**RAPID REFUELER**
**2007-2008 ANNUAL MONITORING REPORT**
**MARINE CORPS AIR STATION, NEW RIVER**
**NORTH CAROLINA**

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## *LIST OF ACRONYMS*

| | |
|---|---|
| AFVR | Aggressive Fluid Vapor Recovery |
| AMR | Annual Monitoring Report |
| AS | Air Station |
| bls | Below Land Surface |
| CAP | Corrective Action Plan |
| DRO | Diesel Range Organics |
| EPA | Environmental Protection Agency |
| EPH | Extractable Petroleum Hydrocarbons |
| FID | Flame Ionization Detector |
| GCL | Gross Contamination Level |
| GRO | Gasoline Range Organics |
| GWQS | Groundwater Quality Standard |
| HDPE | High Density Polyethylene |
| IDW | Investigation Derived Waste |
| NAVFAC | Naval Facilities Engineering Command, Atlantic Division |
| MADEP | Massachusetts Department of Environmental Protection |
| MCB | Marine Corps Base |
| MMPE | Mobile Multi-Phase Extraction |
| NCAC | North Carolina Administrative Code |
| NCDENR | North Carolina Department of Environment and Natural Resources |
| PAHs | Polynuclear Aromatic Hydrocarbons |
| PVC | Poly Vinyl Chloride |
| RR | Rapid Refueler |
| Shaw | Shaw Environmental, Inc. |
| SVOCs | Semi-Volatile Organic Compounds |
| TCLP | Toxicity Characteristic Leaching Procedure |
| TO | Task Order |
| TPH | Total Petroleum Hydrocarbons |
| VOCs | Volatile Organic Compounds |
| VPH | Volatile Petroleum Hydrocarbons |

# *1.0 INTRODUCTION*

## 1.1 Background

Shaw Environmental Inc. (Shaw) was tasked by the Department of the Navy, Naval Facilities Engineering Command, Atlantic Division (NAVFAC) under Contract Number N62470-02-D-3260, Task Order (TO) 0095 to prepare this Annual Monitoring Report (AMR) for the Rapid Refueler A-B Tanks site located at the Marine Corps Air Station, New River, in Onslow County North Carolina. This report covers the operation, maintenance and site efforts from May 2007 through April 2008 and includes the compilation and evaluation of the annual groundwater sample collection in January 2008. The Air Station is associated with Marine Corps Base (MCB) Camp Lejeune, which is a training base for the United States Marine Corps. The MCB covers approximately 236 square miles and includes 14 miles of coastline. MCB Camp Lejeune is bounded to the southeast by the Atlantic Ocean and the northeast by State Route 24. **Figure 1.1** presents the location of the Base depicting the vicinity of this site.

## 1.2 Site Description

The Rapid Refueler Tank System Site is located at the Marine Corps Air Station, New River and is responsible for providing aviation fuels to the flight line. It is located northeast of Instrument Runway 5-23. Fuel is transferred to the Rapid Refueler Tank System Site from the Campbell Street Fuel Farm, also located at the Marine Corps Air Station, New River. The location of the Rapid Refueler Tank System Site is presented in **Figure 1.2**.

The Rapid Refueler Tank System has typically been identified as two sections: section A-B is associated with Building AS-498 and section C-D is associated with structure AS-511. Several releases have been recorded from the system requiring repair and contamination removals. Camp Lejeune employs a pipe leak detection contractor who identified suspect areas using a tracer based method. One area within the A-B section was identified as requiring immediate attention. The pipeline was repaired in January 2005, immediately following discovery of the leak. The site plan map for the Rapid Refueler Tank System is presented in **Figure 1.3**. The pipeline is identified on **Figure 1.3** as Fuel 6".

After the pipeline was repaired, the MCB requested Shaw Environmental Inc. to initiate a remedial action plan prepared by Catlin to collect and recover the released free phase product. The remedial design included a free phase product recovery trench which Shaw installed in October 2005 and is shown on **Figure 3.1** in green. Shaw performed Mobile Multi-Phase

Multi-Phase Extraction (MMPE) events at the free phase product recovery trench on a monthly basis. In addition, Aggressive Fluid Vapor Recovery (AFVR) events were conducted on monitoring wells in the site area that detected the presence of free phase product in excess of 0.60 feet thickness.

### 1.3 Objectives of Remediation

The objective of this remedial action was to measure and recover free phase product from the Rapid Refueler A-B Tanks area to meet the site cleanup goal of less than 0.25-inches of free phase product. Following removal of free product from the site, an evaluation of dissolved hydrocarbon contaminated groundwater would be performed to determine if additional remedial actions are required. The following work was performed at the site as part of the October 2005 remedial action:

- Complete MMPE events from the recovery trench on a monthly schedule for up to one year until free product has been removed from the site.
- Continue AFVR events on monitoring wells in the vicinity that display the presence of free phase product greater than a thickness of 0.6 feet.
- Complete semi-annual groundwater sample collection and analysis from select monitoring wells at the site to track free phase product and dissolved hydrocarbon contamination occurrence.
- Prepare Annual Monitoring Report presenting the data compiled throughout the year.

# *2.0 GROUNDWATER MONITORING METHODS*

## 2.1 Monitoring Well Groundwater Sample Collection (January 2008)

From January 20 through 30, 2008, Shaw purged and sampled 32 groundwater monitoring wells in the vicinity of the Rapid Refueler Building and Buildings AS-511 and AS-498 to obtain water quality samples. Prior to groundwater sample collection, depth to groundwater measurements were collected from each monitoring well. A groundwater sample was collected from each monitoring well that did not show the presence of free phase product or exhibit any other reason that it should not be sampled. Purging consisted of removing a minimum of three well volumes from each monitoring well. Groundwater samples were collected after purging using a low flow sampling technique. The samples were placed in preserved containers supplied by the laboratory. The collected samples were immediately placed in a cooler with ice and sent via overnight courier to Accutest Laboratory located in Orlando, Florida. The samples were analyzed for volatile organic compounds (VOCs) using EPA Method 601/602, semi-volatile organic compounds (SVOCs) using EPA Method 625, extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) using the TPH methods developed by the Massachusetts Department of Environmental Protection (MADEP). Copies of the groundwater sample collection field logs from the January 2008 event are provided in **Appendix A**.

Monitoring wells RR-5, RR-6, RR-7, RR-9, RR-10, RR-11, RR-12, RR-14, RR-15, RR-17, RR-21, RR-22, RR-23, RR6-G, AS511-MW01 through AS511-MW08, AS527-DW02, AS527-MW03, AS527-MW10, AS527-DW06, AS527-MW16, AS497-MW01 through AS497-MW04, and AS497-MW06 were sampled. Monitoring wells RR-16, RR-18, RR-19, RR-20, RR-1G, RR-2G, RR-3G, RR-4G, RR-5G, AS527-MW12, AS512-MW15, and AS497-MW05 were not sampled due to the presence of free phase product. Monitoring wells RR-2, RR-3, RR-4, RR-8, RR-13, AS527-MW04, AS527-DW05, AS527-MW08, AS527-MW09, AS527-MW11, AS527-MW13, and AS527-MW14 were not sampled because they could not be located.

## 2.2 Free Product Recovery

The following sections discuss implementation of free phase product recovery at the site. Recovered liquids (free phase product and groundwater) are transported and disposed in an MCB oil/water separator.

### 2.2.1 Mobile Multi-Phase Extraction (MMPE)

MMPE events have been completed in 2005 and 2006 from the recovery trench. Extraction events occurred on November 8, 2005 (1,305 gallons total fluids recovered), January 19, 2006 (1,800 gallons total fluids recovered), January 27, 2006 (6,900 gallons total fluids recovered), February 10, 2006 (4,800 gallons total fluids recovered) and February 24, 2006 (5,500 gallons total fluids recovered). No additional MMPE events have been conducted since free phase product thickness has not been greater than 0.05 feet in the trench. The trench is checked on a monthly basis and an aggressive fluid vapor recovery (AFVR) event will be performed to remove the free phase product when a thickness greater than 0.60 feet is observed.

### 2.2.2 Aggressive Fluid Vapor Recovery (AFVR) Events

All monitoring wells that have displayed the presence of free phase product have been gauged on a monthly basis. If free phase product is observed in a well at a thickness greater than 0.60 feet, an AFVR event is performed to remove the free phase product from the well by vacuum lift using a vacuum recovery truck. The total gallons of free phase product recovered are calculated from liquid and vapor removal measurements of hydrocarbons from the wells. During May 2007 through April 2008, a total of 12 AFVR events recovering 165.8 gallons of free phase product were completed at the Rapid Refueler area with nine AFVR events for monitoring well RR-18, two AFVR events for RR-1G, and one AFVR event for RR-4G. Shaw increased free phase product recovery efforts conducting additional AFVR events on monitoring wells RR-18 and RR-1G in April 2008 due to anomalous free phase product present downgradient of the plume center. Petroleum hydrocarbon absorbent socks have been placed in wells with a free product thickness of less than 0.6 feet. The socks have been replaced on a monthly basis during monitoring events. During May 2007 through April 2008 the range of measured product thickness in each of the monitoring wells was as follows: RR-1G (0.08 to 15.63 feet), RR-2G (0.01 to 1.08 feet), RR-3G (sheen to 0.02 feet), RR-4G (sheen to 1.15 feet), RR-5G (0.01 to 0.67 feet), RR-12 (0.03 to 0.16 feet), RR-16 (0.02 to 0.71 feet), RR-18 (2.00 to 4.15 feet), RR-19 (sheen to 1.10 feet), RR-20 (0.02 to 1.14 feet), AS497-MW05 (0.03 to 0.43 feet), AS527-MW12 (sheen to 0.16 feet), AS527-MW15 (0.02 to 1.52 feet), and AS527-MW16 (0.16 to 1.01 feet).

Groundwater gauging and free product thicknesses for selected wells are presented in **Table 2.1** from April 2007 through April 2008. The AFVR reports and a summary table of the AFVR reports are provided in **Appendix B**.

# *3.0 GROUNDWATER INVESTIGATION RESULTS*

## 3.1 Groundwater Elevation Measurements

Groundwater elevations at select monitoring wells were measured monthly and during the groundwater sampling event in January 2008.

In January 2008, depth to groundwater ranged from 4.39 feet bls (RR-6) to 10.72 feet bls (AS527-MW03) in the monitoring wells that were sampled. **Table 3.1** presents groundwater elevation data for January 2008. **Figures 3.1 and 3.2** present groundwater elevation contour maps from the January 2008 sampling event for the Type II (shallow) and Type III (deep) monitoring wells, respectively (due to space requirements the UST designation before each well name is left off). Groundwater elevations for the shallow wells ranged from 15.64 feet National Geodedic Vertical Datum (NGVD) in monitoring well RR-21 to 9.50 feet NGVD in monitoring well RR-10. The shallow groundwater flow direction is to the northeast with a hydraulic gradient of 0.0020 ft/ft. Groundwater elevations for the deep wells ranged from 16.33 feet NGVD in monitoring well AS527-DW02 to 10.78 feet NGVD in monitoring well RR-14. The deep groundwater flow direction is to the northeast with a hydraulic gradient of 0.0046 ft/ft.

During the January 2008 sampling event, free phase product was detected in monitoring wells RR-16 (0.02 feet), RR-18 (3.21 feet), RR-19 (0.78 feet), RR-20 (0.08 feet), RR-1G (0.59 feet), RR-2G (1.08), RR-3G (0.02 feet), RR-4G (1.10 feet), RR-5G (0.67 feet), AS527-MW12 (0.01 feet), AS512-MW15 (0.02 feet), and AS497-MW05 (0.28 feet). The estimated extent of free phase product at the site in January 2008 is presented in **Figure 3.3**.

## 3.2 Groundwater Sampling and Analysis

Groundwater samples from select monitoring wells at the site were collected for analysis in January 2008. Laboratory analysis completed on the groundwater samples from 32 monitoring wells sampled in January 2008 include the following analyses: VOCs using EPA Method 601/602, SVOCs using EPA Method 625, and EPH/VPH using MADEP Method. Analytical results are summarized below*:*

*VOCs Method 601/602 Results*: Analytical results from the groundwater samples did not detect VOC compounds above the North Carolina Groundwater Quality Standard (GWQS) except for benzene (GWQS limit = 1 µg/l) which was exceeded in the following monitoring wells:

- RR-12 (benzene 3.2 µg/l)
- RR-10 (benzene 16.4 µg/l)
- RR-17 (benzene 6.3 µg/l)
- AS527-DW02 (benzene 8.4 µg/l)

*SVOCs Method 625 Results*: Analytical results from the groundwater samples did not detect SVOC compounds above North Carolina GWQS except for bis(2-ethylhexyl)phthalate (2.5 µg/l), 2-methylnaphthalene (14 µg/l), and naphthalene (21 µg/l) which were exceeded in the following monitoring wells:

- AS511-MW01 (bis[2-ethylhexyl]phthalate 3.4 J µg/l)
- AS511-MW04 (bis[2-ethylhexyl]phthalate 3.0 J µg/l)
- AS527-MW16 (bis[2-ethylhexyl]phthalate 7.5 µg/l)
- AS527-DW02 (2-methylnaphthalene 25.8 µg/l; naphthalene 131 µg/l)
- AS527-MW10 (bis[2-ethylhexyl]phthalate 447 µg/l; 2-methylnaphthalene 248 µg/l; naphthalene 175 µg/l)
- RR-10 (2-methylnaphthalene 167 µg/l; naphthalene 346 µg/l)
- RR-16 (bis[2-ethylhexyl]phthalate 7.5 µg/l)
- RR-22 (bis[2-ethylhexyl]phthalate 3.8 J µg/l; 2-methylnaphthalene 20.1 µg/l)
- RR-5 (naphthalene 30.6 µg/l)
- RR-12 (naphthalene 107 µg/l)
- RR-23 (naphthalene 31.5 µg/l)
- RR-17 (bis[2-ethylhexyl]phthalate 576 µg/l; 2-methylnaphthalene 82.3 µg/l); naphthalene 136 µg/l)

*MADEP EPH/VPH Results:* Analytical results from the groundwater samples for EPH/VPH compounds exceeded North Carolina GWQS for C9-C18 (4200 µg/l) and C11-C22 (210 µg/l) in the following monitoring wells:

- RR-17 (8,710 µg/l, C9-C18 Aliphatics; 2,380 µg/l, C11-C22 Aromatics [unadjusted])
- RR-22 (233 µg/l, C11-C22 Aromatics [unadjusted])
- AS527-MW10 (14,900 µg/l, C9-C18 Aliphatics; 2,320 µg/l, C11-C22 Aromatics [unadjusted])
- AS527-DW02 (603 µg/l, C11-C22 Aromatics [unadjusted])
- RR-10 (822 µg/l, C11-C22 Aromatics [unadjusted])
- RR-12 (12,300 µg/l, C9-C18 Aliphatics; 3,100 µg/l, C11-C22 Aromatics [unadjusted])

- RR-23 (1,030 µg/l, C11-C22 Aromatics [unadjusted])

The VOCs, SVOCs, and MADEP EPH/VPH groundwater sample analytical results from the January 2008 sampling event are provided in **Table 3.2**, and a benzene concentration contour map is presented in **Figure 3.3**. In addition, all detectable concentrations above the associated GWQS are presented in **Figure 3.4**. The VOCs and SVOCs laboratory analytical reports and the MADEP EPH/VPH laboratory analytical results from the January 2008 event are provided in **Appendix C and D**, respectively.

# *4.0 CONCLUSIONS*

Work to date indicates free phase product is limited to three areas. The first area is defined by monitoring well AS497-MW05 where the free product recovery trench is located. The second area is located in the Rapid Refueler A-B Tank area and is defined by monitoring wells RR-16, RR-18 through RR-20, and RR-1G through RR-5G. The last area is defined by monitoring wells AS527-MW15 and AS527-MW12 adjacent to the fuel pumps. The AFVR events had been successful in removing free phase product from October 2006 to March 2007, and therefore the AFVR events and free product thickness measurement frequency was changed from weekly to monthly starting in June 2007. Petroleum hydrocarbon absorbent socks have been placed in the wells with a free phase product thickness of less than 0.6 feet and replaced on a monthly basis.

The MMPE events at the free phase product recovery trench had been successful in removing free phase product in the area of monitoring wells RR-12 and AS497-MW05. However, no additional MMPE events have been conducted since February 2006 due to free phase product thickness not being greater than 0.05 feet in the trench or in monitoring well RR-12. During the period from March 2007 to March 2008 the free phase product thickness has been reduced in RR-12 from 0.01 feet to none detected and from 0.63 feet to 0.28 feet in AS497-MW05.

Free phase product continues to persist in monitoring wells located in the Rapid Refueler A-B Tank area. The AFVR events had been successful in removing free phase product from March 2007 to December 2007. However, in January 2008 an anomaly of increased free phase product thicknesses was detected in the northeast portion of the A-B Tank area as shown in **Figure 3.3**. Monitoring wells that increased in thickness were RR-1G (0.09 to 0.59 feet), RR-2G (0.02 to 0.90 feet), RR-3G (0.00 to 0.02 feet), RR-4G (0.00 to 1.08 feet), RR-5G (0.54 to 0.67 feet), and RR-20 (0.05 to 0.08 feet). The monitoring wells that decreased in thickness were RR-16 (0.08 to 0.02 feet) and RR-19 (0.97 to 0.78 feet). Monitoring well RR-18 remained at the same thickness (3.21 feet). **Table 2.1** provides the history of groundwater and free product data for the time frame May 2007 to April 2008.

Due to this anomalous free phase product present downgradient of the plume center, Shaw increased free phase product recovery efforts conducting additional AFVR events on monitoring wells RR-18 and RR-1G along with placing petroleum hydrocarbon absorbent

socks in all other wells with a free phase product thickness of less than 0.6 feet and replacing the socks on a monthly basis. The additional free phase product removal activities showed reductions from January 2008 to April 2008 in the following wells: RR-1G (0.59 to 0.08 feet), RR-3G (0.02 to 0.00 feet), RR-4G (0.90 to 0.00 feet), RR-5G (0.67 to 0.43 feet), RR-18 (3.21 to 2.36 feet), and RR-20 (0.08 to 0.00 feet).

The free phase product removal in the area of monitoring well AS527-MW15 (March 2007 at 0.60 feet to April 2008 at 0.37 feet) has been successful without AFVR events in 2007 or 2008. The past AFVR events and present use of petroleum hydrocarbon absorbent socks have been effective in reducing the size of the plume in the area of monitoring well AS527-MW15.

The groundwater sample analytical results completed from the monitoring wells sampled in January 2008 indicate slight reductions in the VOCs, SVOCs, and MADEP EPH/VPH concentrations around the smaller plumes in the areas of buildings AS527 and AS497. However, the VOCs, SVOCs, and MADEP EPH/VPH concentrations have increased from March 2007 to January 2008 in the area downgradient from the largest free phase product plume as shown in monitoring well RR-10 (benzene 6.5 µg/l to 16.4 µg/l, 2-methylnaphthalene 43.3 µg/l to 167 µg/l; naphthalene 137 µg/l to 346 µg/l, and C11-C22 Aromatics 716 µg/l to 822 µg/l), and naphthalene (30.6 µg/l) is present for the first time in monitoring well RR-5. AFVR events have shown the capability to reduce the free product plume presence by increasing the removal of free product in the affected area of the site. The current levels of AFVR events were not able to contain the largest plume area. Shaw believes a more aggressive approach (bi-weekly events) would assist in containing the plume.

# *5.0 RECOMMENDATIONS*

Shaw recommends continued AFVR events at select monitoring wells that demonstrate the presence of free phase product, as needed when free product thicknesses are greater than 0.60 feet. At a minimum, the following monitoring wells should be gauged bi-weekly for the presence of free phase product: RR-12,RR-16, RR-18, RR-19, RR-20, RR-1G, RR-2G, RR-3G, RR-4G, RR-5G, AS527-MW12, AS527-MW15, AS527-MW16, and AS497-MW05. More frequent AFVR events should be performed in the area of monitoring wells RR-18, RR-1G, RR-2G, and RR-4G where free product thicknesses have been more persistent in the past three months and stop the migration downgradient from these wells. Shaw will gauge the wells at 1 and 4 hours after AFVR events to approximate the recharge rate.

Because dissolved phase hydrocarbons were detected in on-site monitoring wells, Shaw recommends the Navy continue the annual groundwater sample collection and analysis for EPA Method 602 with xylenes and MTBE, EPA Method 625 plus TICS, and MADEP EPH/VPH of the 47 monitoring wells at the site to track free phase product and dissolved hydrocarbon contamination occurrence.

# TABLES

**Table 2.1**
**Rapid Refueler Area Air Station, New River**
**Free Product Thicknesses for Selected Wells**
**April 2007 - April 2008**

| Monitoring Well | Date | Well Diameter | TOC Elevation | Depth to Product from TOC | Depth to Water from TOC | Free Product Thickness | Groundwater Elevation |
|---|---|---|---|---|---|---|---|
| RR-1G | 04/10/07 | 6 | 18.23 | 6.21 | 6.24 | 0.03 | 11.99 |
| | 05/16/07 | 6 | 18.23 | | 6.40 | | 11.83 |
| | 07/16/07 | 6 | 18.23 | | 6.78 | | 11.45 |
| | 08/14/07 | 6 | 18.23 | | 6.74 | | 11.49 |
| | 10/29/07 | 6 | 18.23 | 7.00 | 7.13 | 0.13 | 11.10 |
| | 11/27/07 | 6 | 18.23 | 7.6 | 7.72 | 0.12 | 10.51 |
| | 12/18/07 | 6 | 18.23 | 7.48 | 7.57 | 0.09 | 10.66 |
| | 01/20/08 | 6 | 18.23 | 6.62 | 7.21 | 0.59 | 11.02 |
| | 02/04/08 | 6 | 18.23 | 7.31 | 7.62 | 0.31 | 10.61 |
| | 03/26/08 | 6 | 18.23 | | 5.73 | | 12.50 |
| | 04/09/08 | 6 | 18.23 | 4.37 | 20.00 | 15.63 | -1.77 |
| | 04/16/08 | 6 | 18.23 | 5.5 | 5.83 | 0.33 | 12.40 |
| | 04/24/08 | 6 | 18.23 | 5.86 | 5.94 | 0.08 | 12.29 |
| RR-2G | 04/10/07 | 6 | 17.65 | | 6.29 | | 11.36 |
| | 05/16/07 | 6 | 17.65 | | 4.65 | | 13.00 |
| | 07/16/07 | 6 | 17.65 | 3.96 | 3.97 | 0.01 | 13.68 |
| | 08/14/07 | 6 | 17.65 | 4.88 | 4.95 | 0.07 | 12.70 |
| | 10/29/07 | 6 | 17.65 | 3.51 | 3.62 | 0.11 | 14.03 |
| | 11/27/07 | 6 | 17.65 | 4.60 | 4.83 | 0.23 | 12.82 |
| | 12/18/07 | 6 | 17.65 | 5.90 | 6.10 | 0.20 | 11.55 |
| | 01/20/08 | 6 | 17.65 | 4.68 | 5.76 | 1.08 | 11.89 |
| | 02/04/08 | 6 | 17.65 | 4.49 | 4.68 | 0.19 | 12.97 |
| | 03/26/08 | 6 | 17.65 | | 5.21 | | 12.44 |
| | 04/09/08 | 6 | 17.65 | 3.81 | 4.22 | 0.41 | 13.43 |
| | 04/16/08 | 6 | 17.65 | 4.15 | 4.30 | 0.15 | 13.35 |
| | 04/24/08 | 6 | 17.65 | 4.27 | 5.45 | 1.18 | 12.20 |
| RR-3G | 01/20/08 | 6 | 17.41 | 7.48 | 7.50 | 0.02 | 9.91 |
| | 03/26/08 | 6 | 17.41 | | 6.34 | | 11.07 |
| | 04/09/08 | 6 | 17.41 | | 5.66 | | 11.75 |
| | 04/16/08 | 6 | 17.41 | | 6.04 | | 11.37 |
| | 04/24/08 | 6 | 17.41 | | 6.23 | | 11.18 |
| RR-4G | 01/20/08 | 6 | 17.94 | 4.81 | 5.71 | 0.90 | 12.23 |
| | 03/26/08 | 6 | 17.94 | 4.55 | 5.70 | 1.15 | 12.24 |
| | 04/09/08 | 6 | 17.94 | 3.81 | 4.22 | 0.41 | 13.72 |
| | 04/16/08 | 6 | 17.94 | | 6.10 | | 11.84 |
| | 04/24/08 | 6 | 17.94 | | 5.41 | | 12.53 |

**Table 2.1**
**Rapid Refueler Area Air Station, New River**
**Free Product Thicknesses for Selected Wells**
**April 2007 - April 2008**

| Monitoring Well | Date | Well Diameter | TOC Elevation | Depth to Product from TOC | Depth to Water from TOC | Free Product Thickness | Groundwater Elevation |
|---|---|---|---|---|---|---|---|
| RR-5G | 04/10/07 | 6 | 19.33 | 7.45 | 7.48 | 0.03 | 11.85 |
| | 05/16/07 | 6 | 19.33 | 7.7 | 7.75 | 0.05 | 11.58 |
| | 07/16/07 | 6 | 19.33 | 8.14 | 8.25 | 0.11 | 11.08 |
| | 08/14/07 | 6 | 19.33 | | 8.02 | | 11.31 |
| | 10/29/07 | 6 | 19.33 | | 8.43 | | 10.90 |
| | 11/27/07 | 6 | 19.33 | | 8.86 | | 10.47 |
| | 12/18/07 | 6 | 19.33 | 8.42 | 8.60 | 0.18 | 10.73 |
| | 01/20/08 | 6 | 19.33 | 4.42 | 5.09 | 0.67 | 14.24 |
| | 02/04/08 | 6 | 19.33 | 4.81 | 5.09 | 0.28 | 14.24 |
| | 03/26/08 | 6 | 19.33 | 6.24 | 6.75 | 0.51 | 12.58 |
| | 04/09/08 | 6 | 19.33 | 3.19 | 3.72 | 0.53 | 15.61 |
| | 04/16/08 | 6 | 19.33 | 4.5 | 4.79 | 0.29 | 14.54 |
| | 04/24/08 | 6 | 19.33 | 6.39 | 6.82 | 0.43 | 12.51 |
| RR-9 | 04/10/07 | 2 | 20.81 | | 8.78 | | 12.03 |
| | 05/16/07 | 2 | 20.81 | | 8.80 | | 12.01 |
| | 07/16/07 | 2 | 20.81 | | 9.30 | | 11.51 |
| | 08/14/07 | 2 | 20.81 | | 9.30 | | 11.51 |
| | 10/29/07 | 2 | 20.81 | | 9.44 | | 11.37 |
| | 11/27/07 | 2 | 20.81 | | 9.69 | | 11.12 |
| | 12/18/07 | 2 | 20.81 | | 9.81 | | 11.00 |
| | 01/20/08 | 2 | 20.81 | | 9.68 | | 11.13 |
| | 02/04/08 | 2 | 20.81 | | 9.68 | | 11.13 |
| | 03/26/08 | 2 | 20.81 | | NM | | NM |
| | 04/09/08 | 2 | 20.81 | | 7.47 | | 13.34 |
| | 04/16/08 | 2 | 20.81 | | NM | | NM |
| | 04/24/08 | 2 | 20.81 | | 8.17 | | 12.64 |
| RR-12 | 04/10/07 | 2 | 16.86 | 5.62 | 5.68 | 0.06 | 11.18 |
| | 05/16/07 | 2 | 16.86 | 5.81 | 5.97 | 0.16 | 10.89 |
| | 07/16/07 | 2 | 16.86 | 6.18 | 6.31 | 0.13 | 10.55 |
| | 08/14/07 | 2 | 16.86 | 5.88 | 5.91 | 0.03 | 10.95 |
| | 09/19/07 | 2 | 16.86 | 6.38 | 6.46 | 0.08 | 10.40 |
| | 10/29/07 | 2 | 16.86 | | 5.67 | | 11.19 |
| | 11/27/07 | 2 | 16.86 | | 6.73 | | 10.13 |
| | 12/18/07 | 2 | 16.86 | | 6.07 | | 10.79 |
| | 01/20/08 | 2 | 16.86 | | 5.55 | | 11.31 |
| | 02/04/08 | 2 | 16.86 | | 5.55 | | 11.31 |
| | 03/26/08 | 2 | 16.86 | | NM | | NM |
| | 04/09/08 | 2 | 16.86 | | 4.31 | | 12.55 |
| | 04/16/08 | 2 | 16.86 | | NM | | NM |
| | 04/24/08 | 2 | 16.86 | | 4.70 | | 12.16 |

**Table 2.1**
**Rapid Refueler Area Air Station, New River**
**Free Product Thicknesses for Selected Wells**
**April 2007 - April 2008**

| Monitoring Well | Date | Well Diameter | TOC Elevation | Depth to Product from TOC | Depth to Water from TOC | Free Product Thickness | Groundwater Elevation |
|---|---|---|---|---|---|---|---|
| RR-16 | 04/10/07 | 4 | 20.01 | 8.58 | 8.68 | 0.10 | 11.33 |
| | 05/16/07 | 4 | 20.01 | 8.41 | 8.70 | 0.29 | 11.31 |
| | 07/16/07 | 4 | 20.01 | 8.43 | 8.95 | 0.52 | 11.06 |
| | 08/14/07 | 4 | 20.01 | 8.34 | 8.64 | 0.30 | 11.37 |
| | 10/29/07 | 4 | 20.01 | 9.00 | 9.28 | 0.28 | 10.73 |
| | 11/27/07 | 4 | 20.01 | 9.37 | 9.45 | 0.08 | 10.56 |
| | 12/18/07 | 4 | 20.01 | 8.61 | 8.95 | 0.34 | 11.06 |
| | 01/20/08 | 4 | 20.01 | 9.19 | 9.21 | 0.02 | 10.80 |
| | 02/04/08 | 4 | 20.01 | 9.17 | 9.19 | 0.02 | 10.82 |
| | 03/26/08 | 4 | 20.01 | | NM | | NM |
| | 04/09/08 | 4 | 20.01 | 6.95 | 7.57 | 0.62 | 12.44 |
| | 04/16/08 | 4 | 20.01 | 7.63 | 7.82 | 0.19 | 12.19 |
| | 04/24/08 | 4 | 20.01 | 7.69 | 8.40 | 0.71 | 11.61 |
| RR-18 | 04/10/07 | 4 | 20.90 | 8.23 | 11.33 | 3.10 | 9.57 |
| | 05/16/07 | 4 | 20.90 | 8.52 | 11.20 | 2.68 | 9.70 |
| | 07/16/07 | 4 | 20.90 | 8.91 | 12.14 | 3.23 | 8.76 |
| | 08/14/07 | 4 | 20.90 | | 8.87 | | 12.03 |
| | 09/19/07 | 4 | 20.90 | 9.18 | 12.90 | 3.72 | 8.00 |
| | 10/29/07 | 4 | 20.90 | | 9.25 | | 11.65 |
| | 11/27/07 | 4 | 20.90 | 9.60 | 13.75 | 4.15 | 7.15 |
| | 12/18/07 | 4 | 20.90 | 9.6 | 13.10 | 3.50 | 7.80 |
| | 01/20/08 | 4 | 20.90 | 9.55 | 12.76 | 3.21 | 8.14 |
| | 02/04/08 | 4 | 20.90 | 9.55 | 12.76 | 3.21 | 8.14 |
| | 03/26/08 | 4 | 20.90 | 8.04 | 10.04 | 2.00 | 10.86 |
| | 04/09/08 | 4 | 20.90 | 6.92 | 9.14 | 2.22 | 11.76 |
| | 04/16/08 | 4 | 20.90 | 7.43 | 9.43 | 2.00 | 11.47 |
| | 04/24/08 | 4 | 20.90 | 7.66 | 10.02 | 2.36 | 10.88 |
| RR-20 | 04/10/07 | 2 | 21.71 | 7.78 | 7.80 | 0.02 | 13.91 |
| | 05/16/07 | 2 | 21.71 | 8.23 | 8.90 | 0.67 | 12.81 |
| | 07/16/07 | 2 | 21.71 | 9.31 | 10.45 | 1.14 | 11.26 |
| | 08/14/07 | 2 | 21.71 | 9.51 | 9.68 | 0.17 | 12.03 |
| | 10/29/07 | 2 | 21.71 | | 10.65 | | 11.06 |
| | 11/27/07 | 2 | 21.71 | | 10.88 | | 10.83 |
| | 12/18/07 | 2 | 21.71 | 11.14 | 11.42 | 0.28 | 10.29 |
| | 01/20/08 | 2 | 21.71 | 10.81 | 10.89 | 0.08 | 10.82 |
| | 02/04/08 | 2 | 21.71 | 10.81 | 10.89 | 0.08 | 10.82 |
| | 03/26/08 | 2 | 21.71 | 8.83 | 8.85 | 0.02 | 12.86 |
| | 04/09/08 | 2 | 21.71 | | 7.42 | | 14.29 |
| | 04/16/08 | 2 | 21.71 | | 7.54 | | 14.17 |
| | 04/24/08 | 2 | 21.71 | | 7.63 | | 14.08 |

**Table 2.1**
**Rapid Refueler Area Air Station, New River**
**Free Product Thicknesses for Selected Wells**
**April 2007 - April 2008**

| Monitoring Well | Date | Well Diameter | TOC Elevation | Depth to Product from TOC | Depth to Water from TOC | Free Product Thickness | Groundwater Elevation |
|---|---|---|---|---|---|---|---|
| AS527-15 | 04/10/07 | 2 | 21.87 | 7.22 | 7.53 | 0.31 | 14.34 |
| | 05/16/07 | 2 | 21.87 | 7.6 | 8.02 | 0.42 | 13.85 |
| | 07/16/07 | 2 | 21.87 | 8.31 | 9.83 | 1.52 | 12.04 |
| | 08/14/07 | 2 | 21.87 | 8.5 | 9.01 | 0.51 | 12.86 |
| | 10/29/07 | 2 | 21.87 | 9.3 | 9.52 | 0.22 | 12.35 |
| | 11/27/07 | 2 | 21.87 | 9.57 | 9.87 | 0.30 | 12.00 |
| | 12/18/07 | 2 | 21.87 | 9.15 | 9.37 | 0.22 | 12.50 |
| | 01/20/08 | 2 | 21.87 | NM | NM | 0.02 | NM |
| | 02/04/08 | 2 | 21.87 | 8.67 | 8.73 | 0.06 | 13.14 |
| | 03/26/08 | 2 | 21.87 | 7.77 | 7.94 | 0.17 | 13.93 |
| | 04/09/08 | 2 | 21.87 | 7.28 | 7.36 | 0.08 | 14.51 |
| | 04/16/08 | 2 | 21.87 | | 7.01 | | 14.86 |
| | 04/24/08 | 2 | 21.87 | 6.67 | 7.04 | 0.37 | 14.83 |
| AS527-16 | 04/10/07 | 2 | 20.15 | 7.74 | 8.75 | 1.01 | 11.40 |
| | 05/16/07 | 2 | 20.15 | 8.09 | 8.62 | 0.53 | 11.53 |
| | 07/16/07 | 2 | 20.15 | 8.43 | 8.95 | 0.52 | 11.20 |
| | 08/14/07 | 2 | 20.15 | | 9.07 | | 11.08 |
| | 10/29/07 | 2 | 20.15 | 8.41 | 8.57 | 0.16 | 11.58 |
| | 11/27/07 | 2 | 20.15 | 8.54 | 8.83 | 0.29 | 11.32 |
| | 12/18/07 | 2 | 20.15 | 8.61 | 8.95 | 0.34 | 11.20 |
| | 01/20/08 | 2 | 20.15 | | 8.34 | | 11.81 |
| | 02/04/08 | 2 | 20.15 | | 8.34 | | 11.81 |
| | 03/26/08 | 2 | 20.15 | | NM | | NM |

**Table 3.1**
**Rapid Refueler Area Air Station, New River**
**Well Gauging (Groundwater and Free Product)**
**January 2008**

| | | | | 1/21/2008 | | | |
|---|---|---|---|---|---|---|---|
| Well ID | Well Diameter | DTB | TOC Elevation | DTW | DTP | Product Thickness | Groundwater elevation |
| RR-1 | Not Located | | | | | | |
| RR-2 | 2 | 14.07 | NM | NL | | | NL |
| RR-3 | 2 | 13.95 | NM | NL | | | NL |
| RR-4 | Not Located | | | | | | |
| RR-5 | 2 | 14.46 | 17.81 | 7.93 | | | 9.88 |
| RR-6 | 2 | 13.08 | 15.55 | 4.39 | | | 11.16 |
| RR-7 | 2 | 14.7 | 17.59 | 7.15 | | | 10.44 |
| RR-8 | Not Located | | | | | | |
| RR-9 | 2 | 14.99 | 20.81 | 9.68 | | | 11.13 |
| RR-10 | 2 | 14.93 | 17.39 | 7.89 | | | 9.5 |
| RR-11 | 2 | 14.7 | 17.11 | 6.51 | | | 10.6 |
| RR-12 | 2 | 14.95 | 16.86 | 5.55 | | | 11.31 |
| RR-13 | Not Located | | | | | | |
| RR-14 | 2 | 48.1 | 17.21 | 6.43 | | | 10.78 |
| RR-15 | 6 | 30.83 | 17.17 | 6.58 | | | 10.59 |
| RR-16 | 4 | 14.1 | 20.01 | 9.21 | 9.19 | 0.02 | 10.80 |
| RR-17 | 2 | 9.9 | 16.8 | 4.57 | | | NM |
| RR-18 | 4 | 14.55 | 20.9 | 12.76 | 9.55 | 3.21 | 8.14 |
| RR-19 | 2 | 15 | 21.08 | 9.65 | 8.87 | 0.78 | 11.43 |
| RR-20 | 2 | 15 | 21.71 | 10.89 | 10.81 | 0.08 | 10.82 |
| RR-21 | 2 | 13.85 | 20.93 | 5.29 | | | 15.64 |
| RR-22 | 4 | 14.5 | 21.13 | 9.47 | | | 11.66 |
| RR-23 | 2 | 13.58 | 19.6 | 8.38 | | | 11.22 |
| RR-1G | 6 | 16.88 | 18.23 | 7.21 | 6.62 | 0.59 | 11.02 |
| RR-2G | 6 | 24.3 | 17.65 | 5.76 | 4.68 | 1.08 | 11.89 |
| RR-3G | 6 | 21.62 | 17.41 | 7.50 | 7.48 | 0.02 | 9.91 |
| RR-4G | 6 | 20.45 | 17.94 | 5.71 | 4.81 | 0.90 | 12.23 |
| RR-5G | 6 | 23 | 19.33 | 5.09 | 4.42 | 0.67 | 14.24 |
| RR-6G | 6 | 21.85 | 18.17 | 7.49 | | | 10.68 |
| AS511-1 | 2 | 14.13 | 20.76 | 8.93 | | | 11.83 |
| AS511-2 | 2 | 14.9 | 21.02 | 8.61 | | | 12.41 |
| AS511-3 | 2 | 15.1 | 21.72 | 9.85 | | | 11.87 |
| AS511-4 | 2 | 13.6 | 21.79 | 9.46 | | | 12.33 |
| AS511-5 | 2 | 49.35 | 21.29 | 8.99 | | | 12.30 |
| AS511-6 | 2 | 49.13 | 21 | 9.01 | | | 11.99 |
| AS511-7 | 2 | 49.25 | 21.7 | 9.80 | | | 11.90 |
| AS511-8 | 2 | 14.17 | 21.63 | 9.48 | | | 12.15 |
| AS527-MW3 | 2 | 15.25 | 21.73 | 10.72 | | | 11.01 |
| AS527-MW4 | 2 | 14.47 | 22.86 | NL | | | NL |
| AS527-MW8 | Not Located | | | | | | |
| AS527-MW9 | Not Located | | | | | | |
| AS527-MW10 | 2 | 14 | 21.78 | 10.07 | | | 11.71 |
| AS527-MW11 | Not Located | | | | | | |
| AS527-MW12 | 2 | 13.9 | 21.45 | 9.80 | 9.79 | 0.01 | 11.65 |
| AS527-MW13 | Not Located | | | | | | |
| AS527-DW2 | 2 | 28.7 | 21.46 | 5.13 | | | 16.33 |
| AS527-DW5 | Not Located | | | | | | |
| AS527-DW6 | 2 | 46.75 | 20.34 | 7.55 | | | 12.79 |
| AS527-MW15 | 2 | 12 | 21.87 | Sock | in Well | 0.02 | NM |
| AS527-MW16 | 2 | 12 | 20.15 | 8.34 | | | 11.81 |
| AS497-MW01 | 2 | 13.95 | 18.35 | 6.57 | | | 11.78 |
| AS497-MW02 | 2 | 14.45 | 20.71 | 8.78 | | | 11.93 |
| AS497-MW03 | 2 | 13.9 | 18.54 | 7.20 | | | 11.34 |
| AS497-MW04 | 2 | 14 | NM | 7.08 | | | NM |
| AS497-MW05 | 2 | 14 | 17.05 | 6.26 | 5.98 | 0.28 | 10.79 |
| AS497-MW06 | 2 | 49.3 | 18.1 | 7.02 | 0 | | 11.08 |
| | | | | | | | |

NM = Not Measured NL=Not Located
DTB = Depth to bottom of well (feet)
DTP = Depth to product (feet)
Monitoring Wells were Resurveyed in August 2006

**Table 3.2**
**Rapid Refueler**
**VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results**
**January 2008**

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 602 | | | | | | | | | | 625 (8270C) | | | | | | | | | |
| Contaminant of Concern | | | Benzene | Chlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | Ethylbenzene | Methyl-tert-butyl ether | Toluene | Xylenes (total) | Benzoic acid | 2-Chlorophenol | 4-Chloro-3-methylphenol | 2,4-Dichlorophenol | 2,4-Dimethylphenol | 2,4-Dinitrophenol | 4,6-Dinitro-o-cresol | 2-Methylphenol | 3&4-Methylphenol | 2-Nitrophenol |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | |
| USTAS497-MW01 (Accutest F55407-6) | 1/29/2008 | 6.57 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW02 (Accutest F55407-7) | 1/29/2008 | 8.78 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.5 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW03 (Accutest F55407-3) | 1/29/2008 | 7.20 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW04 (Accutest F55407-2) | 1/29/2008 | 7.08 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW06 (Accutest F55407-4) | 1/29/2008 | 7.02 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| | | GWQS (ug/L) | 1 | 50 | 24 | 170 | 1.4 | 550 | 200 | 1000 | 530 | 28000 | NS | NS | NS | 140 | NS | NS | NS | NS | NS |
| | | GCL (ug/L) | 5000 | NS | 72500 | 61500 | 39500 | 29000 | 200000 | 257500 | 87500 | 1450000 | NS | NS | NS | 140000 | NS | NS | NS | NS | NS |

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | |
| Contaminant of Concern | | | Chrysene | Bis(2-chloroethoxy)methane | Bis(2-chloroethyl)ether | Bis(2-chloroisopropyl)ether | 4-Chlorophenyl phenyl ether | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 3,3'-Dichlorobenzidine | Dibenzo(a,h)anthracene | Dibenzofuran | Di-n-butyl phthalate | Di-n-octyl phthalate | Diethyl phthalate | Dimethyl phthalate | Bis(2-ethylhexyl)phthalate | Fluoranthene |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | |
| USTAS497-MW01 (Accutest F55407-6) | 1/29/2008 | 6.57 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW02 (Accutest F55407-7) | 1/29/2008 | 8.78 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW03 (Accutest F55407-3) | 1/29/2008 | 7.20 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW04 (Accutest F55407-2) | 1/29/2008 | 7.08 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS497-MW06 (Accutest F55407-4) | 1/29/2008 | 7.02 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| | | GWQS (ug/L) | 4.79 | NS | 0.031 | NS | NS | 24 | 170 | 1.4 | NS | NS | NS | 0.0047 | 28 | NS | NS | NS | NS | 2.5 | 280 |
| | | GCL (ug/L) | 0.8 | NS | 31 | NS | NS | 24000 | 61500 | 39500 | NS | NS | NS | 0.25 | 28000 | NS | NS | NS | NS | 2500 | 280 |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

**Table 3.2**
**Rapid Refueler**
**VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results**
**January 2008**

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP VPH | |
| Contaminant of Concern | | | 4-Nitrophenol | Pentachlorophenol | Phenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | 4-Bromophenyl phenyl ether | Butyl benzyl phthalate | Benzyl alcohol | 2-Chloronaphthalene | 4-Chloroaniline | Carbazole | C5- C8 Aliphatics (Unadj | C9- C12 Aliphatics (Unadj | C9- C10 Aromatics (Unadj |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | |
| USTAS497-MW01 (Accutest F55407-6) | 1/29/2008 | 6.57 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTAS497-MW02 (Accutest F55407-7) | 1/29/2008 | 6.78 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <75 | <55 | <20 |
| USTAS497-MW03 (Accutest F55407-3) | 1/29/2008 | 7.20 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <75 | <55 | <20 |
| USTAS497-MW04 (Accutest F55407-2) | 1/29/2008 | 7.08 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <75 | <55 | <20 |
| USTAS497-MW06 (Accutest F55407-4) | 1/29/2008 | 7.02 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <75 | <55 | <20 |
| GWQS (ug/L) | | | NS | 0.29 | 300 | NS | NS | 80 | 210 | 2100 | 0.0479 | 0.00479 | 0.0479 | 210 | 0.479 | NS | 100 | NS | NS | NS | NS | 420 | NS | NS |
| GCL (ug/L) | | | NS | 290 | 300000 | NS | NS | 2120 | 1965 | 2100 | 22 | 1.5 | 0.6 | 210 | 0.47 | NS | NS | NS | NS | NS | NS | NS | NS | NS |

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP-EPH-98-1 | |
| Contaminant of Concern | | | Fluorene | Hexachlorobenzene | Hexachlorobutadiene | Hexachlorocyclopentadiene | Hexachloroethane | Indeno(1,2,3-cd)pyrene | Isophorone | 2-Methylnaphthalene | 2-Nitroaniline | 3-Nitroaniline | 4-Nitroaniline | Naphthalene | Nitrobenzene | N-Nitroso-di-n-propylamine | N-Nitrosodiphenylamine | Phenanthrene | Pyrene | 1,2,4-Trichlorobenzene | C11-C22 Aromatics (Unadj | C9-C18 Aliphatics | C19-C36 Aliphatics |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | |
| USTAS497-MW01 (Accutest F55407-6) | 1/29/2008 | 6.57 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTAS497-MW02 (Accutest F55407-7) | 1/29/2008 | 6.78 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <9.5 | <9.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTAS497-MW03 (Accutest F55407-3) | 1/29/2008 | 7.20 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTAS497-MW04 (Accutest F55407-2) | 1/29/2008 | 7.08 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <95 | <95 | <95 |
| USTAS497-MW06 (Accutest F55407-4) | 1/29/2008 | 7.02 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| GWQS (ug/L) | | | 280 | NS | 0.44 | NS | NS | 0.0479 | NS | 14 | NS | NS | NS | 21 | NS | NS | NS | 210 | 210 | 70 | 210 | 4200 | 42000 |
| GCL (ug/L) | | | 950 | NS | 440 | NS | NS | 31 | NS | 12500 | NS | NS | NS | 15500 | NS | NS | NS | 410 | 210 | 9500 | NS | NS | NS |

Indicate method detection limit for contaminants when analyzed but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

**Table 3.2**
**Rapid Refueler**
**VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results**
**January 2008**

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 602 | | | | | | | | | 625 (8270C) | | | | | | | | | |
| Contaminant of Concern | | | Benzene | Chlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | Ethylbenzene | Methyl-tert-butyl ether | Toluene | Xylenes (total) | Benzoic acid | 2-Chlorophenol | 4-Chloro-3-methylphenol | 2,4-Dichlorophenol | 2,4-Dimethylphenol | 2,4-Dinitrophenol | 4,6-Dinitro-o-cresol | 2-Methylphenol | 3&4-Methylphenol | 2-Nitrophenol |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW1 (Accutest F55227-5) | 1/21/2008 | 8.93 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.5 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW2 (Accutest F55407-8) | 1/29/2008 | 8.61 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW03 (AccutestF55436-1) | 1/30/2008 | 9.85 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <24 | <9.7 | <4.9 | <4.9 | <4.9 |
| USTAS511-MW04 (Accutest F55338-4) | 1/24/2008 | 9.46 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 1.4 | <1.0 | <1.0 | 1.0 J | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW5 (Accutest F55227-6) | 1/21/2008 | 8.99 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.5 | <4.8 | <4.8 | <4.8 |
| | | GWQS (ug/L) | 1 | 50 | 24 | 170 | 1.4 | 550 | 200 | 1000 | 530 | 28000 | NS | NS | NS | 140 | NS | NS | NS | NS | NS |
| | | GCL (ug/L) | 5000 | NS | 72500 | 61500 | 39500 | 29000 | 200000 | 257500 | 87500 | 1450000 | NS | NS | NS | 140000 | NS | NS | NS | NS | NS |

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | |
| Contaminant of Concern | | | Chrysene | Bis(2-chloroethoxy)methane | Bis(2-chloroethyl)ether | Bis(2-chloroisopropyl)ether | 4-Chlorophenyl phenyl ether | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 3,3'-Dichlorobenzidine | Dibenzo(a,h)anthracene | Dibenzofuran | Di-n-butyl phthalate | Di-n-octyl phthalate | Diethyl phthalate | Dimethyl phthalate | Bis(2-ethylhexyl)phthalate | Fluoranthene |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW1 (Accutest F55227-5) | 1/21/2008 | 8.93 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 3.4 J | <4.8 |
| USTAS511-MW2 (Accutest F55407-8) | 1/29/2008 | 8.61 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW03 (AccutestF55436-1) | 1/30/2008 | 9.85 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 |
| USTAS511-MW04 (Accutest F55338-4) | 1/24/2008 | 9.46 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 3.0 J | <4.8 |
| USTAS511-MW5 (Accutest F55227-6) | 1/21/2008 | 8.99 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| | | GWQS (ug/L) | 4.79 | NS | 0.031 | NS | NS | 24 | 170 | 1.4 | NS | NS | NS | 0.0047 | 28 | NS | NS | NS | NS | 2.5 | 280 |
| | | GCL (ug/L) | 0.8 | NS | 31 | NS | NS | 24000 | 61500 | 39500 | NS | NS | NS | 0.25 | 28000 | NS | NS | NS | NS | 2500 | 280 |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

Table 3.2
Rapid Refueler
VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results
January 2008

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP VPH | | |
| Contaminant of Concern | | | 4-Nitrophenol | Pentachlorophenol | Phenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | 4-Bromophenyl phenyl ether | Butyl benzyl phthalate | Benzyl alcohol | 2-Chloronaphthalene | 4-Chloroaniline | Carbazole | C5- C8 Aliphatics (Unadj) | C9- C12 Aliphatics (Unadj) | C9- C10 Aromatics (Unadj) |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW1 (Accutest F55227-5) | 1/21/2008 | 8.93 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <75 | 92.7 | 96.1 |
| USTAS511-MW2 (Accutest F55407-8) | 1/29/2008 | 8.61 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <75 | <55 | <20 |
| USTAS511-MW03 (AccutestF55436-1) | 1/30/2008 | 9.85 | <24 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <4.9 | <75 | <55 | <20 |
| USTAS511-MW04 (Accutest F55338-4) | 1/24/2008 | 9.46 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <75 | <55 | 26.1 |
| USTAS511-MW5 (Accutest F55227-6) | 1/21/2008 | 8.99 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | 18.6 J |
| | | GWQS (ug/L) | NS | 0.29 | 300 | NS | NS | 80 | 210 | 2100 | 0.0479 | 0.00479 | 0.0479 | 210 | 0.479 | NS | 100 | NS | NS | NS | NS | 420 | NS | NS |
| | | GCL (ug/L) | NS | 290 | 300000 | NS | NS | 2120 | 1965 | 2100 | 22 | 1.5 | 0.6 | 210 | 0.47 | NS | NS | NS | NS | NS | NS | NS | NS | NS |

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP-EPH-98-1 | | |
| Contaminant of Concern | | | Fluorene | Hexachlorobenzene | Hexachlorobutadiene | Hexachlorocyclopentadiene | Hexachloroethane | Indeno(1,2,3-cd)pyrene | Isophorone | 2-Methylnaphthalene | 2-Nitroaniline | 3-Nitroaniline | 4-Nitroaniline | Naphthalene | Nitrobenzene | N-Nitroso-di-n-propylamine | N-Nitrosodiphenylamine | Phenanthrene | Pyrene | 1,2,4-Trichlorobenzene | C11-C22 Aromatics (Unadj) | C9-C18 Aliphatics | C19-C36 Aliphatics |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW1 (Accutest F55227-5) | 1/21/2008 | 8.93 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 2.1 J | <9.5 | <9.5 | <9.5 | 3.2 J | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 180 | 87 | <95 |
| USTAS511-MW2 (Accutest F55407-8) | 1/29/2008 | 8.61 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTAS511-MW03 (AccutestF55436-1) | 1/30/2008 | 9.85 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <9.7 | <9.7 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <100 | <100 | <100 |
| USTAS511-MW04 (Accutest F55338-4) | 1/24/2008 | 9.46 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 1.1 J | <9.6 | <9.6 | <9.6 | 5.4 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTAS511-MW5 (Accutest F55227-6) | 1/21/2008 | 8.99 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 1.3 J | <9.5 | <9.5 | <9.5 | 2.2 J | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <95 | <95 | <95 |
| | | GWQS (ug/L) | 280 | NS | 0.44 | NS | NS | 0.0479 | NS | 14 | NS | NS | NS | 21 | NS | NS | NS | 210 | 210 | 70 | 210 | 4200 | 42000 |
| | | GCL (ug/L) | 950 | NS | 440 | NS | NS | 31 | NS | 12500 | NS | NS | NS | 15500 | NS | NS | NS | 410 | 210 | 9500 | NS | NS | NS |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

**Table 3.2**
**Rapid Refueler**
**VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results**
**January 2008**

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 602 | | | | | | | | | 625 (8270C) | | | | | | | | | | |
| Contaminant of Concern | | | Benzene | Chlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | Ethylbenzene | Methyl-tert-butyl ether | Toluene | Xylenes (total) | Benzoic acid | 2-Chlorophenol | 4-Chloro-3-methylphenol | 2,4-Dichlorophenol | 2,4-Dimethylphenol | 2,4-Dinitrophenol | 4,6-Dinitro-o-cresol | 2-Methylphenol | 3&4-Methylphenol | 2-Nitrophenol |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW06 (Accutest F55407-9) | 1/29/2008 | 9.01 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW07 (AccutestF55436-2) | 1/30/2008 | 9.60 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW08 (Accutest F55436-3) | 1/30/2008 | 9.48 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW22 (Accutest F55407-10) | 1/29/2008 | 9.47 | <1.0 | <1.0 | <9.0 | <4.0 | <4.0 | 2.2 | <1.0 | <1.0 | 4.9 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTAS527-MW16 (Accutest F55338-3) | 1/24/2008 | 8.34 | <1.0 | <1.0 | 3.1 | <2.0 | <2.0 | 4.2 | <1.0 | <1.0 | 4.7 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| | | GWQS (ug/L) | 1 | 50 | 24 | 170 | 1.4 | 550 | 200 | 1000 | 530 | 28000 | NS | NS | NS | 140 | NS | NS | NS | NS | NS |
| | | GCL (ug/L) | 5000 | NS | 72500 | 61500 | 39500 | 29000 | 200000 | 257500 | 87500 | 1450000 | NS | NS | NS | 140000 | NS | NS | NS | NS | NS |

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | |
| Contaminant of Concern | | | Chrysene | Bis(2-chloroethoxy)methane | Bis(2-chloroethyl)ether | Bis(2-chloroisopropyl)ether | 4-Chlorophenyl phenyl ether | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 3,3'-Dichlorobenzidine | Dibenzo(a,h)anthracene | Dibenzofuran | Di-n-butyl phthalate | Di-n-octyl phthalate | Diethyl phthalate | Dimethyl phthalate | Bis(2-ethylhexyl)phthalate | Fluoranthene |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW06 (Accutest F55407-9) | 1/29/2008 | 9.01 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW07 (AccutestF55436-2) | 1/30/2008 | 9.60 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS511-MW08 (Accutest F55436-3) | 1/30/2008 | 9.48 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW22 (Accutest F55407-10) | 1/29/2008 | 9.47 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 3.8 J | <4.8 |
| USTAS527-MW16 (Accutest F55338-3) | 1/24/2008 | 8.34 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 7.5 | <4.8 |
| | | GWQS (ug/L) | 4.79 | NS | 0.031 | NS | NS | 24 | 170 | 1.4 | NS | NS | NS | 0.0047 | 28 | NS | NS | NS | NS | NS | 2.5 | 280 |
| | | GCL (ug/L) | 0.8 | NS | 31 | NS | NS | 24000 | 61500 | 39500 | NS | NS | NS | 0.25 | 28000 | NS | NS | NS | NS | NS | 2500 | 280 |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
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Table 3.2
Rapid Refueler
VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results
January 2008

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | | | MADEP VPH | | |
| Contaminant of Concern | | | 4-Nitrophenol | Pentachlorophenol | Phenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | 4-Bromophenyl phenyl ether | Butyl benzyl phthalate | Benzyl alcohol | 2-Chloronaphthalene | 4-Chloroaniline | Carbazole | C5- C8 Aliphatics (Unadj) | C9- C12 Aliphatics (Unadj) | C9- C10 Aromatics (Unadj) |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW06 (Accutest F55407-9) | 1/29/2008 | 9.01 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTAS511-MW07 (AccutestF55436-2) | 1/30/2008 | 9.80 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTAS511-MW08 (Accutest F55436-3) | 1/30/2008 | 9.48 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTRR-MW22 (Accutest F55407-10) | 1/29/2008 | 9.47 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTAS527-MW16 (Accutest F55338-3) | 1/24/2008 | 8.34 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | 196 | 136 |
| | | GWQS (ug/L) | NS | 0.29 | 300 | NS | NS | 80 | 210 | 2100 | 0.0479 | 0.00479 | 0.0479 | 210 | 0.479 | NS | 100 | NS | NS | NS | NS | NS | 420 | NS | NS |
| | | GCL (ug/L) | NS | 290 | 300000 | NS | NS | 2120 | 1965 | 2100 | 22 | 1.5 | 0.6 | 210 | 0.47 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS |

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP-EPH-98-1 | | |
| Contaminant of Concern | | | Fluorene | Hexachlorobenzene | Hexachlorobutadiene | Hexachlorocyclopentadiene | Hexachloroethane | Indeno(1,2,3-cd)pyrene | Isophorone | 2-Methylnaphthalene | 2-Nitroaniline | 3-Nitroaniline | 4-Nitroaniline | Naphthalene | Nitrobenzene | N-Nitroso-di-n-propylamine | N-Nitrosodiphenylamine | Phenanthrene | Pyrene | 1,2,4-Trichlorobenzene | C11-C22 Aromatics (Unadj) | C9-C18 Aliphatics | C19-C36 Aliphatics |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | |
| USTAS511-MW06 (Accutest F55407-9) | 1/29/2008 | 9.01 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTAS511-MW07 (AccutestF55436-2) | 1/30/2008 | 9.80 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTAS511-MW08 (Accutest F55436-3) | 1/30/2008 | 9.48 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTRR-MW22 (Accutest F55407-10) | 1/29/2008 | 9.47 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 20.1 | <9.6 | <9.6 | <9.6 | 20.2 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 233 | 511 | <100 |
| USTAS527-MW16 (Accutest F55338-3) | 1/24/2008 | 8.34 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 1.8 J | <9.6 | <9.6 | <9.6 | 8.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <95 | <95 | <95 |
| | | GWQS (ug/L) | 280 | NS | 0.44 | NS | NS | 0.0479 | NS | 14 | NS | NS | NS | 21 | NS | NS | NS | 210 | 210 | 70 | 210 | 4200 | 42000 |
| | | GCL (ug/L) | 950 | NS | 440 | NS | NS | 31 | NS | 12500 | NS | NS | NS | 15500 | NS | NS | NS | 410 | 210 | 9500 | NS | NS | NS |

Indicate method detection limit for contaminants when analyzed but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

Table 3.2
Rapid Refueler
VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results
January 2008

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 602 | | | | | | | | 625 (8270C) | | | | | | | | | |
| Contaminant of Concern | | | Benzene | Chlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | Ethylbenzene | Methyl-tert-butyl ether | Toluene | Xylenes (total) | Benzoic acid | 2-Chlorophenol | 4-Chloro-3-methylphenol | 2,4-Dichlorophenol | 2,4-Dimethylphenol | 2,4-Dinitrophenol | 4,6-Dinitro-o-cresol | 2-Methylphenol | 3&4-Methylphenol | 2-Nitrophenol |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | |
| USTAS527-DW06 (Accutest F55436-4) | 1/30/2008 | 7.55 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW12 (Accutest F55407-5) | 1/29/2008 | 5.55 | 3.2 | <1.0 | <58 | <9.0 | <15 | 14.6 | 1.2 | <1.0 | 4 | <120 | <25 | <25 | <25 | <25 | <120 | <49 | <25 | <25 | <25 |
| USTRR-MW05 (Accutest F55338-6) | 1/25/2008 | 7.93 | 0.56 J | <1.0 | <5.0 | <1.0 | <1.0 | 2.5 | <1.0 | <1.0 | <3.0 | <25 | <4.9 | <4.9 | <4.9 | <4.9 | <25 | <9.8 | <4.9 | <4.9 | <4.9 |
| USTRR-MW10 (Accutest F55338-5) | 1/25/2008 | 7.89 | 18.4 | <1.0 | <30 | <1.0 | <5.0 | 83.4 | 2.3 | 1.1 | 23 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <24 | <9.7 | <4.9 | <4.9 | <4.9 |
| USTRR-MW08 (Accutest F55436-7) | 1/30/2008 | 4.39 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW07 (Accutest F55436-5) | 1/30/2008 | 7.15 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <24 | <9.7 | <4.9 | <4.9 | <4.9 |
| | | GWQS (ug/L) | 1 | 50 | 24 | 170 | 1.4 | 550 | 200 | 1000 | 530 | 28000 | NS | NS | NS | 140 | NS | NS | NS | NS | NS |
| | | GCL (ug/L) | 5000 | NS | 72500 | 61500 | 39500 | 29000 | 200000 | 257500 | 87500 | 1450000 | NS | NS | NS | 140000 | NS | NS | NS | NS | NS |

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | |
| Contaminant of Concern | | | Chrysene | Bis(2-chloroethoxy)methan | Bis(2-chloroethyl)ether | Bis(2-chloroisopropyl)ether | 4-Chlorophenyl phenyl ethe | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 3,3'-Dichlorobenzidine | Dibenzo(a,h)anthracene | Dibenzofuran | Di-n-butyl phthalate | Di-n-octyl phthalate | Diethyl phthalate | Dimethyl phthalate | Bis(2-ethylhexyl)phthalate | Fluoranthene |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | |
| USTAS527-DW06 (Accutest F55436-4) | 1/30/2008 | 7.55 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <43 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW12 (Accutest F55407-5) | 1/29/2008 | 5.55 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <49 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 |
| USTRR-MW05 (Accutest F55338-6) | 1/25/2008 | 7.93 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.8 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 |
| USTRR-MW10 (Accutest F55338-5) | 1/25/2008 | 7.89 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <4.9 | 2.3 J | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 |
| USTRR-MW08 (Accutest F55436-7) | 1/30/2008 | 4.39 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW07 (Accutest F55436-5) | 1/30/2008 | 7.15 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 |
| | | GWQS (ug/L) | 4.79 | NS | 0.031 | NS | NS | 24 | 170 | 1.4 | NS | NS | NS | 0.0047 | 28 | NS | NS | NS | NS | 2.5 | 280 |
| | | GCL (ug/L) | 0.8 | NS | 31 | NS | NS | 24000 | 61500 | 39500 | NS | NS | NS | 0.25 | 28000 | NS | NS | NS | NS | 2500 | 280 |

Indicate method detection limit for contaminants when analyzed but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Concentrations in bold
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

**Table 3.2**
**Rapid Refueler**
**VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results**
**January 2008**

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | | MADEP VPH | | |
| Contaminant of Concern | | | 4-Nitrophenol | Pentachlorophenol | Phenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | 4-Bromophenyl phenyl ether | Butyl benzyl phthalate | Benzyl alcohol | 2-Chloronaphthalene | 4-Chloroaniline | Carbazole | C5- C8 Aliphatics (Unadj) | C9- C12 Aliphatics (Unadj) | C9- C10 Aromatics (Unadj) |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | | |
| USTAS527-DW06 (Accutest F55436-4) | 1/30/2008 | 7.55 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTRR-MW12 (Accutest F55407-5) | 1/29/2008 | 5.55 | <120 | <120 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <1500 | 6020 | 3860 |
| USTRR-MW05 (Accutest F55338-6) | 1/25/2008 | 7.93 | <25 | <25 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <75 | 477 | 320 |
| USTRR-MW10 (Accutest F55338-5) | 1/25/2008 | 7.89 | <24 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <150 | 1160 | 689 |
| USTRR-MW06 (Accutest F55436-7) | 1/30/2008 | 4.39 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTRR-MW07 (Accutest F55436-5) | 1/30/2008 | 7.15 | <24 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <75 | <55 | 12.8 J |
| | | GWQS (ug/L) | NS | 0.29 | 300 | NS | NS | 80 | 210 | 2100 | 0.0479 | 0.00479 | 0.0479 | 210 | 0.479 | NS | 100 | NS | NS | NS | NS | 420 | NS | NS |
| | | GCL (ug/L) | NS | 290 | 300000 | NS | NS | 2120 | 1965 | 2100 | 22 | 1.5 | 0.6 | 210 | 0.47 | NS | NS | NS | NS | NS | NS | NS | NS | NS |

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP-EPH-98-1 | | |
| Contaminant of Concern | | | Fluorene | Hexachlorobenzene | Hexachlorobutadiene | Hexachlorocyclopentadiene | Hexachloroethane | Indeno(1,2,3-cd)pyrene | Isophorone | 2-Methylnaphthalene | 2-Nitroaniline | 3-Nitroaniline | 4-Nitroaniline | Naphthalene | Nitrobenzene | N-Nitroso-di-n-propylamine | N-Nitrosodiphenylamine | Phenanthrene | Pyrene | 1,2,4-Trichlorobenzene | C11-C22 Aromatics (Unadj) | C9-C18 Aliphatics | C19-C36 Aliphatics |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | |
| USTAS527-DW06 (Accutest F55436-4) | 1/30/2008 | 7.55 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTRR-MW12 (Accutest F55407-5) | 1/29/2008 | 5.55 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <25 | <49 | <49 | <49 | 107 | <25 | <25 | <25 | <25 | <25 | <25 | 3100 | 12300 | <100 |
| USTRR-MW05 (Accutest F55338-6) | 1/25/2008 | 7.93 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | 7.3 | <9.8 | <9.8 | <9.8 | 30.6 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | 173 | 205 | <95 |
| USTRR-MW10 (Accutest F55338-5) | 1/25/2008 | 7.89 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | 167 | <9.7 | <9.7 | <9.7 | 346 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | 822 | 132 | <95 |
| USTRR-MW06 (Accutest F55436-7) | 1/30/2008 | 4.39 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTRR-MW07 (Accutest F55436-5) | 1/30/2008 | 7.15 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <9.7 | <9.7 | 2.1 J | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <100 | <100 | <100 |
| | | GWQS (ug/L) | 280 | NS | 0.44 | NS | NS | 0.0479 | NS | 14 | NS | NS | NS | 21 | NS | NS | NS | 210 | 210 | 70 | 210 | 4200 | 42000 |
| | | GCL (ug/L) | 950 | NS | 440 | NS | NS | 31 | NS | 12500 | NS | NS | NS | 15500 | NS | NS | NS | 410 | 210 | 9500 | NS | NS | NS |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

**Table 3.2**
**Rapid Refueler**
**VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results**
**January 2008**

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 602 | | | | | | | | 625 (8270C) | | | | | | | | | | |
| Contaminant of Concern | | | Benzene | Chlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | Ethylbenzene | Methyl-tert-butyl ether | Toluene | Xylenes (total) | Benzoic acid | 2-Chlorophenol | 4-Chloro-3-methylphenol | 2,4-Dichlorophenol | 2,4-Dimethylphenol | 2,4-Dinitrophenol | 4,6-Dinitro-o-cresol | 2-Methylphenol | 3&4-Methylphenol | 2-Nitrophenol |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | |
| USTRR-MW11 (Accutest F55338-7) | 1/25/2008 | 6.51 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.94 J | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW14 (Accutest F55338-8) | 1/25/2008 | 6.43 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | 0.76 J | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW15 (AccutestF55338-9) | 1/25/2008 | 6.58 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW21 (Accutest F55227-3) | 1/21/2008 | 5.29 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW09 (Accutest F55436-6) | 1/30/2008 | 9.66 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.6 | <4.8 | <4.8 | <4.8 |
| USTRR-MW23 (AccutestF55227-2) | 1/20/2008 | 8.38 | <1.0 | <1.0 | <1.5 | <4.0 | <1.0 | 3.0 | <1.0 | <1.0 | 1.6 J | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.5 | <4.8 | <4.8 | <4.8 |
| | | GWQS (ug/L) | 1 | 50 | 24 | 170 | 1.4 | 550 | 200 | 1000 | 530 | 28000 | NS | NS | NS | 140 | NS | NS | NS | NS | NS |
| | | GCL (ug/L) | 5000 | NS | 72500 | 61500 | 39500 | 29000 | 200000 | 257500 | 87500 | 1450000 | NS | NS | NS | 140000 | NS | NS | NS | NS | NS |

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | |
| Contaminant of Concern | | | Chrysene | Bis(2-chloroethoxy)methane | Bis(2-chloroethyl)ether | Bis(2-chloroisopropyl)ether | 4-Chlorophenyl phenyl ether | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 3,3'-Dichlorobenzidine | Dibenzo(a,h)anthracene | Dibenzofuran | Di-n-butyl phthalate | Di-n-octyl phthalate | Diethyl phthalate | Dimethyl phthalate | Bis(2-ethylhexyl)phthalate | Fluoranthene |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | |
| USTRR-MW11 (Accutest F55338-7) | 1/25/2008 | 6.51 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW14 (Accutest F55338-8) | 1/25/2008 | 6.43 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW15 (AccutestF55338-9) | 1/25/2008 | 6.58 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW21 (Accutest F55227-3) | 1/21/2008 | 5.29 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW09 (Accutest F55436-6) | 1/30/2008 | 9.66 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTRR-MW23 (AccutestF55227-2) | 1/20/2008 | 8.38 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| | | GWQS (ug/L) | 4.79 | NS | 0.031 | NS | NS | 24 | 170 | 1.4 | NS | NS | NS | 0.0047 | 28 | NS | NS | NS | NS | 2.5 | 280 |
| | | GCL (ug/L) | 0.8 | NS | 31 | NS | NS | 24000 | 61500 | 39500 | NS | NS | NS | 0.25 | 28000 | NS | NS | NS | NS | 2500 | 280 |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

Table 3.2
Rapid Refueler
VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results
January 2008

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | MADEP VPH | | |
| Contaminant of Concern | | | 4-Nitrophenol | Pentachlorophenol | Phenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | 4-Bromophenyl phenyl ether | Butyl benzyl phthalate | Benzyl alcohol | 2-Chloronaphthalene | 4-Chloroaniline | Carbazole | C5- C8 Aliphatics (Unadj) | C9- C12 Aliphatics (Unadj) | C9- C10 Aromatics (Unadj) |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | |
| USTRR-MW11 (Accutest F55338-7) | 1/25/2008 | 6.51 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | 16.8 |
| USTRR-MW14 (Accutest F55338-8) | 1/25/2008 | 6.43 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTRR-MW15 (AccutestF55338-9) | 1/25/2008 | 6.58 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTRR-MW21 (Accutest F55227-3) | 1/21/2008 | 5.29 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTRR-MW09 (Accutest F55436-6) | 1/30/2008 | 9.68 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | 74.8 | 41.0 |
| USTRR-MW23 (AccutestF55227-2) | 1/20/2008 | 8.38 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <150 | 446 | 360 |
| | | GWQS (ug/L) | NS | 0.29 | 300 | NS | NS | 80 | 210 | 2100 | 0.0479 | 0.00479 | 0.0479 | 210 | 0.479 | NS | 100 | NS | NS | NS | NS | 420 | NS | NS |
| | | GCL (ug/L) | NS | 290 | 300000 | NS | NS | 2120 | 1985 | 2100 | 22 | 1.5 | 0.6 | 210 | 0.47 | NS | NS | NS | NS | NS | NS | NS | NS | NS |

| Date: 3/3/2008 | | | Project Number and Name: 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP-EPH-98-1 | | |
| Contaminant of Concern | | | Fluorene | Hexachlorobenzene | Hexachlorobutadiene | Hexachlorocyclopentadiene | Hexachloroethane | Indeno(1,2,3-cd)pyrene | Isophorone | 2-Methylnaphthalene | 2-Nitroaniline | 3-Nitroaniline | 4-Nitroaniline | Naphthalene | Nitrobenzene | N-Nitroso-di-n-propylamine | N-Nitrosodiphenylamine | Phenanthrene | Pyrene | 1,2,4-Trichlorobenzene | C11-C22 Aromatics (Unadj) | C9-C18 Aliphatics | C19-C36 Aliphatics |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | |
| USTRR-MW11 (Accutest F55338-7) | 1/25/2008 | 6.51 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 1.4 J | <9.5 | <9.5 | <9.5 | 4.7 J | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <95 | <95 | <95 |
| USTRR-MW14 (Accutest F55338-8) | 1/25/2008 | 6.43 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 1.1 J | <9.6 | <9.6 | <9.6 | 3.8 J | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <95 | <95 | <95 |
| USTRR-MW15 (AccutestF55338-9) | 1/25/2008 | 6.58 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <95 | <95 | <95 |
| USTRR-MW21 (Accutest F55227-3) | 1/21/2008 | 5.29 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <96 | <96 | <96 |
| USTRR-MW09 (Accutest F55436-6) | 1/30/2008 | 9.68 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 1.4 J | <9.6 | <9.6 | <9.6 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <100 | <100 | <100 |
| USTRR-MW23 (AccutestF55227-2) | 1/20/2008 | 8.38 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 11.8 | <9.5 | <9.5 | <9.5 | 31.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | 1030 | 357 | <95 |
| | | GWQS (ug/L) | 280 | NS | 0.44 | NS | NS | 0.0479 | NS | 14 | NS | NS | NS | 21 | NS | NS | NS | 210 | 210 | 70 | 210 | 4200 | 42000 |
| | | GCL (ug/L) | 950 | NS | 440 | NS | NS | 31 | NS | 12500 | NS | NS | NS | 15500 | NS | NS | NS | 410 | 210 | 9500 | NS | NS | NS |

Indicate method detection limit for contaminants when analyzed but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

**Table 3.2**
**Rapid Refueler**
**VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results**
**January 2008**

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 602 | | | | | | | | | 625 (8270C) | | | | | | | | | | |
| Contaminant of Concern | | | Benzene | Chlorobenzene | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | Ethylbenzene | Methyl-tert-butyl ether | Toluene | Xylenes (total) | Benzoic acid | 2-Chlorophenol | 4-Chloro-3-methylphenol | 2,4-Dichlorophenol | 2,4-Dimethylphenol | 2,4-Dinitrophenol | 4,6-Dinitro-o-cresol | 2-Methylphenol | 3&4-Methylphenol | 2-Nitrophenol |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | |
| USTRR-MW17 (AccutestF55407-1) | 1/29/2008 | 4.57 | 6.3 | <1.0 | <28 | <6.0 | <4.0 | 37.6 | 5.8 | <1.0 | 2.4 J | <120 | <24 | <24 | <24 | <24 | <120 | <48 | <24 | <24 | <24 |
| UST527-MW10 (AccutestF55227-4) | 1/21/2008 | 10.07 | <1.0 | <1.0 | <110 | <21 | <1.0 | 15.7 | <1.0 | <1.0 | 13.9 | <240 | <48 | <48 | <48 | <48 | <240 | <96 | <48 | <48 | <48 |
| USTRR-MW06G (Accutest F55227-1) | 1/20/2008 | 7.49 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <24 | <9.5 | <4.8 | <4.8 | <4.8 |
| USTAS527-MW03 (Accutest F55338-1) | 1/24/2008 | 10.72 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 | <3.0 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <24 | <9.7 | <4.9 | <4.9 | <4.9 |
| USTAS527-DW02 (Accutest F55338-2) | 1/24/2008 | 5.13 | 8.4 | <1.0 | <48 | <1.0 | <1.0 | 93.8 | <1.0 | 1.1 | 59.2 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <24 | <9.7 | <4.9 | <4.9 | <4.9 |
| | | GWQS (ug/L) | 1 | 50 | 24 | 170 | 1.4 | 550 | 200 | 1000 | 530 | 28000 | NS | NS | NS | 140 | NS | NS | NS | NS | NS |
| | | GCL (ug/L) | 5000 | NS | 72500 | 61500 | 39500 | 29000 | 200000 | 257500 | 87500 | 1450000 | NS | NS | NS | 140000 | NS | NS | NS | NS | NS |

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | |
| Contaminant of Concern | | | Chrysene | Bis(2-chloroethoxy)methane | Bis(2-chloroethyl)ether | Bis(2-chloroisopropyl)ether | 4-Chlorophenyl phenyl ether | 1,2-Dichlorobenzene | 1,3-Dichlorobenzene | 1,4-Dichlorobenzene | 2,4-Dinitrotoluene | 2,6-Dinitrotoluene | 3,3'-Dichlorobenzidine | Dibenzo(a,h)anthracene | Dibenzofuran | Di-n-butyl phthalate | Di-n-octyl phthalate | Diethyl phthalate | Dimethyl phthalate | Bis(2-ethylhexyl)phthalate | Fluoranthene |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | |
| USTRR-MW17 (AccutestF55407-1) | 1/29/2008 | 4.57 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | 576 | <24 |
| UST527-MW10 (AccutestF55227-4) | 1/21/2008 | 10.07 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <96 | <48 | <48 | <48 | <48 | <48 | <48 | 447 | <48 |
| USTRR-MW06G (Accutest F55227-1) | 1/20/2008 | 7.49 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 |
| USTAS527-MW03 (Accutest F55338-1) | 1/24/2008 | 10.72 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 |
| USTAS527-DW02 (Accutest F55338-2) | 1/24/2008 | 5.13 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 |
| | | GWQS (ug/L) | 4.79 | NS | 0.031 | NS | NS | 24 | 170 | 1.4 | NS | NS | NS | 0.0047 | 28 | NS | NS | NS | NS | 2.5 | 280 |
| | | GCL (ug/L) | 0.8 | NS | 31 | NS | NS | 24000 | 61500 | 39500 | NS | NS | NS | 0.25 | 28000 | NS | NS | NS | NS | 2500 | 280 |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

Table 3.2
Rapid Refueler
VOC, SVOC, MADEP EPH/VPH Groundwater Sample Analytical Results
January 2008

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | | MADEP VPH | | |
| Contaminant of Concern | | | 4-Nitrophenol | Pentachlorophenol | Phenol | 2,4,5-Trichlorophenol | 2,4,6-Trichlorophenol | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(a)pyrene | **Benzo(b)fluoranthene** | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | 4-Bromophenyl phenyl ether | **Butyl benzyl phthalate** | Benzyl alcohol | 2-Chloronaphthalene | 4-Chloroaniline | Carbazole | C5- C8 Aliphatics (Unadj) | C9- C12 Aliphatics (Unadj) | C9- C10 Aromatics (Unadj) |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | | |
| USTRR-MW17 (AccutestF55407-1) | 1/29/2008 | 4.57 | <120 | <120 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | <750 | 1950 | 1200 |
| UST527-MW10 (AccutestF55227-4) | 1/21/2008 | 10.07 | <240 | <240 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | <7500 | 27500 | 16500 |
| USTRR-MW06G (Accutest F55227-1) | 1/20/2008 | 7.49 | <24 | <24 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <75 | <55 | <20 |
| USTAS527-MW03 (Accutest F55338-1) | 1/24/2008 | 10.72 | <24 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <75 | 120 | 72.4 |
| USTAS527-DW02 (Accutest F55338-2) | 1/24/2008 | 5.13 | <24 | <24 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <750 | 2100 | 1590 |
| | | GWQS (ug/L) | NS | 0.29 | 300 | NS | NS | 80 | 210 | 2100 | 0.0479 | 0.00479 | 0.0479 | 210 | 0.479 | NS | 100 | NS | NS | NS | NS | 420 | NS | NS |
| | | GCL (ug/L) | NS | 290 | 300000 | NS | NS | 2120 | 1965 | 2100 | 22 | 1.5 | 0.6 | 210 | 0.47 | NS | NS | NS | NS | NS | NS | NS | NS | NS |

| Date: | 3/3/2008 | | Project Number and Name: | 126006 MCAS-Rapid Refueler | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Analytical Method: | | | 625 (8270C) | | | | | | | | | | | | | | | | | | | MADEP-EPH-98-1 | | |
| Contaminant of Concern | | | Fluorene | Hexachlorobenzene | **Hexachlorobutadiene** | **Hexachlorocyclopentadiene** | Hexachloroethane | Indeno(1,2,3-cd)pyrene | Isophorone | 2-Methylnaphthalene | 2-Nitroaniline | 3-Nitroaniline | 4-Nitroaniline | Naphthalene | Nitrobenzene | **N-Nitroso-di-n-propylamine** | **N-Nitrosodiphenylamine** | Phenanthrene | Pyrene | **1,2,4-Trichlorobenzene** | C11-C22 Aromatics (Unadj) | C9-C18 Aliphatics | C19-C36 Aliphatics |
| Sample ID | Date Collected | Depth to Water (ft) | | | | | | | | | | | | | | | | | | | | | | |
| USTRR-MW17 (AccutestF55407-1) | 1/29/2008 | 4.57 | <24 | <24 | <24 | <24 | <24 | <24 | <24 | 82.3 | <48 | <48 | <48 | 136 | <24 | <24 | <24 | <24 | <24 | <24 | 2380 | 8710 | 285 |
| UST527-MW10 (AccutestF55227-4) | 1/21/2008 | 10.07 | <48 | <48 | <48 | <48 | <48 | <48 | <48 | 248 | <96 | <96 | <96 | 175 | <48 | <48 | <48 | <48 | <48 | <48 | 2320 | 14900 | 95.9 |
| USTRR-MW06G (Accutest F55227-1) | 1/20/2008 | 7.49 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <9.5 | <9.5 | <9.5 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <4.8 | <95 | 119 | <95 |
| USTAS527-MW03 (Accutest F55338-1) | 1/24/2008 | 10.72 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <9.7 | <9.7 | <9.7 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <95 | <95 | <95 |
| USTAS527-DW02 (Accutest F55338-2) | 1/24/2008 | 5.13 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | 25.8 | <9.7 | <9.7 | <9.7 | 131 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | <4.9 | 603 | 113 | <95 |
| | | GWQS (ug/L) | 280 | NS | 0.44 | NS | NS | 0.0479 | NS | 14 | NS | NS | NS | 21 | NS | NS | NS | 210 | 210 | 70 | 210 | 4200 | 42000 |
| | | GCL (ug/L) | 950 | NS | 440 | NS | NS | 31 | NS | 12500 | NS | NS | NS | 15500 | NS | NS | NS | 410 | 210 | 9500 | NS | NS | NS |

Indicate method detection limit for contaminants when analyzed
but not detected (i.e., <1.0)
any contaminant detected above the method detection limit
Detectable concentration exceeds GWQS
GWQS = Groundwater Quality Standard
GCL = Groundwater Contamination Level
Results must be reported in ug/L
ug/L = micrograms per liter
NA = not applicable
NS = no standard
J = estimated value between RL and MDL
E = estimated value above calibration

**FIGURES**

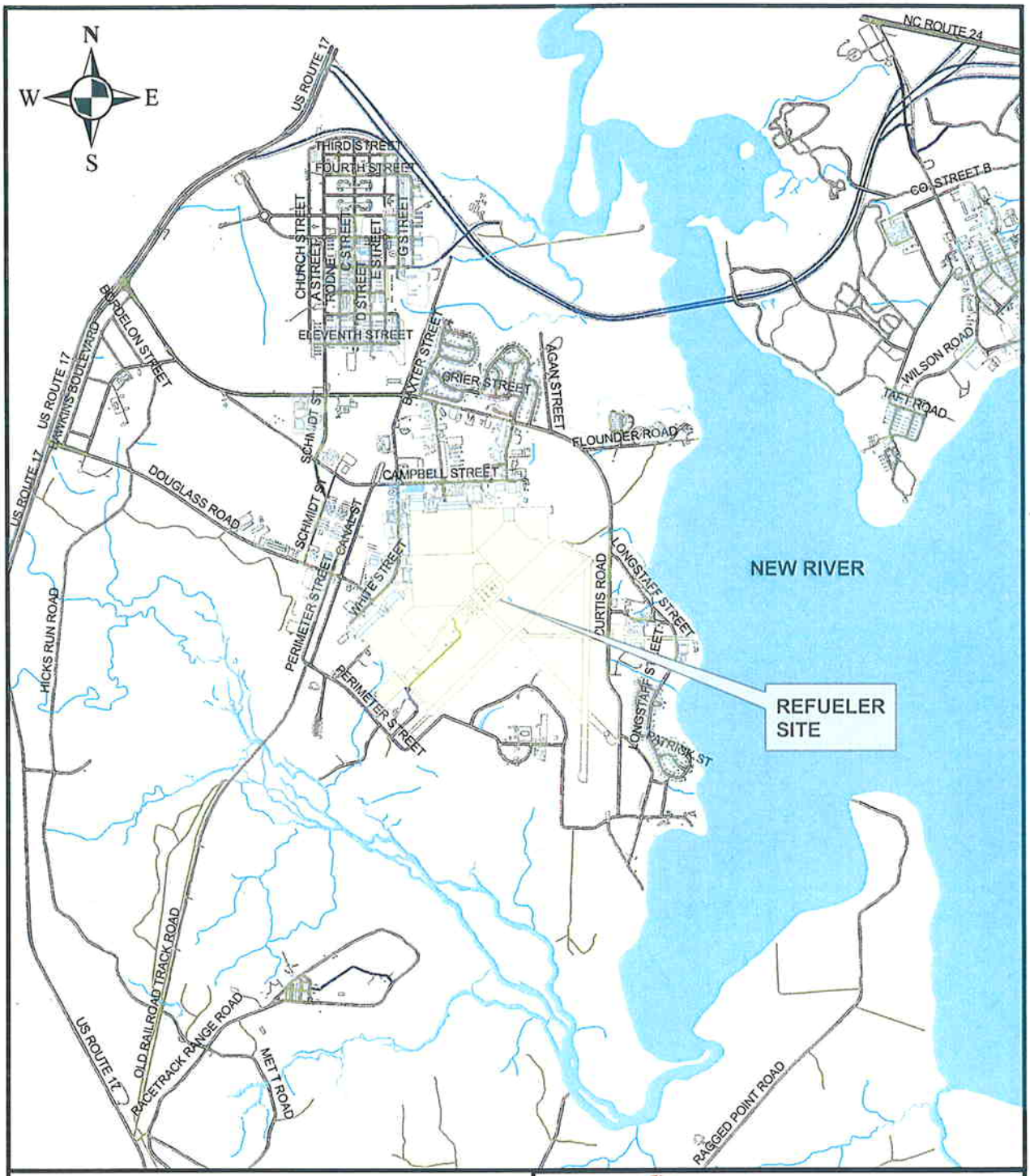
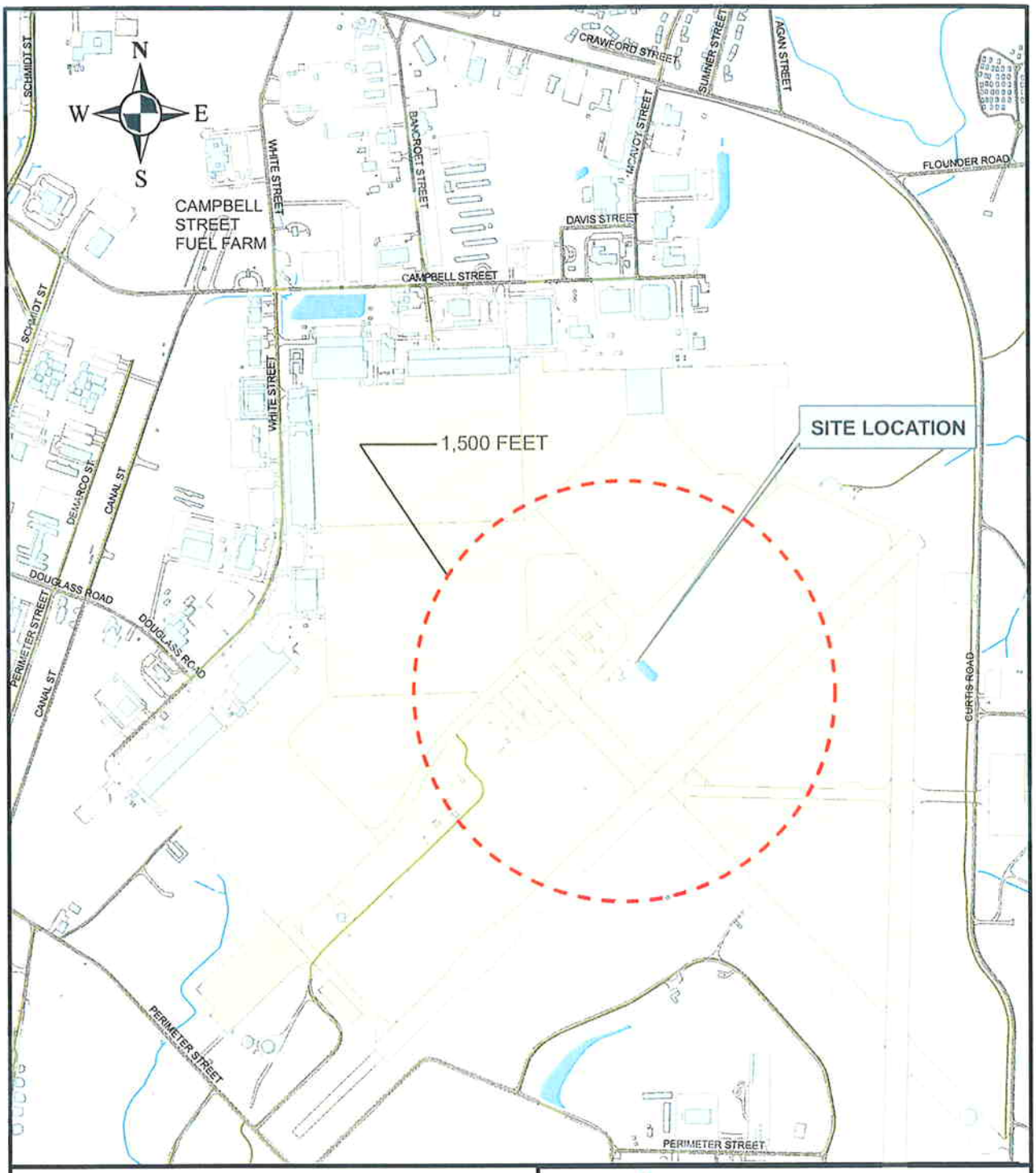


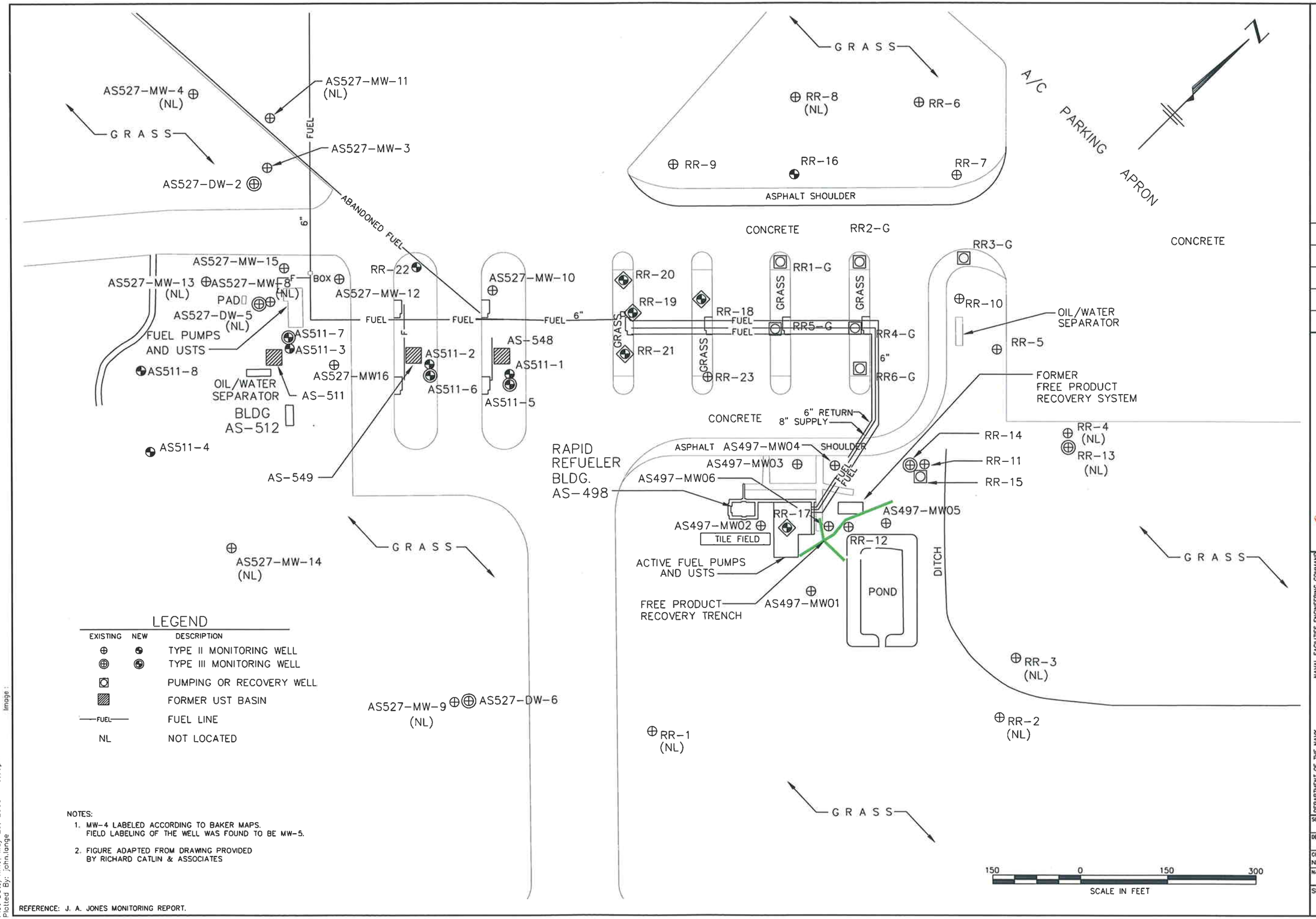

**FIGURE 1.1**
**SITE VICINITY MAP**
RAPID REFUELER A-B TANKS
ANNUAL MONITORING REPORT 2007-2008
MARINE CORPS AIR STATION
CAMP LEJEUNE, NORTH CAROLINA




0 387.5 775 1,550 2,325 3,100 Feet

Shaw® Shaw Environmental, Inc.

**FIGURE 1.2**
**SITE LOCATION MAP**
RAPID REFUELER A-B TANKS
ANNUAL MONITORING REPORT 2007-2008
MARINE CORPS AIR STATION
CAMP LEJEUNE, NORTH CAROLINA




## LEGEND

| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| ⊕ | ⊕ | TYPE II MONITORING WELL |
| ⊕ | ⊕ | TYPE III MONITORING WELL |
| ▢ | | PUMPING OR RECOVERY WELL |
| ▨ | | FORMER UST BASIN |
| —FUEL— | | FUEL LINE |
| NL | | NOT LOCATED |

NOTES:

1. MW-4 LABELED ACCORDING TO BAKER MAPS. FIELD LABELING OF THE WELL WAS FOUND TO BE MW-5.
2. FIGURE ADAPTED FROM DRAWING PROVIDED BY RICHARD CATLIN & ASSOCIATES

REFERENCE: J. A. JONES MONITORING REPORT.

REVISIONS

| REV | DATE | BY | CHK'D | APP'VD | DESCRIPTION/ISSUE |
|---|---|---|---|---|---|

Shaw Environmental, Inc.

| DESIGNED BY | CHECKED BY | APPROVED BY |
|---|---|---|
| RBK | RBK | JEL |
| DRAWN BY | PROJECT NO. 119909 | |
| JEL | | |

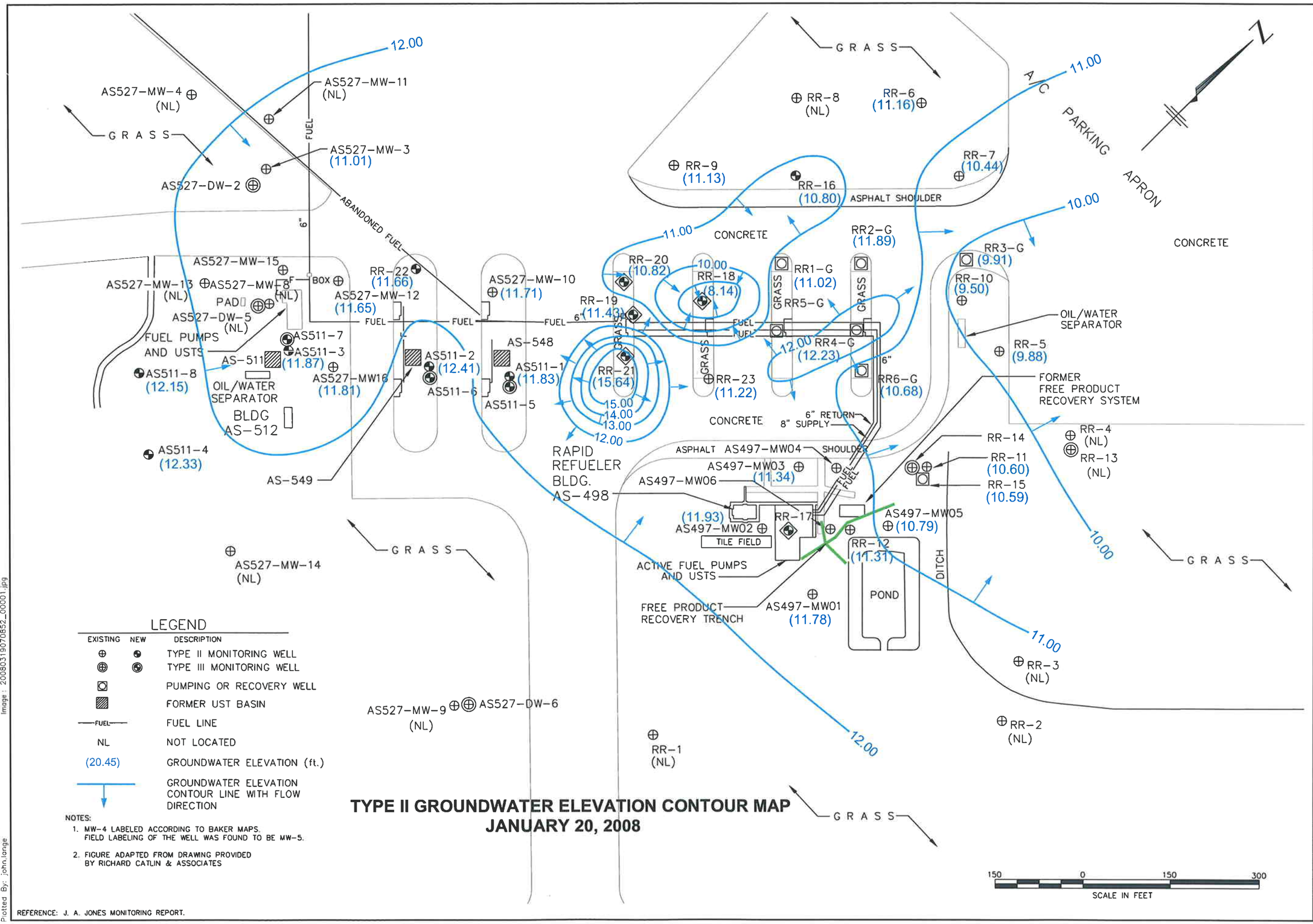
DEPARTMENT OF THE NAVY
NAVAL STATION
NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NORFOLK, VIRGINIA

ANNUAL MONITORING REPORT 2007-2008
RAPID REFUELER
NEW RIVER, NORTH CAROLINA

SITE MAP

SCALE: AS SHOWN
SIZE: D
DELIVERY ORDER NO. 061
CONSTR. CONTRACT NO. N62470-02-D-3260
NAVFAC DRAWING NO.
SHEET I.D. 1.3

File: O:\LEJEUNE-6-05\RAC_IV\TO_46_RAPID FEFUELER\rapid_ref-jan-08\RAPID-REF-JAN-08-SITE-1-3.dwg
Plot Date/Time: May 29, 2008 - 3:03pm
Plotted By: john.lange
Xref :
Image :




## LEGEND

| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| ⊕ | ⊕ | TYPE II MONITORING WELL |
| ⊕ | ⊕ | TYPE III MONITORING WELL |
| ▣ | ▣ | PUMPING OR RECOVERY WELL |
| ▨ | | FORMER UST BASIN |
| —FUEL— | | FUEL LINE |
| NL | | NOT LOCATED |
| (20.45) | | GROUNDWATER ELEVATION (ft.) |
| | | GROUNDWATER ELEVATION CONTOUR LINE WITH FLOW DIRECTION |

NOTES:

1. MW-4 LABELED ACCORDING TO BAKER MAPS. FIELD LABELING OF THE WELL WAS FOUND TO BE MW-5.
2. FIGURE ADAPTED FROM DRAWING PROVIDED BY RICHARD CATLIN & ASSOCIATES

# TYPE II GROUNDWATER ELEVATION CONTOUR MAP
# JANUARY 20, 2008

REFERENCE: J. A. JONES MONITORING REPORT.

REVISIONS

| REV | DATE | BY | CHK'D | APPR'VD | DESCRIPTION/ISSUE |
|---|---|---|---|---|---|

Shaw Environmental, Inc.

| DESIGNED BY | CHECKED BY | APPROVED BY |
|---|---|---|
| RBK | RBK | |
| DRAWN BY | PROJECT NO. 119909 | |
| JEL | | |

DEPARTMENT OF THE NAVY
NAVAL STATION
NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NORFOLK, VIRGINIA

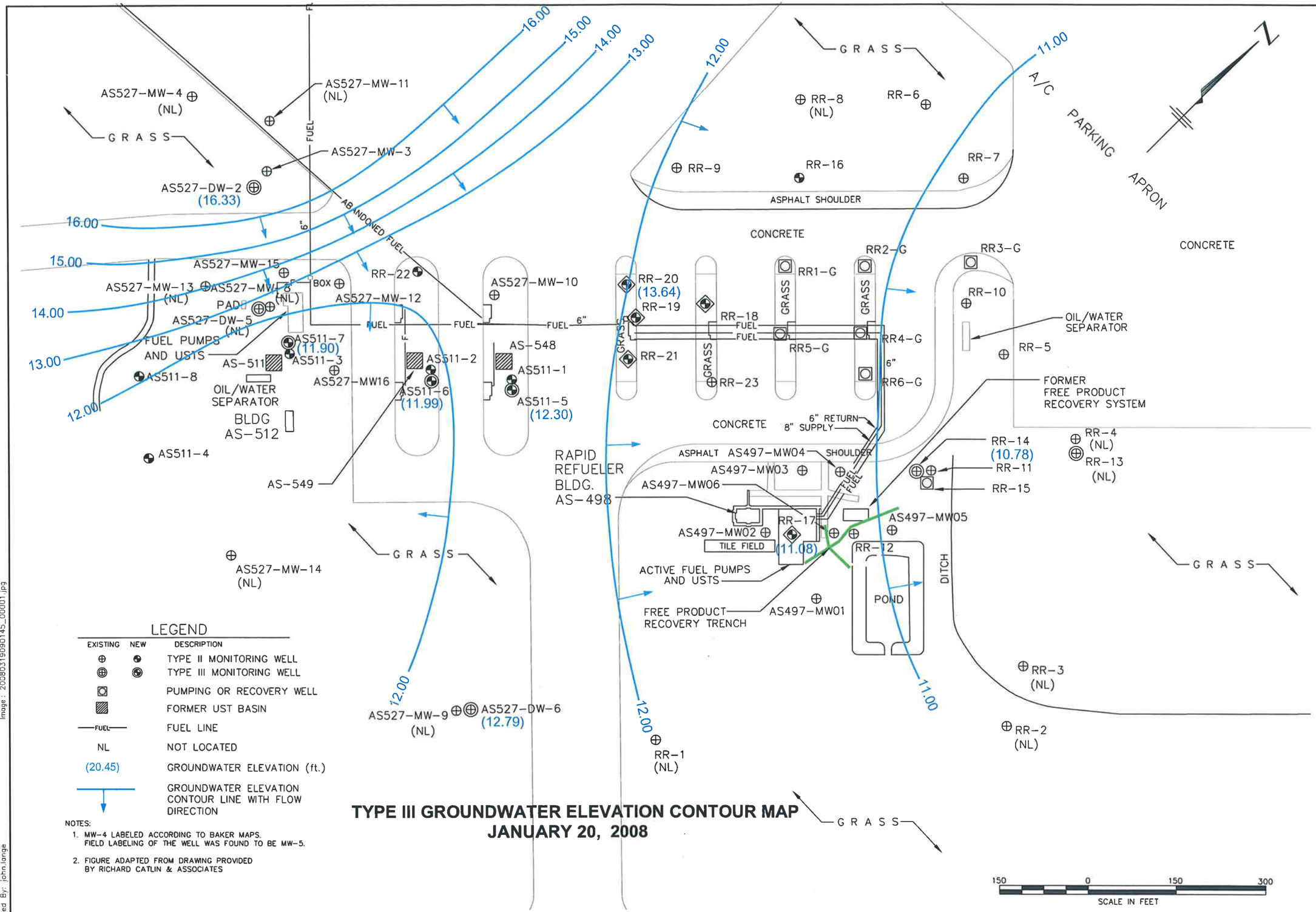
ANNUAL MONITORING REPORT 2007-2008
RAPID REFUELER
NEW RIVER, NORTH CAROLINA

TYPE II WELLS GROUNDWATER ELEVATION CONTOUR MAP

| | |
|---|---|
| SCALE: AS SHOWN | SIZE: D |
| DELIVERY ORDER NO. 061 | |
| CONSTR. CONTRACT NO. N62470-02-D-3260 | |
| NAVFAC DRAWING NO. | |
| SHEET I.D. 3.1 | |

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Plot Date/Time: May 29, 2008 - 3:02pm
Plotted By: john.lange
Xref :
Image : 20080319070852_00001.jpg

# TYPE III GROUNDWATER ELEVATION CONTOUR MAP
# JANUARY 20, 2008




## LEGEND

| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| ⊕ | ⊕ | TYPE II MONITORING WELL |
| ⊕ | ⊕ | TYPE III MONITORING WELL |
| ▣ | ▣ | PUMPING OR RECOVERY WELL |
| ▨ | | FORMER UST BASIN |
| —FUEL— | | FUEL LINE |
| NL | | NOT LOCATED |
| (20.45) | | GROUNDWATER ELEVATION (ft.) |
| | | GROUNDWATER ELEVATION CONTOUR LINE WITH FLOW DIRECTION |

NOTES:
1. MW-4 LABELED ACCORDING TO BAKER MAPS. FIELD LABELING OF THE WELL WAS FOUND TO BE MW-5.
2. FIGURE ADAPTED FROM DRAWING PROVIDED BY RICHARD CATLIN & ASSOCIATES

REFERENCE: J. A. JONES MONITORING REPORT.

REVISIONS

| REV | DATE | BY | CHK'D | APP'VD | DESCRIPTION/ISSUE |
|---|---|---|---|---|---|

PROJECT NO. 119909

| CHECKED BY | APPROVED BY |
|---|---|
| RBK | JEL |

| DESIGNED BY | DRAWN BY |
|---|---|
| RBK | JEL |

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NAVAL STATION
NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NORFOLK, VIRGINIA

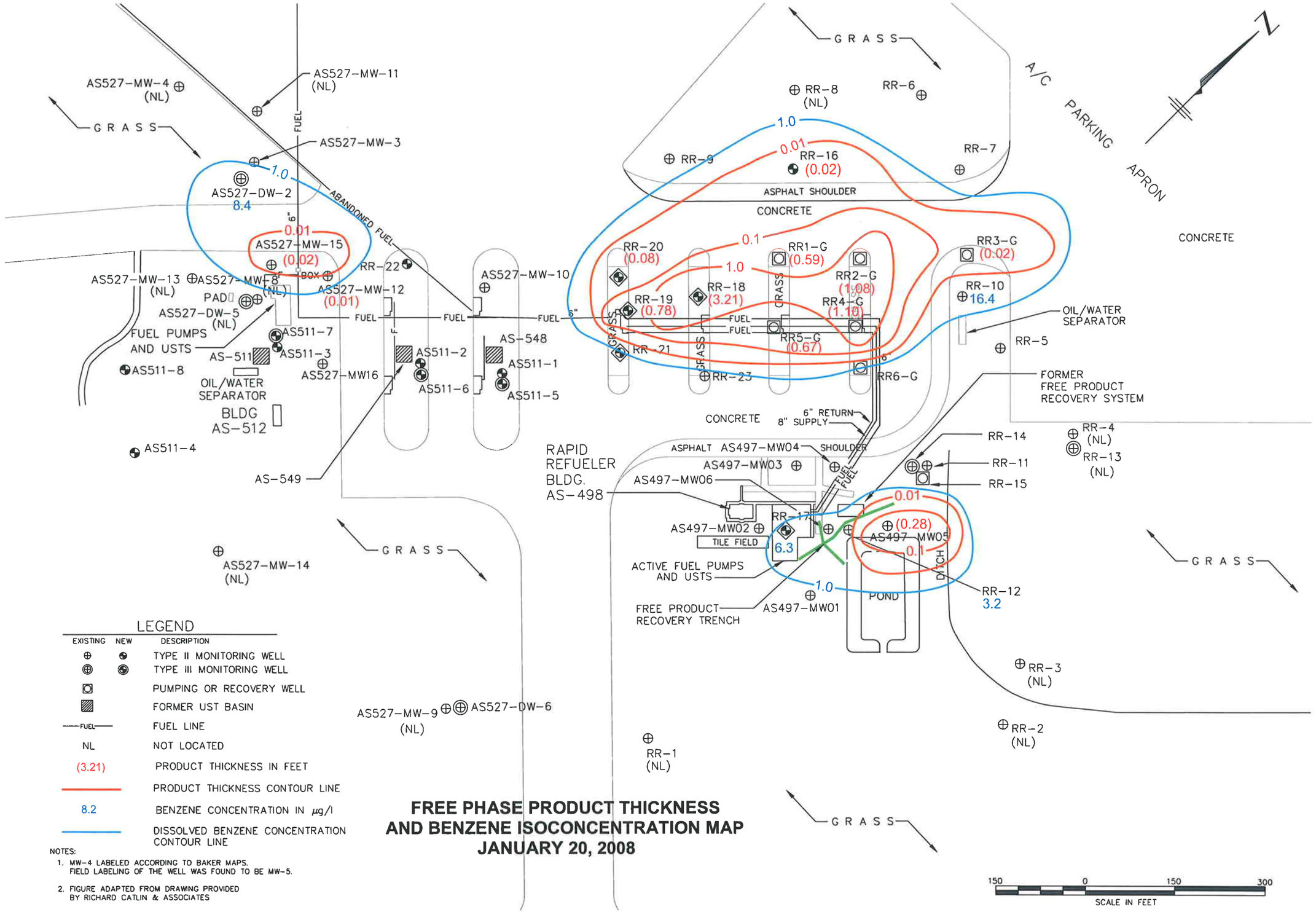
ANNUAL MONITORING REPORT 2007-2008
RAPID REFUELER
NEW RIVER, NORTH CAROLINA

TYPE III WELLS GROUNDWATER ELEVATION CONTOUR MAP

SCALE: AS SHOWN
SIZE: D
DELIVERY ORDER NO. 061
CONSTR. CONTRACT NO. N62470-02-D-3260
NAVFAC DRAWING NO.
SHEET I.D. 3.2

File: Q:\LEJEUNE-6-05\RAC_IV\TO_46_RAPID FEFUELER\rapid_ref-jan-08\RAPID-REF-JAN-08-JAN-DEEP-GW-3-2.dwg
Plot Date/Time: May 29, 2008 - 3:01pm
Plotted By: john.lange
Xref:
Image: 20080319090145_00001.jpg

# FREE PHASE PRODUCT THICKNESS AND BENZENE ISOCONCENTRATION MAP JANUARY 20, 2008




## LEGEND

| EXISTING | NEW | DESCRIPTION |
|---|---|---|
| ⊕ | ⊕ | TYPE II MONITORING WELL |
| ⊕ | ⊕ | TYPE III MONITORING WELL |
| ▣ | | PUMPING OR RECOVERY WELL |
| ▨ | | FORMER UST BASIN |
| FUEL | | FUEL LINE |
| NL | | NOT LOCATED |
| (3.21) | | PRODUCT THICKNESS IN FEET |
| | | PRODUCT THICKNESS CONTOUR LINE |
| 8.2 | | BENZENE CONCENTRATION IN µg/l |
| | | DISSOLVED BENZENE CONCENTRATION CONTOUR LINE |

NOTES:
1. MW-4 LABELED ACCORDING TO BAKER MAPS. FIELD LABELING OF THE WELL WAS FOUND TO BE MW-5.
2. FIGURE ADAPTED FROM DRAWING PROVIDED BY RICHARD CATLIN & ASSOCIATES

REFERENCE: J. A. JONES MONITORING REPORT.

REVISIONS

| REV | DATE | BY | CHK'D | APPR'VD | DESCRIPTION/ISSUE |
|---|---|---|---|---|---|

Shaw Environmental, Inc.

| DESIGNED BY | DRAWN BY | CHECKED BY | APPROVED BY |
|---|---|---|---|
| RBK | JEL | RBK | |

PROJECT NO. 119909

DEPARTMENT OF THE NAVY
NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

ANNUAL MONITORING REPORT 2007-2008
RAPID REFUELER
NEW RIVER, NORTH CAROLINA

FREE PHASE PRODUCT THICKNESS & BENZENE ISOCONCENTRATION MAP

| SCALE: | SIZE: |
|---|---|
| AS SHOWN | D |

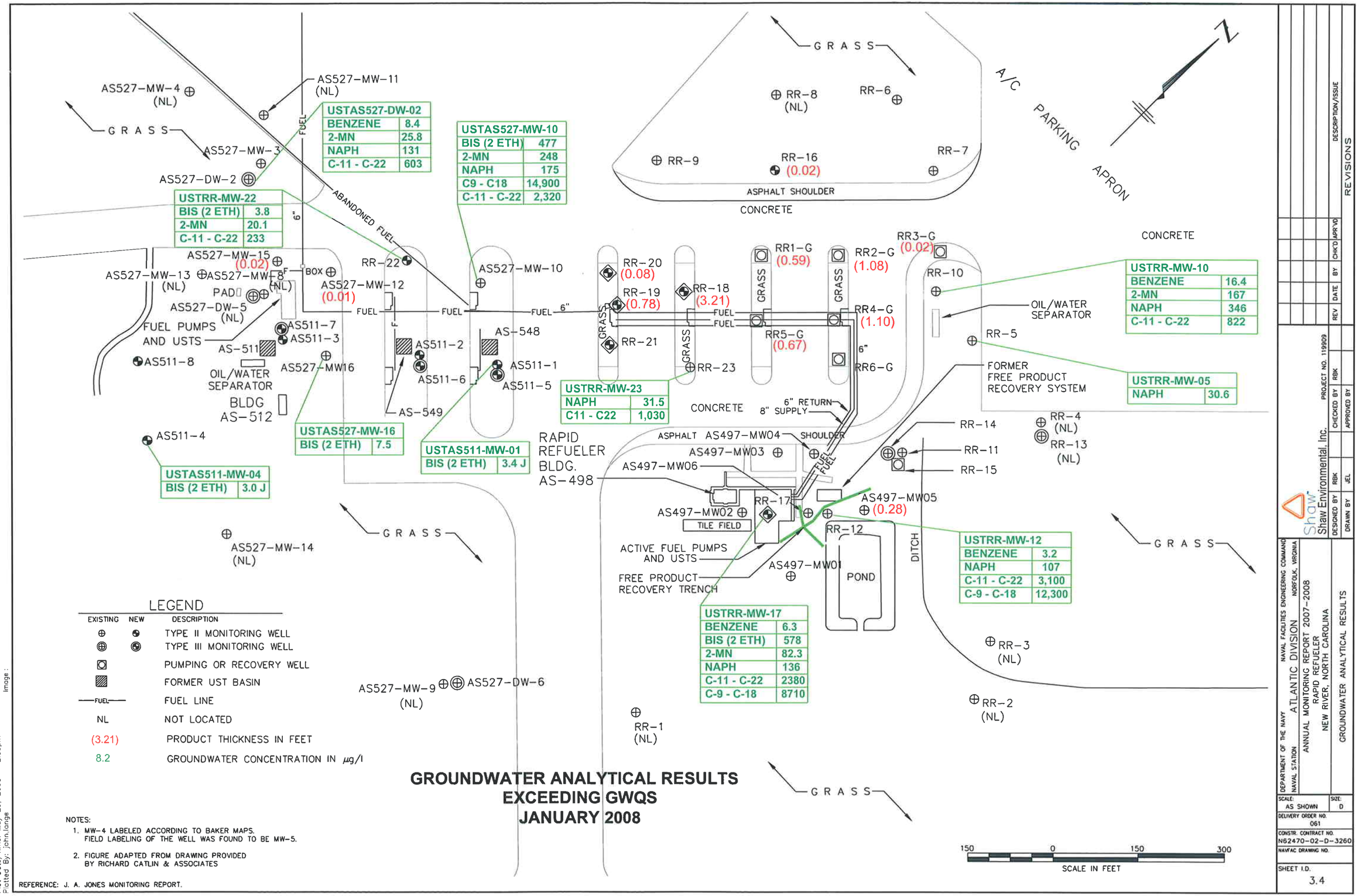
DELIVERY ORDER NO. 061

CONSTR. CONTRACT NO. N62470-02-D-3260

NAVFAC DRAWING NO.

SHEET I.D. 3.3

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Plot Date/Time: May 29, 2008 - 3:00pm
Plotted By: john.lange
Xref :
Image : 20080319110909_00001.jpg




File: Q:\LEJEUNE-6-05\RAC_IV\TO_46_RAPID FEFUELER\rapid_ref-jan-08\RAPID-REF-JAN-08--ANALY-3-4.dwg
Plot Date/Time: May 29, 2008 - 2:55pm
Plotted By: john.lange
Xref:
Image:

# APPENDIX A

# GROUNDWATER SAMPLE COLLECTION FIELD LOGS

# JANUARY 2008

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. MSTRR-MW02 |
| | | SAMPLE NO. |

| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 11/20/08 |
|---|---|---|
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Missing Could NOT Locate

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTRR-MW03 |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 11/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm$^c$) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Missing Could not locate

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

Shaw
Shaw Environmental & Infrastructure, Inc.

# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTRR-MW05 | |
| SAMPLE NO. USTRR-MW05 | |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/25/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1200 |
| PHONE: 910-451-2390 | WEATHER: SUNNY WINDY 40'S | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 19.39 | 19.30 | 19.29 | 19.25 | | | (°C) |
| Specific Conductivity | 0.293 | 0.330 | 0.331 | 0.330 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.59 | 4.60 | ~~1.17~~ | ~~0.86~~ 0.86 | | | (mg/L) |
| PH | 6.57 | 6.58 | 6.51 | 6.57 | | | (STD) |
| ORP | -193.6 | -204.5 | -213.7 | -214.8 | | | mV |
| Turbidity (Turb) | 37.6 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 173.52 | (In) (Minus) | Depth to Water | 95.16 | (In) | = | 78.36 | HT (in) |
| Depth to Bottom | 14.46 | (Ft) (Minus) | Depth to Water | 7.93 | (Ft) | = | 6.53 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 78.36 | 1 | 3.14 | 246 | .0043 | 1.1 | | 3.2 | 5 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW05 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW05 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW05 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW05 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTRR-MW06 |
| | | SAMPLE NO. USTRR-MW06 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/30/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1800 |
| PHONE: 910-451-2390 | WEATHER: Sunny 60's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | 16.41 | | | (°C) |
| Specific Conductivity | | | | 0.127 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | 0.31 | | | (mg/L) |
| PH | | | | 5.53 | | | (STD) |
| ORP | | | | -100.8 | | | mV |
| Turbidity (Turb) | | | | 639.8 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 156.86 | (In) (Minus) | Depth to Water | 52.68 | (In) | = | 104.28 | HT (in) |
| Depth to Bottom | 13.08 | (Ft) (Minus) | Depth to Water | 4.39 | (Ft) | = | 8.69 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 104.28 | 1 | 3.14 | 327 | .0043 | 1.4 | | 4.2 | 5 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW06 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW06 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW06 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW06 | 3 x 40ml | HCL |

COMMENTS: Water started out muddy and did not clear. Totaly. Took last Readings Before Sampling.

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTRR-MW07 | |
| SAMPLE NO. USTRR-MW07 | |
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin |
| PHONE: 910-451-2390 | WEATHER: Sunny 60's |
| LEL: | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer |

DATE 1/30/08
TIME 1630
No

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.15 | 18.01 | 17.93 | 17.93 | | | (°C) |
| Specific Conductivity | 0.121 | 0.126 | 0.120 | 0.120 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 5.17 | 4.29 | 3.96 | 3.71 | | | (mg/L) |
| PH | 5.63 | 5.57 | 5.55 | 5.55 | | | (STD) |
| ORP | 199.7 | 183.9 | 163.8 | 157.0 | | | mV |
| Turbidity (Turb) | 735.4 | 639.4 | 630.0 | 598.0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 176.40 | (In) (Minus) | Depth to Water | 85.80 | (In) | = | 90.60 | HT (in) |
| Depth to Bottom | 14.70 | (Ft) (Minus) | Depth to Water | 7.15 | (Ft) | = | 7.55 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 90.60 | 1 | 3.14 | 284 | .0043 | 1.2 | | 3.7 | 4 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW07 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW07 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW07 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW07 | 3 x 40ml | HCL |

COMMENTS: Purge water started muddy & Cleared During purging ~~Read~~ Readings NOT at first ~~Read~~ Due to mud. Allowed mud to clear before taking Readings

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTRR-MW09
SAMPLE NO. USTRR-MW09

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/30/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1730 |
| PHONE: 910-451-2390 | WEATHER: Sunny 60°s | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 12.96 | 12.87 | 12.86 | 12.85 | | | (°C) |
| Specific Conductivity | 0.483 | 0.463 | 0.460 | 0.460 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.57 | 4.39 | 3.21 | 2.98 | | | (mg/L) |
| PH | 6.01 | 6.00 | 5.87 | 5.85 | | | (STD) |
| ORP | -21.4 | -16.5 | -9.1 | -8.0 | | | mV |
| Turbidity (Turb) | 16.4 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 179.88 | (In) (Minus) | Depth to Water | 116.16 | (In) | = | 63.72 | HT (in) |
| Depth to Bottom | 14.99 | (Ft) (Minus) | Depth to Water | 9.68 | (Ft) | = | 5.31 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 63.72 | 1 | 3.14 | 200 | .0043 | 0.9 | | 2.6 | 3 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW09 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW09 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW09 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW09 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTRR-MW10 |
| | | SAMPLE NO. USTRR-MW10 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/25/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1100 |
| PHONE: 910-451-2390 | WEATHER: Sunny Windy 30's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 19.36 | 19.37 | 19.38 | 19.41 | | | (°C) |
| Specific Conductivity | 0.386 | 0.380 | 0.379 | 0.379 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.28 | 3.57 | 1.13 | 0.48 | | | (mg/L) |
| PH | 6.32 | 6.17 | 6.08 | 5.89 | | | (STD) |
| ORP | -116.4 | -138.4 | -141.5 | -146.1 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 179.16 | (In) (Minus) | Depth to Water | 94.68 | (In) | = | 84.48 | HT (in) |
| Depth to Bottom | 14.93 | (Ft) (Minus) | Depth to Water | 7.89 | (Ft) | = | 7.04 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 84.48 | 1 | 3.14 | 265 | .0043 | 1.1 | | 3.4 | 5 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW10 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW10 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW10 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW10 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTRR-MW11 |
| | | SAMPLE NO. USTRR-MW11 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/25/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1300 |
| PHONE: 910-451-2390 | WEATHER: Sunny Windy 30's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 17.41 | 17.40 | 17.42 | 17.45 | | | (°C) |
| Specific Conductivity | 0.331 | 0.327 | 0.327 | 0.326 | | | (mS/cm$^6$) |
| Dissolved Oxygen (DO) | 6.29 | 5.48 | 5.06 | 4.87 | | | (mg/L) |
| PH | 6.13 | 6.29 | 6.08 | 6.08 | | | (STD) |
| ORP | 38.4 | 41.2 | 44.9 | 51.0 | | | mV |
| Turbidity (Turb) | 587.4 | 338.9 | 127.4 | 36.1 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 176.46 | (In) (Minus) | Depth to Water | 78.12 | (In) | = | 98.28 | HT (in) |
| Depth to Bottom | 14.70 | (Ft) (Minus) | Depth to Water | 6.51 | (Ft) | = | 8.19 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 98.28 | 1 | 3.14 | 309 | .0043 | 1.3 | | 4 | 4 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW11 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW11 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW11 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW11 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTRR-MW12 | |
| SAMPLE NO. USTRR-MW12 | |
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin — DATE 1/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin — TIME 1208 |
| PHONE: 910-451-2390 | WEATHER: Windy Cloudy 50's |
| LEL: | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer — No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.39 | 19.41 | 19.46 | 19.57 | | | (°C) |
| Specific Conductivity | 0.441 | 0.401 | 0.386 | 0.386 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.35 | 1.19 | 0.96 | 0.21 | | | (mg/L) |
| PH | 6.29 | 6.20 | 6.19 | 6.19 | | | (STD) |
| ORP | -136.8 | -142.5 | -145.8 | -151.6 | | | mV |
| Turbidity (Turb) | 986.4 | 968.4 | 932.5 | 899.4 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 153.72 | (In) (Minus) | Depth to Water | 66.60 | (In) | = | 87.12 | HT (in) |
| Depth to Bottom | 12.81 | (Ft) (Minus) | Depth to Water | 5.55 | (Ft) | = | 7.26 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 87.12 | 1 | 3.14 | 274 | .0043 | 1.2 | | 3.5 | 4 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW12 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW12 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW12 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW12 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: | 126006 |
| PROJECT NAME: | Rapid Refueler |
| WELL NO. | USTRR-MW14 |
| SAMPLE NO. | USTRR-MW14 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/25/07 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1415 |
| PHONE: 910-451-2390 | WEATHER: Sunny Windy 30-40 | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 20.86 | 21.01 | 21.23 | 21.36 | | | (°C) |
| Specific Conductivity | 0.201 | 0.199 | 0.198 | 0.198 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 7.29 | 5.48 | 3.12 | 0.97 | | | (mg/L) |
| PH | 7.12 | 6.87 | 6.80 | 6.29 | | | (STD) |
| ORP | -129.8 | -139.4 | -156.7 | -157.8 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 577.20 | (In) (Minus) | Depth to Water | 77.16 | (In) | = | 500.04 | HT (in) |
| Depth to Bottom | 48.10 | (Ft) (Minus) | Depth to Water | 6.43 | (Ft) | = | 41.67 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 500.04 | 1 | 3.14 | 1570 | .0043 | 6.8 | | 20.3 | 21 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW14 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW14 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW14 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW14 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: | 126006 |
| PROJECT NAME: | Rapid Refueler |
| WELL NO. | USTRR-MW15 |
| SAMPLE NO. | USTRR-MW15 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/25/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1530 |
| PHONE: 910-451-2390 | WEATHER: Sunny Windy 40's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.29 | 18.31 | 18.44 | 18.40 | | | (°C) |
| Specific Conductivity | 0.437 | 0.421 | 0.420 | 0.420 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 8.13 | 4.29 | 1.13 | 0.70 | | | (mg/L) |
| PH | 7.13 | 7.10 | 6.89 | 6.50 | | | (STD) |
| ORP | -33.4 | -29.9 | -27.4 | -26.1 | | | mV |
| Turbidity (Turb) | 999.8 | 731.4 | 638.5 | 622.4 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 369.96 | (In) (Minus) | Depth to Water | 78.96 | (In) | = | 291.00 | HT (in) |
| Depth to Bottom | 30.83 | (Ft) (Minus) | Depth to Water | 6.58 | (Ft) | = | 24.25 | HT (ft) |

d = 26 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 291 | 1 | 3.14 | 8224 | .0043 | 35.4 | | 106.1 | 100. |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW15 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW15 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW15 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW15 | 3 x 40ml | HCL |

COMMENTS: Duplicate Sample Taken

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTRR-MW16 | |
| SAMPLE NO. | |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 4 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not sampled 0.02"
Product = Asorbent sock in well

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTRR-MW17
SAMPLE NO. USTRR-MW17

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 0800 |
| PHONE: 910-451-2390 | WEATHER: Sunny Windy 30's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 21.17 | | | | | | (°C) |
| Specific Conductivity | 0.231 | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.41 | | | | | | (mg/L) |
| PH | 6.17 | | | | | | (STD) |
| ORP | -139.8 | | | | | | mV |
| Turbidity (Turb) | 36.5 | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 118.80 | (In) (Minus) | Depth to Water | 54.84 | (In) | = | 63.96 | HT (in) |
| Depth to Bottom | 9.90 | (Ft) (Minus) | Depth to Water | 4.57 | (Ft) | = | 5.33 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 63.96 | 1 | 3.14 | 201 | .0043 | 0.9 | | 2.6 | 1 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW17 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW17 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW17 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW17 | 3 x 40ml | HCL |

COMMENTS: Purged Dry 1 X Vol Allowed to Recharge & Sampled

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTRR-MW18 | |
| SAMPLE NO. | |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm$^6$) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | r$^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well NOT sampled
3.21' Product.

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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Shaw Environmental & Infrastructure, Inc.

# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTRR-MW19
SAMPLE NO.

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well not sampled
0.78' product

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTRR-MW20 |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not Sampled

0.08' Product

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTRR-MW21
SAMPLE NO. USTRR-MW21

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/21/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1200 |
| PHONE: 910-451-2390 | WEATHER: Sunny 30's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.87 | 18.91 | 18.99 | 14.71 | | | (°C) |
| Specific Conductivity | 0.101 | 0.097 | 0.091 | 0.089 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.39 | 5.17 | 4.87 | 4.76 | | | (mg/L) |
| PH | 6.17 | 5.89 | 5.88 | 5.85 | | | (STD) |
| ORP | 67.9 | 60.8 | 57.6 | 55.5 | | | mV |
| Turbidity (Turb) | 14.9 | 6.2 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 166.20 | (In) (Minus) | Depth to Water | 63.48 | (In) | = | 102.72 | HT (in) |
| Depth to Bottom | 13.85 | (Ft) (Minus) | Depth to Water | 5.29 | (Ft) | = | 8.56 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 102.72 | 1 | 3.14 | 323 | .0043 | 1.4 | | 4.2 | 5 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW21 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW21 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW21 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW21 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. UST RR - MW 22 |
| | | SAMPLE NO. UST RR - MW22 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1630 |
| PHONE: 910-451-2390 | WEATHER: PC WINDY 50's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | 22.36 | 21.41 | 21.45 | | | (°C) |
| Specific Conductivity | | 0.291 | 0.298 | 0.303 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | 1.17 | 0.48 | 0.12 | | | (mg/L) |
| PH | | 7.57 | 7.55 | 7.53 | | | (STD) |
| ORP | | -170.8 | -173.9 | -181.4 | | | mV |
| Turbidity (Turb) | | 1035.4 | 987.4 | 693.8 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 174.00 | (In) (Minus) | Depth to Water | 113.64 | (In) | = | 60.36 | HT (in) |
| Depth to Bottom | 14.50 | (Ft) (Minus) | Depth to Water | 9.47 | (Ft) | = | 5.03 | HT (ft) |

d = 4 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 60.36 | 1 | 3.14 | 758 | .0043 | 3.3 | | 9.8 | 10 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | UST RR - MW 22 | 3 x 40ml | HCL |
| PAH 625 | UST RR - MW 22 | 2 x 1 Liter Amber | None |
| MADEP EPH | UST RR - MW 22 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | UST RR - MW 22 | 3 x 40ml | HCL |

COMMENTS: Purge water very silty cloudy.

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTRR-MW23 | |
| SAMPLE NO. USTRR-MW23 | |
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin |
| PHONE: 910-451-2390 | WEATHER: Windy 30's Sunny |
| LEL: | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer / No |

DATE 1/20/08
TIME 1000

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 17.96 | 18.04 | 18.17 | 18.24 | | | (°C) |
| Specific Conductivity | 0.213 | 0.197 | 0.186 | 0.186 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 4.39 | 2.11 | 1.69 | 0.40 | | | (mg/L) |
| PH | 6.32 | 5.75 | 5.54 | 5.39 | | | (STD) |
| ORP | -87.6 | -93.5 | -110.4 | -113.8 | | | mV |
| Turbidity (Turb) | 735.4 | 418.9 | 337.6 | 197.4 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 162.96 | (In) (Minus) | Depth to Water | 100.56 | (In) | = | 62.40 | HT (in) |
| Depth to Bottom | 13.58 | (Ft) (Minus) | Depth to Water | 8.38 | (Ft) | = | 5.20 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 62.40 | 1 | 3.14 | 196 | .0043 | 0.8 | | 2.5 | 3 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW23 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW23 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW23 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW23 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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Shaw Environmental & Infrastructure, Inc.

# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. UST R R - MW01G | |
| SAMPLE NO. | |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 11 |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not Sampled
0.59' product

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. UST 8 R-MW02 G |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not Sampled
1.08' product

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTRR-MW036
SAMPLE NO.

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not Sampled 0.01' product

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. UST RR-MW046 |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm$^6$) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not Sampled
1.10' Product

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTRR-MW056 |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not Sampled.
0.67' product.

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTRR-MW066 |
| | | SAMPLE NO. USTRR-MW066 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 0900 |
| PHONE: 910-451-2390 | WEATHER: SUNNY 30-40° WINDY | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.76 | 19.93 | 19.99 | 20.16 | | | (°C) |
| Specific Conductivity | 0.732 | 0.729 | 0.720 | 0.720 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 7.68 | 5.39 | 2.11 | 1.96 | | | (mg/L) |
| PH | 7.49 | 6.57 | 6.31 | 6.29 | | | (STD) |
| ORP | -37.5 | -52.6 | -61.7 | -77.7 | | | mV |
| Turbidity (Turb) | 0.6 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 262.20 | (In) (Minus) | Depth to Water | 89.88 | (In) | = | 172.32 | HT (in) |
| Depth to Bottom | 21.85 | (Ft) (Minus) | Depth to Water | 7.49 | (Ft) | = | 14.36 | HT (ft) |

d = 6 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 172.32 | 1 | 3.14 | 4870 | .0043 | 20.9 | | 62.8 | 63 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTRR-MW066 | 3 x 40ml | HCL |
| PAH 625 | USTRR-MW066 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTRR-MW066 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTRR-MW066 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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Shaw Environmental & Infrastructure, Inc.

# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTAS511-MW01 | |
| SAMPLE NO. USTAS511-MW01 | |
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin |
| PHONE: 910-451-2390 | WEATHER: |
| LEL: | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer |

DATE 1/21/08
TIME 1400
No

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 19.07 | 18.89 | 18.73 | 18.71 | | | (°C) |
| Specific Conductivity | 0.180 | 0.205 | 0.241 | 0.247 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.39 | 3.87 | 2.21 | 1.96 | | | (mg/L) |
| PH | 5.86 | 5.97 | 5.99 | 6.12 | | | (STD) |
| ORP | -17.4 | -16.9 | -20.8 | -21.2 | | | mV |
| Turbidity (Turb) | 17.9 | 16.7 | 16.5 | 14.3 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 169.56 | (In) (Minus) | Depth to Water | 107.16 | (In) | = | 62.40 | HT (in) |
| Depth to Bottom | 14.13 | (Ft) (Minus) | Depth to Water | 8.93 | (Ft) | = | 5.20 | HT (ft) |

d = 2
r = 1
d/2 = 1

MEASUREMENTS (IN INCHES)
Multiply Together

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 62.40 | 1 | 3.14 | 196 | .0043 | 0.8 | | 2.5 | 3 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS511-MW01 | 3 x 40ml | HCL |
| PAH 625 | USTAS511-MW01 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS511-MW01 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS511-MW01 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS511-MW02
SAMPLE NO USTAS511-MW02

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 11/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1568 |
| PHONE: 910-451-2390 | WEATHER: PC Windy 50's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 19.36 | 19.27 | 19.25 | 19.15 | | | (°C) |
| Specific Conductivity | 0.517 | 0.521 | 0.521 | 0.521 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 4.85 | 2.68 | 1.57 | 0.41 | | | (mg/L) |
| PH | 6.16 | 6.05 | 6.02 | 5.59 | | | (STD) |
| ORP | 36.8 | 44.9 | 56.5 | 61.8 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 178.80 | (In) (Minus) | Depth to Water | 103.32 | (In) | = | 75.48 | HT (in) |
| Depth to Bottom | 14.90 | (Ft) (Minus) | Depth to Water | 8.61 | (Ft) | = | 6.29 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 75.48 | 1 | 3.14 | 237 | .0043 | 1.0 | | 3.1 | 3.5 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS511-MW02 | 3 x 40ml | HCL |
| PAH 625 | USTAS511-MW02 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS511-MW02 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS511-MW02 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTAS511-MW03 |
| | | SAMPLE NO. USTAS511-MW03 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 11/30/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1300 |
| PHONE: 910-451-2390 | WEATHER: SUNNY 60'S | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 22.21 | 21.35 | 20.16 | 20.17 | | | (°C) |
| Specific Conductivity | 0.222 | 0.200 | 0.198 | 0.198 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 7.78 | 7.36 | 7.22 | 7.21 | | | (mg/L) |
| PH | 5.04 | 5.86 | 5.80 | 5.81 | | | (STD) |
| ORP | 162.5 | 173.9 | 177.5 | 181.0 | | | mV |
| Turbidity (Turb) | 94.8 | 63.9 | 0.8 | 8 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 181.20 | (In) (Minus) | Depth to Water | 118.20 | (In) | = | 63.00 | HT (in) |
| Depth to Bottom | 15.10 | (Ft) (Minus) | Depth to Water | 9.85 | (Ft) | = | 5.25 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 63.00 | 1 | 3.14 | 198 | .0043 | 0.9 | | 2.6 | 3 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS511-MW03 | 3 x 40ml | HCL |
| PAH 625 | USTAS511-MW03 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS511-MW03 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS511-MW03 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTAS511-MW04 | |
| SAMPLE NO. USTAS511-MW04 | |
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin |
| PHONE: 910-451-2390 | WEATHER: Windy Cloudy 40's |
| LEL: | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer |

DATE 1/24/08
TIME 1600
No

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 17.28 | | | | | | (°C) |
| Specific Conductivity | 0.057 | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.21 | | | | | | (mg/L) |
| PH | 6.11 | | | | | | (STD) |
| ORP | 113.4 | | | | | | mV |
| Turbidity (Turb) | 986.4 | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 163.20 | (In) (Minus) | Depth to Water | 113.52 | (In) | = | 49.68 | HT (in) |
| Depth to Bottom | 13.60 | (Ft) (Minus) | Depth to Water | 9.46 | (Ft) | = | 4.14 | HT (ft) |

d = 2
r = 1
d/2 = 1

MEASUREMENTS (IN INCHES)
Multiply Together

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 49.68 | 1 | 3.14 | 156 | .0043 | 0.7 | | 2.0 | 0.7 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS511-MW04 | 3 x 40ml | HCL |
| PAH 625 | USTAS511-MW04 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS511-MW04 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS511-MW04 | 3 x 40ml | HCL |

COMMENTS: Purge Dry 1 x Vol Allowed to Recharge And Sampled. Mud in well

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS511-MW05
SAMPLE NO. USTAS511-MW05

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 5/21/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1430 |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 21.30 | 22.41 | 22.57 | 22.58 | | | (°C) |
| Specific Conductivity | 0.216 | 0.291 | 0.298 | 0.325 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 7.65 | 6.39 | 5.87 | 5.21 | | | (mg/L) |
| PH | 7.96 | 8.03 | 8.11 | 8.11 | | | (STD) |
| ORP | -65.9 | -77.4 | -111.8 | -132.9 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 592.20 | (In) (Minus) | Depth to Water | 107.88 | (In) | = | 484.32 | HT (in) |
| Depth to Bottom | 49.35 | (Ft) (Minus) | Depth to Water | 8.99 | (Ft) | = | 40.36 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 484.32 | 1 | 3.14 | 1521 | .0043 | 6.5 | | 19.6 | 20 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS511-MW05 | 3 x 40ml | HCL |
| PAH 625 | USTAS511-MW05 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS511-MW05 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS511-MW05 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. UST AS 511 - MW06
SAMPLE NO. UST AS511 -MW06

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1530 |
| PHONE: 910-451-2390 | WEATHER: PC windy 50's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 22.46 | 22.36 | 22.21 | 22.21 | | | (°C) |
| Specific Conductivity | 0.217 | 0.208 | 0.197 | 0.197 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 4.28 | 1.17 | 0.86 | 0.17 | | | (mg/L) |
| PH | 7.62 | 7.58 | 7.56 | 7.55 | | | (STD) |
| ORP | -128.4 | -144.1 | -145.5 | -155.8 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 585.56 | (In) (Minus) | Depth to Water | 108.12 | (In) | = | 481.44 | HT (in) |
| Depth to Bottom | 49.13 | (Ft) (Minus) | Depth to Water | 9.01 | (Ft) | = | 40.12 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 481.44 | 1 | 3.14 | 1512 | .0043 | 6.5 | | 19.5 | 20 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | UST AS511-MW06 | 3 x 40ml | HCL |
| PAH 625 | UST AS511-MW06 | 2 x 1 Liter Amber | None |
| MADEP EPH | UST AS511-MW06 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | UST AS511-MW06 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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Shaw Environmental & Infrastructure, Inc.

# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS511-MW07
SAMPLE NO. USTAS511-MW07

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/30/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1345 |
| PHONE: 910-451-2390 | WEATHER: Sunny 60's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 20.53 | 20.41 | 20.36 | 20.35 | | | (°C) |
| Specific Conductivity | 0.173 | 0.171 | 0.171 | 0.170 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 7.17 | 6.39 | 6.25 | 6.25 | | | (mg/L) |
| PH | 7.09 | 7.12 | 7.12 | 7.13 | | | (STD) |
| ORP | -110.3 | -79.6 | 56.5 | 77.9 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 591.00 | (In) (Minus) | Depth to Water | 117.60 | (In) | = | 473.40 | HT (in) |
| Depth to Bottom | 49.25 | (Ft) (Minus) | Depth to Water | 9.80. | (Ft) | = | 39.45 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 473.40 | 1 | 3.14 | 1486 | .0043 | 6.4 | | 19.2 | 20 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS 511-MW07 | 3 x 40ml | HCL |
| PAH 625 | USTAS511-MW07 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS511-MW07 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS511-MW07 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS511-MW08
SAMPLE NO. USTAS511-MW08

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 11/30/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1430 |
| PHONE: 910-451-2390 | WEATHER: Sunny 60's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 22.49 | 22.08 | 21.76 | 20.63 | | | (°C) |
| Specific Conductivity | 0.098 | 0.076 | 0.070 | 0.070 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.71 | 5.38 | 5.01 | 4.37 | | | (mg/L) |
| PH | 5.28 | 5.63 | 5.49 | 5.13 | | | (STD) |
| ORP | 203.7 | 200.1 | 174.5 | 111.8 | | | mV |
| Turbidity (Turb) | 998.7 | 932.4 | 663.4 | 663.5 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 170.04 | (In) (Minus) | Depth to Water | 113.76 | (In) | = | 56.28 | HT (in) |
| Depth to Bottom | 14.17 | (Ft) (Minus) | Depth to Water | 9.48 | (Ft) | = | 4.69 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 56.28 | 1 | 3.14 | 177 | .0043 | 0.8 | | 2.3 | 3 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS511-MW08 | 3 x 40ml | HCL |
| PAH 625 | USTAS511-MW08 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS511-MW08 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS511-MW08 | 3 x 40ml | HCL |

COMMENTS: Silty water.

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTA5527-MW03
SAMPLE NO. USTA5527-MW03

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/24/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1300 |
| PHONE: 910-451-2390 | WEATHER: Cloudy Windy 40's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 20.81 | 20.01 | 19.87 | 19.75 | | | (°C) |
| Specific Conductivity | 0.357 | 0.349 | 0.345 | 0.345 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.38 | 6.21 | 5.97 | 5.08 | | | (mg/L) |
| PH | 7.13 | 7.29 | 7.11 | 7.10 | | | (STD) |
| ORP | -86.5 | -117.4 | -121.4 | -132.0 | | | mV |
| Turbidity (Turb) | 18.7 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 351.72 | (In) (Minus) | Depth to Water | 128.64 | (In) | = | 223.08 | HT (in) |
| Depth to Bottom | 29.31 | (Ft) (Minus) | Depth to Water | 10.72 | (Ft) | = | 18.59 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 223.08 | 1 | 3.14 | 700 | .0043 | 3.0 | | 9 | 9 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTA5527-MW03 | 3 x 40ml | HCL |
| PAH 625 | USTA5527-MW03 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTA5527-MW03 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTA5527-MW03 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. UST AS 527- MW04 |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Missing could not locate.

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: 126006 | |
| PROJECT NAME: Rapid Refueler | |
| WELL NO. USTAS527-MW10 | |
| SAMPLE NO. USTAS527-MW10 | |
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin |
| PHONE: 910-451-2390 | WEATHER: |
| LEL: | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer |

DATE 1/21/08
TIME 1300
No

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 20.56 | 20.47 | 20.35 | 20.29 | | | (°C) |
| Specific Conductivity | 0.531 | 0.529 | 0.519 | 0.519 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.29 | 3.87 | 2.17 | 1.89 | | | (mg/L) |
| PH | 6.57 | 6.43 | 6.17 | 6.15 | | | (STD) |
| ORP | -76.7 | -63.9 | -57.4 | -50.1 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 168.00 | (In) (Minus) | Depth to Water | 120.84 | (In) | = | 47.16 | HT (in) |
| Depth to Bottom | 14.00 | (Ft) (Minus) | Depth to Water | 10.07 | (Ft) | = | 3.93 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 47.16 | 1 | 3.14 | 148 | .0043 | 0.6 | | 1.9 | 2 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS527 ~~UST527~~-MW10 | 3 x 40ml | HCL |
| PAH 625 | USTAS527-MW10 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS527-MW10 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS527-MW10 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTAS527-MW12 |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well not sampled

0.01' product.

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO USTAS527-DW02
SAMPLE NO. USTAS527-DW02

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/24/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1430 |
| PHONE: 910-451-2390 | WEATHER: Cloudy Windy 40's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 17.27 | 17.04 | 16.97 | 16.98 | | | (°C) |
| Specific Conductivity | 0.221 | 0.179 | 0.177 | 0.177 | | | (mS/cm[e]) |
| Dissolved Oxygen (DO) | 7.41 | 5.29 | 1.17 | 0.31 | | | (mg/L) |
| PH | 6.49 | 6.38 | 6.37 | 6.37 | | | (STD) |
| ORP | -144.9 | -147.0 | -135.8 | -125.8 | | | mV |
| Turbidity (Turb) | 76.4 | 12.9 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 344.40 | (In) (Minus) | Depth to Water | 61.56 | (In) | = | 282.84 | HT (in) |
| Depth to Bottom | 28.70 | (Ft) (Minus) | Depth to Water | 5.13 | (Ft) | = | 23.57 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 282.84 | 1 | 3.14 | 888 | .0043 | 3.8 | | 11.5 | 12 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS527-DW02 | 3 x 40ml | HCL |
| PAH 625 | USTAS527-DW02 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS527-DW02 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS527-DW02 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTA5527-DW06 |
| | | SAMPLE NO. USTA5527-DW06 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/30/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1600 |
| PHONE: 910-451-2390 | WEATHER: Sunny 60's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 19.43 | 19.41 | 18.38 | 19.35 | | | (°C) |
| Specific Conductivity | 0.336 | 0.329 | 0.330 | 0.330 | | | (mS/cm$^c$) |
| Dissolved Oxygen (DO) | 5.69 | 4.21 | 3.79 | 3.76 | | | (mg/L) |
| PH | 7.59 | 7.48 | 7.47 | 7.47 | | | (STD) |
| ORP | -63.8 | -68.4 | -71.5 | -77.0 | | | mV |
| Turbidity (Turb) | 0 | 0 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 520.76 | (In) (Minus) | Depth to Water | 90.60 | (In) | = | 470.16 | HT (in) |
| Depth to Bottom | 46.73 | (Ft) (Minus) | Depth to Water | 7.55 | (Ft) | = | 39.18 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 470.16 | 1 | 3.14 | 1476 | .0043 | 6.3 | | 19 | 20 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTA5527-DW06 | 3 x 40ml | HCL |
| PAH 625 | USTA5527-DW06 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTA5527-DW06 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTA5527-DW06 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|
| OTHER: | | | |

| Shaw Environmental & Infrastructure, Inc. | WELL OR GROUND WATER DATA SHEET | PROJECT NUMBER: 126006 |
|---|---|---|
| | | PROJECT NAME: Rapid Refueler |
| | | WELL NO. USTA5527-MW15 |
| | | SAMPLE NO. |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well Not Sampled

ASORBENT sock in well .. 0.02' product.

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS527-MW16
SAMPLE NO. USTAS527-MW16

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/24/09 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1515 |
| PHONE: 910-451-2390 | WEATHER: windy cloudy 40's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.27 | 18.01 | | | | | (°C) |
| Specific Conductivity | 0.231 | 0.187 | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 4.35 | 1.95 | | | | | (mg/L) |
| PH | 6.01 | 5.76 | | | | | (STD) |
| ORP | -18.4 | -11.7 | | | | | mV |
| Turbidity (Turb) | 0 | 0 | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 142.80 | (In) (Minus) | Depth to Water | 100.88 | (In) | = | 42.72 | HT (in) |
| Depth to Bottom | 11.90 | (Ft) (Minus) | Depth to Water | 8.34 | (Ft) | = | 3.56 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 42.72 | 1 | 3.14 | 134 | .0043 | 0.6 | | 1.7 | 2.6 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS527-MW16 | 3 x 40ml | HCL |
| PAH 625 | USTAS527-MW16 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS527-MW16 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS527-MW16 | 3 x 40ml | HCL |

COMMENTS: Purged Dry 1 x VOL Allowed to Recharge AND Sampled

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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Shaw Environmental & Infrastructure, Inc.

# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS497-MW01
SAMPLE NO. USTAS497-MW01

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 11/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1300 |
| PHONE: 910-451-2390 | WEATHER: Windy BC 50's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.13 | 18.23 | 18.31 | 18.31 | | | (°C) |
| Specific Conductivity | 0.341 | 0.349 | 0.350 | 0.351 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 2.97 | 1.63 | 0.76 | 0.31 | | | (mg/L) |
| PH | 6.94 | 6.17 | 6.11 | 6.10 | | | (STD) |
| ORP | -12.5 | -36.8 | -42.4 | -41.5 | | | mV |
| Turbidity (Turb) | 56.5 | 31.8 | 6.5 | 0. | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 167.40 | (In) (Minus) | Depth to Water | 78.84 | (In) | = | 88.56 | HT (in) |
| Depth to Bottom | 13.95 | (Ft) (Minus) | Depth to Water | 6.57 | (Ft) | = | 7.38 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 88.56 | 1 | 3.14 | 278 | .0043 | 1.2 | | 3.6 | 4 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS497-MW01 | 3 x 40ml | HCL |
| PAH 625 | USTAS497-MW01 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS497-MW01 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS497-MW01 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS497-MW02
SAMPLE NO. USTAS497-MW02

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 11/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1400 |
| PHONE: 910-451-2390 | WEATHER: Windy PC 50's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 18.29 | 18.36 | 18.39 | 18.41 | | | (°C) |
| Specific Conductivity | 0.311 | 0.331 | 0.339 | 0.338 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 6.78 | 2.16 | 0.96 | 0.22 | | | (mg/L) |
| PH | 5.08 | 4.97 | 4.86 | 4.80 | | | (STD) |
| ORP | 63.4 | 99.5 | 121.6 | 137.5 | | | mV |
| Turbidity (Turb) | 32.5 | 20.9 | 21.8 | 20.2 | | | (NTU) |
| | | | | | | | |

173.40 105.36 68.04

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | ~~173.40~~ | (In) (Minus) | Depth to Water | ~~28.84~~ | (In) | = | ~~88.56~~ | HT (in) |
| Depth to Bottom | 14.45 | (Ft) (Minus) | Depth to Water | 8.78 | (Ft) | = | ~~7.38~~ 5.67 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | ~~68.04~~ | 1 | 3.14 | 214 | .0043 | 0.9 | | 2.8 | ~~3~~ |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS497-MW02 | 3 x 40ml | HCL |
| PAH 625 | USTAS497-MW02 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS497-MW02 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS497-MW02 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS497-MW03
SAMPLE NO. UST AS497-MW03

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/29/05 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1000 |
| PHONE: 910-451-2390 | WEATHER: Cloudy Windy 50 | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 19.76 | 19.83 | 19.84 | 19.85 | | | (°C) |
| Specific Conductivity | 0.176 | 0.181 | 0.182 | 0.182 | | | (mS/cm°) |
| Dissolved Oxygen (DO) | 3.49 | 1.17 | 0.96 | 0.34 | | | (mg/L) |
| PH | 5.76 | 5.63 | 5.69 | 5.69 | | | (STD) |
| ORP | -33.3 | -35.9 | -41.8 | -44.6 | | | mV |
| Turbidity (Turb) | 116.5 | 99.4 | 76.8 | 77.4 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 166.80 | (In) (Minus) | Depth to Water | 86.40 | (In) | = | 80.40 | HT (in) |
| Depth to Bottom | 13.90 | (Ft) (Minus) | Depth to Water | 7.20 | (Ft) | = | 6.70 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together
d/2 = 1

| | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 80.40 | 1 | 3.14 | 252 | .0043 | 1.1 | | 3.3 | 5 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS497-MW03 | 3 x 40ml | HCL |
| PAH 625 | UST AS497-MW03 | 2 x 1 Liter Amber | None |
| MADEP EPH | UST AS497-MW03 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | UST AS497-MW03 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTAS497-MW04
SAMPLE NO. USTAS497-MW04

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 0900 |
| PHONE: 910-451-2390 | WEATHER: Cloudy Windy 50's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 19.48 | 19.51 | 19.55 | 19.55 | | | (°C) |
| Specific Conductivity | 0.179 | 0.186 | 0.185 | 0.185 | | | (mS/cm[e]) |
| Dissolved Oxygen (DO) | 4.87 | 3.31 | 0.90 | 0.90 | | | (mg/L) |
| PH | 5.78 | 5.63 | 5.59 | 5.59 | | | (STD) |
| ORP | -118.4 | -67.4 | -31.5 | -23.2 | | | mV |
| Turbidity (Turb) | 37.6 | 1.8 | 0 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 168.00 | (In) (Minus) | Depth to Water | 84.96 | (In) | = | 83.04 | HT (in) |
| Depth to Bottom | 14.00 | (Ft) (Minus) | Depth to Water | 7.08 | (Ft) | = | 6.92 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 83.04 | 1 | 3.14 | 261 | .0043 | 1.1 | | 3.4 | 5 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS497-MW04 | 3 x 40ml | HCL |
| PAH 625 | USTAS497-MW04 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS497-MW04 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS497-MW04 | 3 x 40ml | HCL |

COMMENTS:

| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
|---|---|---|---|

OTHER:

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# WELL OR GROUND WATER DATA SHEET

PROJECT NUMBER: 126006
PROJECT NAME: Rapid Refueler
WELL NO. USTA5497-MW05
SAMPLE NO.

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/20/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME |
| PHONE: 910-451-2390 | WEATHER: | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | | | | | | | (°C) |
| Specific Conductivity | | | | | | | (mS/cm°) |
| Dissolved Oxygen (DO) | | | | | | | (mg/L) |
| PH | | | | | | | (STD) |
| ORP | | | | | | | mV |
| Turbidity (Turb) | | | | | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | | (In) (Minus) | Depth to Water | | (In) | = | | HT (in) |
| Depth to Bottom | | (Ft) (Minus) | Depth to Water | | (Ft) | = | | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)
r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | | 1 | 3.14 | | .0043 | | | | |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | | 3 x 40ml | HCL |
| PAH 625 | | 2 x 1 Liter Amber | None |
| MADEP EPH | | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | | 3 x 40ml | HCL |

COMMENTS: Product in well NOT SAMPLED.
0 to 28' product.

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

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# WELL OR GROUND WATER DATA SHEET

| | |
|---|---|
| PROJECT NUMBER: | 126006 |
| PROJECT NAME: | Rapid Refueler |
| WELL NO. | USTAS497-MW06 |
| SAMPLE NO. | USTAS497-MW06 |

| | | |
|---|---|---|
| PROJECT LOCATION: Camp Lejeune | LOGGER: Mark Martin | DATE 1/29/08 |
| PROJECT CONTACT: Mark Martin | SAMPLER: Mark Martin | TIME 1100 |
| PHONE: 910-451-2390 | WEATHER: Windy Cloudy 50's | |
| LEL: | | Well Locked: [X] Yes |
| PID: | Sampling Device: Bailer | No |

FIELD MEASUREMENTS

| | 1 | 2 | 3 | 4 | | | |
|---|---|---|---|---|---|---|---|
| Temperature (Temp) | 20.35 | 20.41 | 20.48 | 20.48 | | | (°C) |
| Specific Conductivity | 0.636 | 0.630 | 0.610 | 0.610 | | | (mS/cm$^c$) |
| Dissolved Oxygen (DO) | 3.29 | 1.47 | 0.86 | 0.21 | | | (mg/L) |
| PH | 7.57 | 7.30 | 7.41 | 7.41 | | | (STD) |
| ORP | 17.9 | -123.8 | -139.4 | -144.0 | | | mV |
| Turbidity (Turb) | 4.8 | 3.9 | 0.8 | 0 | | | (NTU) |
| | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Depth to Bottom | 591.60 | (In) (Minus) | Depth to Water | 84.24 | (In) | = | 507.36 | HT (in) |
| Depth to Bottom | 49.30 | (Ft) (Minus) | Depth to Water | 7.02 | (Ft) | = | 42.28 | HT (ft) |

d = 2 MEASUREMENTS (IN INCHES)

r = 1 Multiply Together

| d/2 = 1 | BOTTOM | TOP | Layer Thickness | $r^2$ | Π | Vol. Cubic in. | Conversion Factor | EST. GALLONS | | Purge Vol. | Vol. Purged |
|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP | | | 507.36 | 1 | 3.14 | 1593 | .0043 | 6.9 | | 20.6 | 21 |
| Middle | | | | | 3.14 | | .0043 | | | | |
| Bottom | | | | | 3.14 | | .0043 | | | | |
| Total | | | | | 3.14 | | .0043 | | | | |

| ANALYTE | CONTAINER NUMBER | SIZE | PRESERVATIVE |
|---|---|---|---|
| VOC 602 | USTAS497-MW06 | 3 x 40ml | HCL |
| PAH 625 | USTAS497-MW06 | 2 x 1 Liter Amber | None |
| MADEP EPH | USTAS497-MW06 | 2 x 1 Liter Amber | H2SO4 |
| MADEP VPH | USTAS497-MW06 | 3 x 40ml | HCL |

COMMENTS:

| | | | |
|---|---|---|---|
| PURGE DISCHARGED: | DRUM: | DRUM# | SITE TREATMENT: [X] |
| OTHER: | | | |

# APPENDIX B

# AFVR REPORTS AND SUMMARY TABLE

**Aggressive Fluid Vapor Recovery (AFVR)**
**Petroleum Recovery Data**
**Rapid Refueler A-B Tanks**
**First Semester 2008**

| Month | Number of Events | Petroleum Recovery | |
|---|---|---|---|
| | | Pounds | Gallons |
| Jan-08 | 0 | 0.0 | 0.0 |
| Feb-08 | 1 | 15.7 | 2.5 |
| Mar-08 | 1 | 105.8 | 16.3 |
| Apr-08 | 2 | 416.4 | 66.2 |
| | | | |
| **Total** | **4** | **537.9** | **85** |

**Aggressive Fluid Vapor Recovery (AFVR)**
**Petroleum Recovery Data**
**Rapid Refueler A-B Tanks**
**Second Semester 2007**

| Month | Number of Events | Petroleum Recovery | |
|---|---|---|---|
| | | Pounds | Gallons |
| May-07 | 1 | 88.1 | 14.0 |
| Jun-07 | 1 | 86.1 | 13.7 |
| Jul-07 | 1 | 71.4 | 11.4 |
| Aug-07 | 0 | 0.0 | 0.0 |
| Sep-07 | 1 | 92.9 | 14.8 |
| Oct-07 | 0 | 0.0 | 0.0 |
| Nov-07 | 1 | 73.0 | 11.6 |
| Dec-07 | 1 | 96.3 | 15.3 |
| **Total** | **6** | **507.8** | **80.8** |

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 06/06/07
**Event #:** 156
**Event Date:** 05/17/07

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 2.81 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 1.75 hour(s)

| | | | | | |
|---|---|---|---|---|---|
| **Stack TPH Recovery (lbs):** | 63.0 vapor | + | 25.1 liquid = | 88.1 |
| **Stack TPH Recovery (gals):** | 10.0 vapor | + | 4.0 liquid = | 14.0 |

**Total Est. Fluids Rec.:** 114.00 gals

**Conclusions and Recommendations:**

A total of 88.1 pounds or 14.0 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 4 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 06/27/07
**Event #:** 157
**Event Date:** 06/09/07

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 2.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 1.75 hour(s)

| | | | | | |
|---|---|---|---|---|---|
| Stack TPH Recovery (lbs): | 60.9 vapor | + | 25.1 liquid = | 86.1 |
| Stack TPH Recovery (gals): | 9.7 vapor | + | 4.0 liquid = | 13.7 |

**Total Est. Fluids Rec.:** 144.00 gals

**Conclusions and Recommendations:**

A total of 86.1 pounds or 13.7 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 4 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 08/07/07
**Event #:** 158
**Event Date:** 07/20/07

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 2.93 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 1.50 hour(s)

| | | | | | |
|---|---|---|---|---|---|
| **Stack TPH Recovery (lbs):** | 52.6 vapor | + | 18.8 liquid = | 71.4 | |
| **Stack TPH Recovery (gals):** | 8.4 vapor | + | 3.0 liquid = | 11.4 | |
| **Total Est. Fluids Rec.:** | 253.00 gals | | | | |

**Conclusions and Recommendations:**

A total of 71.4 pounds or 11.4 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 3 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 10/08/07
**Event #:** 159
**Event Date:** 09/22/07

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 3.72 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 1.50 hour(s)

| | | | | | |
|---|---|---|---|---|---|
| **Stack TPH Recovery (lbs):** | 70.9 vapor | + | 22.0 liquid = | 92.9 |
| **Stack TPH Recovery (gals):** | 11.3 vapor | + | 3.5 liquid = | 14.8 |

**Total Est. Fluids Rec.:** 253.50 gals

**Conclusions and Recommendations:**

A total of 92.9 pounds or 14.8 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 3 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 12/10/07
**Event #:** 160
**Event Date:** 11/30/07

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 4.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 1.25 hour(s)

| | | | | | |
|---|---|---|---|---|---|
| **Stack TPH Recovery (lbs):** | 47.9 vapor | + | 25.1 liquid = | 73.0 | |
| **Stack TPH Recovery (gals):** | 7.6 vapor | + | 4.0 liquid = | 11.6 | |

**Total Est. Fluids Rec.:** 154.00 gals

**Conclusions and Recommendations:**

A total of 73.0 pounds or 11.6 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 4 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 01/09/08
**Event #:** 161
**Event Date:** 12/19/07

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 3.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 1.45 hour(s)
**Stack TPH Recovery (lbs):** 66.5 vapor + 29.8 liquid = 96.3
**Stack TPH Recovery (gals):** 10.6 vapor + 4.8 liquid = 15.3
**Total Est. Fluids Rec.:** 154.75 gals

**Conclusions and Recommendations:**

A total of 96.3 pounds or 15.3 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 4.75 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor ... very (AFVR) Data Sheet

**Facility:** MCB Camp Lejeune, NC

**Location:** MCAS New River, Bldg AS-498

**Project #:** 126006

**Initials:** J.M.

**Date:** 2-15-08

**Start Time:** 1245

## Baseline Data - AFVR and Observation Wells

| WELL IDENTIFICATION | RR-16 | RR-73 | | | |
|---|---|---|---|---|---|
| AFVR WELL (YES/NO) | Yes | No | | | |
| WELL DEPTH (FT BLS) | 14.50 | 13.65 | | | |
| DIAMETER (INCH) | 4" | 2" | | | |
| DEPTH TO PRODUCT (FT) | 9.06 | 0 | | | |
| DEPTH TO WATER (FT) | 10.81 | 7.71 | | | |
| PRODUCT THICKNESS (FT) | 1.75 | 0 | | | |
| SCREEN INTERV. (FT BLS) | N/A | N/A | | | |

## AFVR Stack and Vacuum Truck Data

| | |
|---|---|
| Stack Diameter | 6 inches |
| FID Calibration Gas | Methane |
| Calibrated yes/no | No |

| Fluids Recovered | |
|---|---|
| Water (gals) | 150 |
| Product (gals) | 2 ½ |

## Water level Measurements - AFVR and Observation Wells (from TOC)

| Actual Time | Elapsed Time | DTW | DTP | DTW | DTP | DTW | DTP | DTW | DTP | DTW | DTP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1245 | 0:00 | 10.81 | 9.06 | 7.71 | 0 | | | | | | |
| 1300 | 0:15 | - | - | 7.71 | 0 | | | | | | |
| 1315 | 0:30 | - | - | 7.71 | 0 | | | | | | |
| 1330 | 0:45 | - | - | 7.71 | 0 | | | | | | |
| 1345 | 1:00 | - | - | 7.72 | 0 | | | | | | |
| 1400 | 1:15 | - | - | 7.72 | 0 | | | | | | |
| 1415 | 1:30 | - | - | 7.72 | 0 | | | | | | |
| 1430 | 1:45 | - | - | 7.72 | 0 | | | | | | |
| 1445 | 2:00 | 10.38 | 0 | 7.72 | 0 | | | | | | |
| | 2:30 | | | | | | | | | | |
| | 3:00 | | | | | | | | | | |
| | 3:30 | | | | | | | | | | |
| | 4:00 | | | | | | | | | | |
| | 4:30 | | | | | | | | | | |
| | 5:00 | | | | | | | | | | |
| | 5:30 | | | | | | | | | | |
| | 6:00 | | | | | | | | | | |

NOTE: DTW - Depth to Water (ft, TOC) :: DTP - Depth to Product (ft, TOC)

## AFVR Stack and Vacuum Truck Measurements

| Elapsed Time | FID (ppm) | Velocity (ft/sec) | Velocity (m/sec) | Temp (°F) | Temp (°C) | Vac Truck ("Hg) | Vac Truck (RPM) |
|---|---|---|---|---|---|---|---|
| 0:00 | | | | | | 17 | 600 |
| 0:15 | | | | | | | |
| 0:30 | | | | | | | |
| 0:45 | | | | | | | |
| 1:00 | | | | | | 17 | 600 |
| 1:15 | | | | | | | |
| 1:30 | | | | | | | |
| 1:45 | | | | | | | |
| 2:00 | | | | | | 17 | 600 |
| 2:30 | | | | | | | |
| 3:00 | | | | | | | |
| 3:30 | | | | | | | |
| 4:00 | | | | | | | |
| 4:30 | | | | | | | |
| 5:00 | | | | | | | |
| 5:30 | | | | | | | |
| 6:00 | | | | | | | |

MCB Camp Lejeune 2-15-08

Job # 126006 MCAS New River, Bldg AS-498

1230 Gauged wells and set-up vac truck

| Well # | DTP | DTW | Total |
|---|---|---|---|
| RR-18 | 9.06 | 10.81 | 1.75 |
| RR-23 | 0 | 7.71 | 0 |

1245 Started Vac truck @ 17" Vac pressure, 600 RPM.

1445 Shut down vac truck after 2 Hours. Approximately 2 ½ Gallons of product recovered and 150 Gallons of water collected. Product/Water mixture dumped at Oil/Water seperator @ Bldg 1323, Camp Lejeune

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 04/07/08
**Event #:** 162
**Event Date:** 03/26/08

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 2.30 hour(s)
**Stack TPH Recovery (lbs):** 87.0 vapor + 18.8 liquid = 105.8
**Stack TPH Recovery (gals):** 13.9 vapor + 3.0 liquid = 16.9
**Total Est. Fluids Rec.:** 203.00 gals

**Conclusions and Recommendations:**

A total of 105.8 pounds or 16.3 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 3.0 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor Recovery Report

MCB Camp Lejeune, North Carolina

**Site Name:** MCB Camp Lejeune
**Site Location:** Building 498
**Work Plan Ref:** August, 1997

**Incident #:**
**Site Priority Rank:**

**Report Date:** 05/05/08
**Event #:** 163
**Event Date:** 04/12/08

**Free Prod Type:** Gasoline

| Wells Gauged: | RR-12 | RR-1G | RR-18 | RR-2G | RR-4G | MW-06 | RR-20 | RR-21 | RR-5G | RR-23 | MW-16 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Free Prod. Thickness: | 0.00 | 0.00 | 2.75 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| AFVR Wells Selected: | | | X | | | | | | | | |
| Observ. Wells Selected: | | | | | | | | | | X | |

**Event Duration:** 2.00 hour(s)

| | | | | | |
|---|---|---|---|---|---|
| **ck TPH Recovery (lbs):** | 70.5 vapor | + | 37.7 liquid = | 108.2 |
| **ck TPH Recovery (gals):** | 11.2 vapor | + | 6.0 liquid = | 17.2 |

**Total Est. Fluids Rec.:** 356.00 gals

**Conclusions and Recommendations:**

A total of 108.2 pounds or 17.2 gallons of gasoline were removed from the site during this AFVR event. A free product volume of 6.0 gallons was detected floating in the vacuum truck at the end of the event. Some extracted vapor concentrations measured during this AFVR event were greater than 200,000 ppm, so estimated total hydrocarbon extraction for this event and all considered conservative. Shaw recommends continued AFVR events in this area.

**Prepared By:** Betsy McDaniel

**Reviewed By:** James A. Dunn, Jr., P.E.
Shaw Environmental

**Attachments:** Tables 1, 2, 3, 4.

# Aggressive Fluid Vapor Recovery (AFVR) Data Sheet

**Facility:** MCAS New River, NC

**Location:** Rapid Refueler

**Project #:** 126006

**Initials:** CH

**Date:** 4/12/08

**Start Time:** 1130

## Baseline Data - AFVR and Observation Wells

| WELL IDENTIFICATION | RR1G | X | | | |
|---|---|---|---|---|---|
| AFVR WELL (YES/NO) | Yes | | | | |
| WELL DEPTH (FT BLS) | 20.00 | | | | |
| DIAMETER (INCH) | 6" | | | | |
| DEPTH TO PRODUCT (FT) | 4.73 | | | | |
| DEPTH TO WATER (FT) | 7.41 | | | | |
| PRODUCT THICKNESS (FT) | 2.68 | | | | |
| SCREEN INTERV. (FT BLS) | — | | | | |

## AFVR Stack and Vacuum Truck Data

| | |
|---|---|
| Stack Diameter | 6 inches |
| FID Calibration Gas | Methane |
| Calibrated yes/no | Yes |

| Fluids Recovered | |
|---|---|
| Water (gals) | 500 |
| Product (gals) | 10 |

## Water level Measurements - AFVR and Observation Wells (from TOC)

| Actual Time | Elapsed Time | DTW | DTP | DTW | DTP | DTW | DTP | DTW | DTP | DTW | DTP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1130 | 0:00 | 7.41 | 4.73 | | | | | | | | |
| 1145 | 0:15 | — | — | | | | | | | | |
| 1200 | 0:30 | — | — | | | | | | | | |
| 1215 | 0:45 | — | — | | | | | | | | |
| 1230 | 1:00 | — | — | | | | | | | | |
| 1245 | 1:15 | — | — | | | | | | | | |
| 1300 | 1:30 | — | — | | | | | | | | |
| 1315 | 1:45 | — | — | | | | | | | | |
| 1330 | 2:00 | — | — | | | | | | | | |
| 1345 | 2:30 | — | — | | | | | | | | |
| 1400 | 3:00 | 5.39 | — | | | | | | | | |
| | 3:30 | | | | | | | | | | |
| | 4:00 | | | | | | | | | | |
| | 4:30 | | | | | | | | | | |
| | 5:00 | | | | | | | | | | |
| | 5:30 | | | | | | | | | | |
| | 6:00 | | | | | | | | | | |

NOTE: DTW - Depth to Water (ft, TOC) :: DTP - Depth to Product (ft, TOC)

## AFVR Stack and Vacuum Truck Measurements

| Elapsed Time | FID (ppm) | Velocity (ft/sec) | Velocity m/sec | Temp (°F) | Temp (°C) | Vac Truck ("Hg) | Vac Truck (RPM) |
|---|---|---|---|---|---|---|---|
| 0:00 | >200.000 | 400 | — | 70 | — | 24 | 650 |
| 0:15 | >200.000 | 400 | — | 72 | — | | |
| 0:30 | >200.000 | 400 | — | 72 | — | | |
| 0:45 | >200.000 | 400 | — | 73 | — | | |
| 1:00 | >200.000 | 400 | — | 73 | — | 24 | 650 |
| 1:15 | >200.000 | 400 | — | 75 | — | | |
| 1:30 | >200.000 | 400 | — | 75 | — | | |
| 1:45 | 187.638 | 400 | — | 76 | — | | |
| 2:00 | 175.930 | 400 | — | 77 | — | 24 | 650 |
| 2:30 | 163.292 | 400 | — | 78 | — | | |
| 3:00 | 158.000 | 400 | — | 80 | — | | |
| 3:30 | | | | | | | |
| 4:00 | | | | | | | |
| 4:30 | | | | | | | |
| 5:00 | | | | | | | |
| 5:30 | | | | | | | |
| 6:00 | | | | | | | |

* NO Secondary water levels Taken Due to Proximity of well without Product

MCAS New River, NC 4/12/08

Job# 126006 Rapid Refueler

1115 Gauged well and started vac trk

| Well# | DTP | DTW | Total |
|---|---|---|---|
| RR1G | 4.73 | 7.41 | 2.68 |

1130 Started vac truck 24" vac 650 RPM's

1400 shutdown system Approximently 10 gallons of Product and 500 gallons of water collected Product/water mixture Treated at the o.l water Seperator. NO Secondary water levels were taken Due to. proximity of wells without product

MCAS New River, NC 4/12/08

JOB 126006 Rapid Refueler.

1415 Gauged well and started VAC Truck

| Well # | DTP | DTW | Tot AC. |
|---|---|---|---|
| RR16 | 7.05 | 7.81 | 0.76 |

1430 Started VAC Truck 24" VAC 650 RPM's

1630 Shutdown system.. Approximately 7 gallons of product and 400 gallons of water. Collected Product/water mixture treated at the o.c water separator.

MCAS New River, NC 4/12/08

Job 126006 Rapid Refueler

1645 Gauged well and started vac truck

| Well # | DTP | DTW | Total |
|---|---|---|---|
| RR4G | 3.66 | 5.76 | 2.10 |

1700 Started vac truck 24" vac. 650 RPM's

1900 Shut down system. Approximately 12 gallons of product and 550 gallons of water collected. Product/water mixture treated at the oil water Seperator.

MCB Camp Lejeune, NC
Job 126006

# AFVR RR-1G

MCAS New River Bldg AS-498

Date: 4-23-08
Time: 0930

Sampler: Charles Hefner
Conditions: 71° Cloudy

| Time | RR1G | RR2G | RR3G | RR4G | RR5G | RR-16 | RR-18 |
|---|---|---|---|---|---|---|---|
| (INITIAL) 9:30:00 | 5.70/6.30 | 4.22/4.75 | 6.23 | 5.72 | 5.91 | 7.64/8.29 | 7.91/10.05 |
| 10:00 | | 4.22/4.75 | 6.23 | 5.72 | 5.91 | 7.69/8.39 | 7.91/10.05 |
| 10:15 | | 4.22/4.75 | 6.23 | 5.72 | 5.91 | 7.69/8.39 | 7.91/10.05 |
| 10:30 | | 4.22/4.75 | 6.23 | 5.72 | 5.91 | 7.69/8.39 | 7.91/10.05 |
| 10:45 | | 4.23/4.40 | 6.23 | 5.72 | 5.91 | 7.69/8.39 | 7.91/10.05 |
| 11:00 | | 4.23/4.40 | 6.23 | 5.72 | 5.91 | 7.71/8.45 | 7.91/10.05 |
| 11:30 | | 4.23/4.40 | 6.23 | 5.72 | 5.92 | 7.72/8.47 | 7.85/10.14 |
| 12:00 | | 4.27/4.28 | 6.23 | 5.72 | 5.92 | 7.73/8.47 | 7.82/10.15 |
| 12:30 | | 4.27/4.28 | 6.23 | 5.74 | 5.95 | 7.75/8.47 | 7.75/10.18 |
| 13:30 | | 4.27/4.28 | 6.21 | 5.77 | 5.99 | 7.77/8.48 | 7.75/10.18 |
| 14:30 | | 4.29 | 6.22 | 5.80 | 6.00 | 7.80/8.50 | 7.80/10.21 |
| 15:30 | | 4.30 | 6.23 | 5.80 | 6.04 | 7.82/8.56 | 7.80/10.21 |
| (ENDING) 16:30 | 9.22 | 4.30 | 6.23 | 5.82 | 6.05 | 7.82/8.57 | 7.80/10.24 |

| Vacuum Truck | Vacuum Pressure | RPM |
|---|---|---|
| 10:00 | 20" | 600 |
| 10:15 | 20" | 600 |
| 10:30 | 20" | 600 |
| 10:45 | 20" | 600 |
| 11:00 | 20" | 600 |
| 11:30 | 20" | 600 |
| 12:00 | 20" | 600 |
| 12:30 | 20" | 600 |
| 13:30 | 20" | 600 |
| 14:30 | 20" | 600 |
| 15:30 | 20" | 600 |
| 16:30 | 20" | 600 |

Comments: 20 gallons of product recovered and 2500 gallons of water collected. Off loaded product/water mixture at the oil water seperater on the Air Station.

# APPENDIX C

# VOC/SVOC ANALYTICAL REPORTS

# JANUARY 2008

Southeast ACCUTEST. Laboratories

IT'S ALL IN THE CHEMISTRY

02/26/08

## Technical Report for

Shaw E & I, Inc.

Camp Lejeune-Rapid Refueler

126006

Accutest Job Number: F55227

Sampling Dates: 01/20/08 - 01/21/08

Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **70**

ACCREDITED IN ACCORDANCE WITH nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

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Client Service contact: Heather Wandrey 407-425-6700

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

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Test results relate only to samples analyzed.

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# Sample Summary

Shaw E & I, Inc.

Job No: F55227

Camp Lejeune-Rapid Refueler
Project No: 126006

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| F55227-1 | 01/20/08 | 09:00 | MM | 01/22/08 | AQ | Ground Water | USTRR-MW06G |
| F55227-2 | 01/20/08 | 10:00 | MM | 01/22/08 | AQ | Ground Water | USTRR-MW23 |
| F55227-3 | 01/21/08 | 12:00 | MM | 01/22/08 | AQ | Ground Water | USTRR-MW21 |
| F55227-4 | 01/21/08 | 13:00 | MM | 01/22/08 | AQ | Ground Water | USTAS527-MW10 |
| F55227-5 | 01/21/08 | 14:00 | MM | 01/22/08 | AQ | Ground Water | USTAS511-MW01 |
| F55227-6 | 01/21/08 | 14:30 | MM | 01/22/08 | AQ | Ground Water | USTAS511-MW05 |
| F55227-7 | 01/21/08 | 00:00 | MM | 01/22/08 | AQ | Trip Blank Water | TRIP BLANK 012108 |

## Sample Results

### Report of Analysis

Accutest LabLink@73654 11:30 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW06G | | |
| **Lab Sample ID:** | F55227-1 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000647.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.5 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.5 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.95 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.95 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.5 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.5 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.95 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.95 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.1 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.95 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.95 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.95 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.95 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.95 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW06G | | |
| **Lab Sample ID:** | F55227-1 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.95 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.5 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.95 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.1 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.1 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.95 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.95 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.1 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.95 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.95 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.95 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.95 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.95 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 36% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 23% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW06G | | |
| **Lab Sample ID:** | F55227-1 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 71% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 62108 | Decane, 2,6,7-trimethyl- | 6.50 | 5.1 | ug/l | JN |
| 629 | Tetradecane | 7.44 | 5.4 | ug/l | JN |
| 80655 | Decahydro-4,4,8,9,10-pentamethylna | 7.81 | 4.8 | ug/l | JN |
| 1120 | Undecane | 7.93 | 14 | ug/l | JN |
| 2245 | Naphthalene, 1,6,7-trimethyl- | 8.61 | 5.1 | ug/l | JN |
| 3892 | Pentadecane, 2,6,10-trimethyl- | 9.46 | 14 | ug/l | JN |
| 1921 | Pentadecane, 2,6,10,14-tetramethyl | 9.93 | 27 | ug/l | JN |
| 638 | Hexadecane, 2,6,10,14-tetramethyl- | 10.78 | 15 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 90.4 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW06G | | |
| **Lab Sample ID:** | F55227-1 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | CD082635.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW06G | | |
| **Lab Sample ID:** | F55227-1 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030138.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| Run #2 [a] | UV030084.D | 1 | 01/28/08 | MM | n/a | n/a | GUV1730 |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 101% | 107% | 70-130% |
| 460-00-4 | BFB | 94% | 101% | 70-130% |

(a) Confirmation run.

ND = Not detected MDL - Method Detection Limit
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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:** | USTRR-MW06G | | |
| **Lab Sample ID:** | F55227-1 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53354.D | 1 | 02/06/08 | AMA | 01/30/08 | M:OP15126 | M:GPO3131 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | 119 | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 72% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 57% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 77% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW23 | | |
| **Lab Sample ID:** | F55227-2 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000650.D | 1 | 01/26/08 | NJ | 01/23/08 | OP23854 | SX38 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.5 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.5 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.95 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.95 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.5 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.5 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.95 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.95 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.1 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.95 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.95 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.95 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.95 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.95 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW23 | | |
| **Lab Sample ID:** | F55227-2 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.95 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.5 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.95 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.1 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.1 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.95 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 11.8 | 4.8 | 0.95 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 31.5 | 4.8 | 1.1 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.95 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.95 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.95 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.95 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.95 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 25% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 77% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW23 | | |
| **Lab Sample ID:** | F55227-2 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 73% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 69% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 108 | Benzene, 1,3,5-trimethyl- | 4.60 | 7.6 | ug/l | JN |
| 611 | Benzene, 1-ethenyl-2-methyl- | 5.05 | 11 | ug/l | JN |
| 934 | Benzene, 4-ethyl-1,2-dimethyl- | 5.16 | 8 | ug/l | JN |
| 933 | Benzene, 1-ethyl-2,3-dimethyl- | 5.54 | 10 | ug/l | JN |
| 488-23-3 | Benzene, 1,2,3,4-tetramethyl- | 5.57 | 10 | ug/l | JN |
| 95 | Benzene, 1,2,4,5-tetramethyl- | 5.78 | 41 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.87 | 17 | ug/l | JN |
| 71 | 2(1H)-Pyrimidinone, 4-amino- | 6.25 | 8.6 | ug/l | JN |
| 6069 | Cyclohexane, 1-methyl-4-(1-methyle | 6.45 | 12 | ug/l | JN |
| 31244 | 1,2,3,4,4a,5,6,8a-Octahydro-naphth | 6.75 | 12 | ug/l | JN |
| 17496 | 1H-Inden-1-one, 2,3-dihydro-2-meth | 6.87 | 12 | ug/l | JN |
| 26216 | 1H-Indole, 2,3-dihydro-1,2-dimethy | 7.05 | 17 | ug/l | JN |
| 1000191 | Acetic acid, 4a-methyldecahydronap | 7.16 | 15 | ug/l | JN |
| 581 | Naphthalene, 2,3-dimethyl- | 7.76 | 18 | ug/l | JN |
| 581 | Naphthalene, 2,6-dimethyl- | 7.80 | 7.7 | ug/l | JN |
| 528 | Benzoic acid, 2,4,5-trimethyl- | 8.40 | 8.9 | ug/l | JN |
| 1011 | Cyclohexanone, 2-cyclohexylidene- | 8.57 | 43 | ug/l | JN |
| 59796 | 3,8-Dihydroxy-3,4-dihydronaphthale | 8.80 | 8.2 | ug/l | JN |
| 100 | Benzene, 1,4-bis(1-methylethyl)- | 8.92 | 14 | ug/l | JN |
| 54966 | Pyridine, 1-acetyl-5-(3,4-dihydro- | 9.38 | 11 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 292 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW23 | | |
| **Lab Sample ID:** | F55227-2 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | CD082636.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 15 | 15 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene [b] | ND | 4.0 | 4.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | 3.0 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 1.6 | 3.0 | 1.0 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 100% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 98% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW23 | | |
| **Lab Sample ID:** | F55227-2 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030139.D | 2 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| Run #2 [a] | UV030090.D | 2 | 01/28/08 | MM | n/a | n/a | GUV1730 |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 150 | 100 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 446 | 110 | 60 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 360 | 40 | 20 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 100% | 106% | 70-130% |
| 460-00-4 | BFB | 95% | 101% | 70-130% |

(a) Confirmation run.

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

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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW23 | | |
| **Lab Sample ID:** | F55227-2 | **Date Sampled:** | 01/20/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53286.D | 1 | 02/03/08 | AMA | 01/30/08 | M:OP15126 | M:GPO3127 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 1030 | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | 357 | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 38% [b] | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 85% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 16% [b] | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 90% | | 40-140% |

(a) Sample formed emulsion on extraction. Analysis performed at Accutest Laboratories, Marlborough, MA.
(b) Outside control limits due to possible matrix interference. Confirmed by refractionation.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW21 | | |
| **Lab Sample ID:** | F55227-3 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000623.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW21 | | |
| **Lab Sample ID:** | F55227-3 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 42% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 27% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 82% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW21 | | |
| **Lab Sample ID:** | F55227-3 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 83% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 86% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW21 | | |
| **Lab Sample ID:** | F55227-3 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | CD082568.D | 1 | 01/23/08 | JM | n/a | n/a | GCD3440 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW21 | | |
| **Lab Sample ID:** | F55227-3 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030140.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| Run #2 [a] | UV030045.D | 1 | 01/25/08 | MM | n/a | n/a | GUV1728 |
| Run #3 [a] | UV030086.D | 1 | 01/28/08 | MM | n/a | n/a | GUV1730 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |
| Run #3 | 5.0 ml |

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Run# 3 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 92% | 116% | 100% | 70-130% |
| 460-00-4 | BFB | 87% | 116% | 99% | 70-130% |

(a) Confirmation run.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW21 | | |
| **Lab Sample ID:** | F55227-3 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53356.D | 1 | 02/06/08 | AMA | 01/30/08 | M:OP15126 | M:GPO3131 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 96 | 96 | ug/l | |
| | C9-C18 Aliphatics | ND | 96 | 96 | ug/l | |
| | C19-C36 Aliphatics | ND | 96 | 96 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 73% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 43% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 77% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW10 | | |
| **Lab Sample ID:** | F55227-4 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | X000651.D | 10 | 01/26/08 | NJ | 01/23/08 | OP23854 | SX38 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 240 | 96 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 48 | 9.6 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 48 | 19 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 48 | 9.6 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 48 | 19 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 240 | 96 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 96 | 19 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 48 | 9.6 | ug/l | |
| | 3&4-Methylphenol | ND | 48 | 12 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 48 | 9.6 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 240 | 96 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 240 | 96 | ug/l | |
| 108-95-2 | Phenol | ND | 48 | 19 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 48 | 9.6 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 48 | 9.6 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 48 | 13 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 48 | 11 | ug/l | |
| 120-12-7 | Anthracene | ND | 48 | 9.6 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 48 | 9.6 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 48 | 9.6 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 48 | 9.6 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 48 | 9.6 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 48 | 9.6 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 48 | 12 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 48 | 19 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 48 | 9.6 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 48 | 12 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 48 | 19 | ug/l | |
| 86-74-8 | Carbazole | ND | 48 | 9.6 | ug/l | |
| 218-01-9 | Chrysene | ND | 48 | 9.6 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 48 | 9.6 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 48 | 9.6 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW10 | | |
| **Lab Sample ID:** | F55227-4 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 48 | 9.6 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 48 | 12 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 48 | 14 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 48 | 15 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 48 | 14 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 48 | 9.6 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 48 | 9.6 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 96 | 19 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 48 | 9.6 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 48 | 9.6 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 48 | 19 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 48 | 19 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 48 | 19 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 48 | 19 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 447 | 48 | 19 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 48 | 9.6 | ug/l | |
| 86-73-7 | Fluorene | ND | 48 | 12 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 48 | 12 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 48 | 16 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 48 | 14 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 48 | 18 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 48 | 9.6 | ug/l | |
| 78-59-1 | Isophorone | ND | 48 | 9.6 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 248 | 48 | 9.6 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 96 | 19 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 96 | 19 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 96 | 19 | ug/l | |
| 91-20-3 | Naphthalene | 175 | 48 | 12 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 48 | 9.6 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 48 | 9.6 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 48 | 9.6 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 48 | 9.6 | ug/l | |
| 129-00-0 | Pyrene | ND | 48 | 9.6 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 48 | 14 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 27% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 58% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS527-MW10 | | |
| **Lab Sample ID:** | F55227-4 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 81% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 69% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 17301 | Nonane, 4-methyl- | 4.53 | 240 | ug/l | JN |
| 526 | Benzene, 1,2,3-trimethyl- | 4.77 | 620 | ug/l | JN |
| 6975 | Decane, 2-methyl- | 4.94 | 230 | ug/l | JN |
| 54833 | Heptadecane, 2,6,10,15-tetramethyl | 5.01 | 430 | ug/l | JN |
| 71186 | 1-Ethyl-2,2,6-trimethylcyclohexane | 5.09 | 320 | ug/l | JN |
| 1074 | Benzene, 1-methyl-3-propyl- | 5.12 | 380 | ug/l | JN |
| | unknown | 5.16 | 450 | ug/l | J |
| 13151 | Decane, 3-methyl- | 5.20 | 240 | ug/l | JN |
| 535 | Benzene, 1-methyl-3-(1-methylethyl | 5.30 | 720 | ug/l | JN |
| | unknown | 5.55 | 260 | ug/l | J |
| 61208 | Cyclohexane, (1-methylbutyl)- | 5.64 | 320 | ug/l | JN |
| 13150 | 2,6-Dimethyldecane | 5.72 | 210 | ug/l | JN |
| 1758 | Benzene, 2-ethyl-1,4-dimethyl- | 5.79 | 270 | ug/l | JN |
| 17301 | Undecane, 2,6-dimethyl- | 6.10 | 370 | ug/l | JN |
| 54676 | Cyclohexane, 2-butyl-1,1,3-trimeth | 6.25 | 220 | ug/l | JN |
| 5911 | Nonane, 3-methyl- | 6.51 | 390 | ug/l | JN |
| 1129 | Benzene, 1-(1-methylethenyl)-3-(1- | 7.17 | 270 | ug/l | JN |
| 581 | Naphthalene, 2,3-dimethyl- | 7.77 | 230 | ug/l | JN |
| 3891 | Dodecane, 2,6,10-trimethyl- | 7.94 | 410 | ug/l | JN |
| 1011 | Cyclohexanone, 2-cyclohexylidene- | 8.53 | 260 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 6840 | ug/l | J |

(a) Dilution required due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW10 | | |
| **Lab Sample ID:** | F55227-4 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | CD082637.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 110 | 110 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene [b] | ND | 21 | 21 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | 15.7 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 13.9 | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 107% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 100% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW10 | | |
| **Lab Sample ID:** | F55227-4 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030152.D | 100 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 7500 | 5000 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 27500 | 5500 | 3000 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 16500 | 2000 | 1000 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 106% | | 70-130% |
| 460-00-4 | BFB | 102% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW10 | | |
| **Lab Sample ID:** | F55227-4 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53357.D | 1 | 02/06/08 | AMA | 01/30/08 | M:OP15126 | M:GPO3131 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 2320 | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | 14900 | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | 95.9 | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 52% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 95% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 51% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 93% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
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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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW01 | | |
| **Lab Sample ID:** | F55227-5 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000652.D | 1 | 01/26/08 | NJ | 01/23/08 | OP23854 | SX38 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.5 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.5 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.95 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.95 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.5 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.5 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.95 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.95 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.1 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.95 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.95 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.95 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.95 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.95 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW01 | | |
| **Lab Sample ID:** | F55227-5 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.95 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.5 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.95 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 3.4 | 4.8 | 1.9 | ug/l | J |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.1 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.1 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.95 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 2.1 | 4.8 | 0.95 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 3.2 | 4.8 | 1.1 | ug/l | J |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.95 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.95 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.95 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.95 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.95 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 23% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 72% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW01 | | |
| **Lab Sample ID:** | F55227-5 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 65% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 61% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 62% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 108 | Benzene, 1,3,5-trimethyl- | 4.76 | 5.3 | ug/l | JN |
| 10544 | Cyclic octaatomic sulfur | 12.78 | 5.1 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 10.4 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW01 | | |
| **Lab Sample ID:** | F55227-5 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | CD082571.D | 1 | 01/24/08 | JM | n/a | n/a | GCD3440 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 91% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

(a) Confirmed by GC/MS
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW01 | | |
| **Lab Sample ID:** | F55227-5 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030145.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| Run #2 [a] | UV030049.D | 1 | 01/25/08 | MM | n/a | n/a | GUV1728 |
| Run #3 [a] | UV030088.D | 1 | 01/28/08 | MM | n/a | n/a | GUV1730 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |
| Run #3 | 5.0 ml |

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 92.7 | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 96.1 | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Run# 3 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 105% | 105% | 103% | 70-130% |
| 460-00-4 | BFB | 101% | 105% | 100% | 70-130% |

(a) Confirmation run.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73654 11:30 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW01 | | |
| **Lab Sample ID:** | F55227-5 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53358.D | 1 | 02/06/08 | AMA | 01/30/08 | M:OP15126 | M:GPO3131 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 180 | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | 97.0 | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 66% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 71% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 40% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 76% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73654 11:30 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW05 | | |
| **Lab Sample ID:** | F55227-6 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000653.D | 1 | 01/26/08 | NJ | 01/23/08 | OP23854 | SX38 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.5 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.5 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.95 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.95 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.5 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.5 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.95 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.95 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.1 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.95 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.95 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.95 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.95 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.95 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW05 | | |
| **Lab Sample ID:** | F55227-6 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.95 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.5 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.95 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.1 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.1 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.95 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 1.3 | 4.8 | 0.95 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 2.2 | 4.8 | 1.1 | ug/l | J |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.95 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.95 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.95 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.95 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.95 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 41% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 26% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 74% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW05 | | |
| **Lab Sample ID:** | F55227-6 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 79% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 74% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW05 | | |
| **Lab Sample ID:** | F55227-6 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | CD082572.D | 1 | 01/24/08 | JM | n/a | n/a | GCD3440 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 2.0 | 2.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | ND | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 89% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 93% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73654 11:30 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW05 | | |
| **Lab Sample ID:** | F55227-6 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030143.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| Run #2 [a] | UV030050.D | 1 | 01/25/08 | MM | n/a | n/a | GUV1728 |
| Run #3 [a] | UV030089.D | 1 | 01/28/08 | MM | n/a | n/a | GUV1730 |

| | Purge Volume |
|---|---|
| Run #1 | 5.0 ml |
| Run #2 | 5.0 ml |
| Run #3 | 5.0 ml |

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 18.6 | 20 | 10 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Run# 3 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 95% | 102% | 98% | 70-130% |
| 460-00-4 | BFB | 89% | 110% | 93% | 70-130% |

(a) Confirmation run.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW05 | | |
| **Lab Sample ID:** | F55227-6 | **Date Sampled:** | 01/21/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/22/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53292.D | 1 | 02/03/08 | AMA | 01/30/08 | M:OP15126 | M:GPO3127 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 73% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 45% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 73% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

## Misc. Forms

# Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

COC Number:
126006-RR-012108

# CHAIN-OF-CUSTODY RECORD F55227

Shaw™
Shaw E & I, Inc.

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390

Receiving LAB:Accutest

| Project Name | Project Location | | |
|---|---|---|---|
| CAMP LEJEUNE - RapidRefueler | CAMP LEJEUNE, NC | | |
| **Project Number** | **Contact** | **P.O. Number** | **Reviewed by** |
| 126006 | Mark Martin | | |
| **Client Rep** | **Project Manager** | | |
| US NAVY - LANTDIV | Joe Colella | | |

| Item No. | Sample Number | Date | Time | Comp | Grab | Sample Description | Number of Containers | Analysis Desired: VOC 602 | 625 | MADEP EPH | MADEP VPH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | USTRR-MW06G | 1/20/08 | 9:00 | | X | USTRR-MW06G | 10 | X | X | X | X |
| 2 | USTRR-MW23 | 1/20/08 | 10:00 | | X | USTRR-MW23 | 10 | X | X | X | X |
| 3 | USTRR-MW21 | 1/21/08 | 12:00 | | X | USTRR-MW21 | 10 | X | X | X | X |
| 4 | USTAS527-MW10 | 1/21/08 | 13:00 | | X | USTAS527-MW10 | 10 | X | X | X | X |
| 5 | USTAS511-MW01 | 1/21/08 | 14:00 | | X | USTAS511-MW01 | 10 | X | X | X | X |
| 6 | USTAS511-MW05 | 1/21/08 | 14:30 | | X | USTAS511-MW05 | 10 | X | X | X | X |
| 7 | TRIPBLANK 012108 | 1/21/08 | | | X | TRIP BLANK | 2 | X | | | |
| 8 | | | | | | | | | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |

| Transfer Number | Item Number | Transfers Relinquished By | Transfers Accepted By | Date | Time |
|---|---|---|---|---|---|
| 1 | 1 -- 7 | | FEDEX | 1/21/08 | 1600 |
| 2 | | FX | Jorge Cowl | 1-22-08 | 09:30 |
| 3 | | | | | |
| 4 | | | | | |

**Remarks**

14 DAY TAT

1.2 1.8 2.0

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F55227 09:30 CLIENT: SHAW PROJECT: CAMP LEJEUNE-Rapid Refinish

DATE/TIME RECEIVED: 1-22-08 # OF COOLERS RECEIVED: 3 COOLER TEMPS: 1.8 1.8 2.0

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

AIRBILL NUMBERS: 8639 0322 1909

### 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 RECEIVED IN COOLER

### TRIP BLANK INFORMATION

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

### SAMPLE INFORMATION

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

( APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

### MISC. INFORMATION

NUMBER OF ENCORES ? ϕ

NUMBER OF 5035 FIELD KITS ? ϕ

NUMBER OF LAB FILTERED METALS ? ϕ

SUMMARY OF COMMENTS: TB NOT PROVIDED

1 NP AMBER FOR SAMPLE #5 (USTAS511-MW01) HAVE TIME of 13:00

COC reads of 14:00

TECHNICIAN SIGNATURE/DATE: JC 1-22-08 TECHNICIAN SIGNATURE/DATE: ASBD 12/17/07

3.1 3

F55227: Chain of Custody
Page 2 of 2

## 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: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-MB | X000622.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



The QC reported here applies to the following samples: Method: EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 1.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 1.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 1.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 5.0 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 5.0 | 1.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.6 | ug/l | |

# Method Blank Summary

Job Number: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-MB | X000622.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



The QC reported here applies to the following samples: Method: EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 1.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 1.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 46% | 14-62% |
| 4165-62-2 | Phenol-d5 | 28% | 10-40% |

# Method Blank Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-MB | X000622.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 84% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 87% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 81% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 87% | 39-121% |

| 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: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-BS | X000621.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



The QC reported here applies to the following samples: Method: EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 95-57-8 | 2-Chlorophenol | 50 | 33.2 | 66 | 44-103 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 37.5 | 75 | 53-105 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 36.4 | 73 | 53-108 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 29.1 | 58 | 37-91 |
| 51-28-5 | 2,4-Dinitrophenol | 100 | 48.8 | 49 | 37-111 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 100 | 67.8 | 68 | 62-115 |
| 95-48-7 | 2-Methylphenol | 50 | 28.4 | 57 | 35-91 |
| | 3&4-Methylphenol | 100 | 52.0 | 52 | 32-85 |
| 88-75-5 | 2-Nitrophenol | 50 | 36.7 | 73 | 49-111 |
| 100-02-7 | 4-Nitrophenol | 100 | 20.8 | 21 | 13-55 |
| 87-86-5 | Pentachlorophenol | 100 | 59.9 | 60 | 57-118 |
| 108-95-2 | Phenol | 50 | 13.7 | 27 | 13-54 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 36.7 | 73 | 59-106 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 36.1 | 72 | 58-107 |
| 83-32-9 | Acenaphthene | 50 | 37.5 | 75 | 58-106 |
| 208-96-8 | Acenaphthylene | 50 | 37.5 | 75 | 58-105 |
| 120-12-7 | Anthracene | 50 | 38.5 | 77 | 65-108 |
| 56-55-3 | Benzo(a)anthracene | 50 | 38.4 | 77 | 63-111 |
| 50-32-8 | Benzo(a)pyrene | 50 | 38.3 | 77 | 62-106 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 37.7 | 75 | 63-109 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 41.6 | 83 | 61-111 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 39.7 | 79 | 64-111 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 38.4 | 77 | 64-107 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 37.6 | 75 | 59-114 |
| 100-51-6 | Benzyl Alcohol | 50 | 29.4 | 59 | 34-98 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 37.0 | 74 | 54-105 |
| 106-47-8 | 4-Chloroaniline | 50 | 37.4 | 75 | 53-103 |
| 86-74-8 | Carbazole | 50 | 41.3 | 83 | 66-109 |
| 218-01-9 | Chrysene | 50 | 39.0 | 78 | 64-111 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 36.2 | 72 | 48-101 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 35.7 | 71 | 51-108 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 38.3 | 77 | 43-106 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 38.1 | 76 | 61-107 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 33.1 | 66 | 41-102 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 31.6 | 63 | 38-100 |
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 31.6 | 63 | 40-100 |

# Blank Spike Summary

**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-BS | X000621.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 39.5 | 79 | 60-109 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 37.9 | 76 | 58-104 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 37.7 | 75 | 57-105 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 39.4 | 79 | 62-112 |
| 132-64-9 | Dibenzofuran | 50 | 37.4 | 75 | 61-108 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 38.7 | 77 | 62-109 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 36.9 | 74 | 60-120 |
| 84-66-2 | Diethyl phthalate | 50 | 37.1 | 74 | 62-109 |
| 131-11-3 | Dimethyl phthalate | 50 | 38.9 | 78 | 63-106 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 38.5 | 77 | 59-116 |
| 206-44-0 | Fluoranthene | 50 | 40.8 | 82 | 65-114 |
| 86-73-7 | Fluorene | 50 | 38.7 | 77 | 61-106 |
| 118-74-1 | Hexachlorobenzene | 50 | 38.3 | 77 | 62-107 |
| 87-68-3 | Hexachlorobutadiene | 50 | 34.3 | 69 | 38-107 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 28.2 | 56 | 19-84 |
| 67-72-1 | Hexachloroethane | 50 | 32.7 | 65 | 35-101 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 40.2 | 80 | 61-113 |
| 78-59-1 | Isophorone | 50 | 39.4 | 79 | 56-111 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 37.2 | 74 | 56-112 |
| 88-74-4 | 2-Nitroaniline | 50 | 42.2 | 84 | 60-109 |
| 99-09-2 | 3-Nitroaniline | 50 | 38.8 | 78 | 52-107 |
| 100-01-6 | 4-Nitroaniline | 50 | 41.4 | 83 | 59-111 |
| 91-20-3 | Naphthalene | 50 | 35.3 | 71 | 50-104 |
| 98-95-3 | Nitrobenzene | 50 | 36.5 | 73 | 52-105 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 37.4 | 75 | 51-104 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 37.1 | 74 | 57-110 |
| 85-01-8 | Phenanthrene | 50 | 39.3 | 79 | 65-108 |
| 129-00-0 | Pyrene | 50 | 38.5 | 77 | 60-113 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 34.7 | 69 | 45-104 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 36% | 14-62% |
| 4165-62-2 | Phenol-d5 | 23% | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | 33-118% |

# Blank Spike Summary



Job Number: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-BS | X000621.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



The QC reported here applies to the following samples: Method: EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 70% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | 39-121% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-MS | X000648.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| OP23854-MSD | X000649.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| F55227-1 | X000647.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



The QC reported here applies to the following samples: Method: EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Compound | F55227-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 95-57-8 | 2-Chlorophenol | ND | | 94.3 | 72.3 | 77 | 72.4 | 75 | 0 | 44-103/29 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 94.3 | 78.2 | 83 | 77.6 | 81 | 1 | 53-105/24 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 94.3 | 75.5 | 80 | 76.6 | 80 | 1 | 53-108/26 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 94.3 | 61.2 | 65 | 57.7 | 60 | 6 | 37-91/28 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 189 | 173 | 92 | 125 | 65 | 32* | 37-111/30 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 189 | 169 | 90 | 153 | 80 | 10 | 62-115/26 |
| 95-48-7 | 2-Methylphenol | ND | | 94.3 | 66.3 | 70 | 66.7 | 69 | 1 | 35-91/30 |
| | 3&4-Methylphenol | ND | | 189 | 130 | 69 | 130 | 68 | 0 | 32-85/29 |
| 88-75-5 | 2-Nitrophenol | ND | | 94.3 | 74.9 | 79 | 76.5 | 80 | 2 | 49-111/30 |
| 100-02-7 | 4-Nitrophenol | ND | | 189 | 109 | 58* | 90.1 | 47 | 19 | 13-55/31 |
| 87-86-5 | Pentachlorophenol | ND | | 189 | 183 | 97 | 175 | 91 | 4 | 57-118/26 |
| 108-95-2 | Phenol | ND | | 94.3 | 44.2 | 47 | 44.2 | 46 | 0 | 13-54/34 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 94.3 | 76.6 | 81 | 77.7 | 81 | 1 | 59-106/23 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 94.3 | 78.8 | 84 | 78.3 | 81 | 1 | 58-107/24 |
| 83-32-9 | Acenaphthene | ND | | 94.3 | 77.0 | 82 | 77.9 | 81 | 1 | 58-106/21 |
| 208-96-8 | Acenaphthylene | ND | | 94.3 | 76.0 | 81 | 75.9 | 79 | 0 | 58-105/21 |
| 120-12-7 | Anthracene | ND | | 94.3 | 78.3 | 83 | 76.9 | 80 | 2 | 65-108/19 |
| 56-55-3 | Benzo(a)anthracene | ND | | 94.3 | 79.7 | 84 | 78.2 | 81 | 2 | 63-111/19 |
| 50-32-8 | Benzo(a)pyrene | ND | | 94.3 | 76.9 | 82 | 76.6 | 80 | 0 | 62-106/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 94.3 | 75.1 | 80 | 74.4 | 77 | 1 | 63-109/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 94.3 | 84.6 | 90 | 85.1 | 89 | 1 | 61-111/21 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 94.3 | 79.4 | 84 | 79.1 | 82 | 0 | 64-111/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 94.3 | 78.5 | 83 | 76.8 | 80 | 2 | 64-107/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 94.3 | 77.2 | 82 | 77.0 | 80 | 0 | 59-114/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 94.3 | 72.0 | 76 | 72.0 | 75 | 0 | 34-98/27 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 94.3 | 75.1 | 80 | 76.1 | 79 | 1 | 54-105/24 |
| 106-47-8 | 4-Chloroaniline | ND | | 94.3 | 66.5 | 70 | 66.9 | 70 | 1 | 53-103/22 |
| 86-74-8 | Carbazole | ND | | 94.3 | 83.4 | 88 | 81.7 | 85 | 2 | 66-109/20 |
| 218-01-9 | Chrysene | ND | | 94.3 | 79.3 | 84 | 77.7 | 81 | 2 | 64-111/19 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 94.3 | 72.7 | 77 | 73.8 | 77 | 2 | 48-101/28 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 94.3 | 72.9 | 77 | 74.3 | 77 | 2 | 51-108/27 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 94.3 | 76.6 | 81 | 76.8 | 80 | 0 | 43-106/27 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 94.3 | 77.0 | 82 | 75.9 | 79 | 1 | 61-107/20 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 94.3 | 73.2 | 78 | 72.7 | 76 | 1 | 41-102/28 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 94.3 | 69.6 | 74 | 71.7 | 75 | 3 | 38-100/28 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 94.3 | 69.7 | 74 | 71.6 | 74 | 3 | 40-100/28 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-MS | X000648.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| OP23854-MSD | X000649.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| F55227-1 | X000647.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Compound | F55227-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 94.3 | 79.5 | 84 | 78.3 | 81 | 2 | 60-109/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 94.3 | 74.7 | 79 | 74.9 | 78 | 0 | 58-104/21 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 94.3 | 69.8 | 74 | 71.2 | 74 | 2 | 57-105/25 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 94.3 | 85.1 | 90 | 88.7 | 92 | 4 | 62-112/20 |
| 132-64-9 | Dibenzofuran | ND | | 94.3 | 75.3 | 80 | 75.1 | 78 | 0 | 61-108/20 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 94.3 | 78.0 | 83 | 77.5 | 81 | 1 | 62-109/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 94.3 | 75.0 | 80 | 74.7 | 78 | 0 | 60-120/24 |
| 84-66-2 | Diethyl phthalate | ND | | 94.3 | 74.9 | 79 | 73.1 | 76 | 2 | 62-109/19 |
| 131-11-3 | Dimethyl phthalate | ND | | 94.3 | 78.6 | 83 | 76.3 | 79 | 3 | 63-106/19 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 94.3 | 80.7 | 86 | 79.1 | 82 | 2 | 59-116/21 |
| 206-44-0 | Fluoranthene | ND | | 94.3 | 82.4 | 87 | 80.7 | 84 | 2 | 65-114/21 |
| 86-73-7 | Fluorene | ND | | 94.3 | 77.7 | 82 | 76.9 | 80 | 1 | 61-106/19 |
| 118-74-1 | Hexachlorobenzene | ND | | 94.3 | 75.3 | 80 | 74.7 | 78 | 1 | 62-107/20 |
| 87-68-3 | Hexachlorobutadiene | ND | | 94.3 | 72.4 | 77 | 73.8 | 77 | 2 | 38-107/30 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 94.3 | 59.2 | 63 | 60.6 | 63 | 2 | 19-84/35 |
| 67-72-1 | Hexachloroethane | ND | | 94.3 | 73.2 | 78 | 74.9 | 78 | 2 | 35-101/29 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 94.3 | 86.3 | 91 | 87.1 | 91 | 1 | 61-113/20 |
| 78-59-1 | Isophorone | ND | | 94.3 | 78.8 | 84 | 79.6 | 83 | 1 | 56-111/26 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 94.3 | 75.1 | 80 | 75.9 | 79 | 1 | 56-112/26 |
| 88-74-4 | 2-Nitroaniline | ND | | 94.3 | 85.2 | 90 | 84.7 | 88 | 1 | 60-109/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 94.3 | 68.6 | 73 | 70.0 | 73 | 2 | 52-107/21 |
| 100-01-6 | 4-Nitroaniline | ND | | 94.3 | 82.4 | 87 | 79.9 | 83 | 3 | 59-111/21 |
| 91-20-3 | Naphthalene | ND | | 94.3 | 72.7 | 77 | 73.8 | 77 | 2 | 50-104/28 |
| 98-95-3 | Nitrobenzene | ND | | 94.3 | 74.0 | 78 | 75.0 | 78 | 1 | 52-105/28 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 94.3 | 75.5 | 80 | 75.4 | 78 | 0 | 51-104/28 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 94.3 | 74.1 | 79 | 74.0 | 77 | 0 | 57-110/19 |
| 85-01-8 | Phenanthrene | ND | | 94.3 | 78.6 | 83 | 78.0 | 81 | 1 | 65-108/20 |
| 129-00-0 | Pyrene | ND | | 94.3 | 75.9 | 80 | 75.3 | 78 | 1 | 60-113/20 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 94.3 | 73.0 | 77 | 73.2 | 76 | 0 | 45-104/28 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55227-1 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 57% | 55% | 36% | 14-62% |
| 4165-62-2 | Phenol-d5 | 42%* | 41%* | 23% | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 78% | 76% | 75% | 33-118% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23854-MS | X000648.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| OP23854-MSD | X000649.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |
| F55227-1 | X000647.D | 1 | 01/25/08 | NJ | 01/23/08 | OP23854 | SX38 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Surrogate Recoveries | MS | MSD | F55227-1 | Limits |
|---|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 74% | 74% | 71% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | 72% | 69% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 75% | 72% | 71% | 39-121% |

## 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:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD3440-MB | CD082567.D | 1 | 01/23/08 | JM | n/a | n/a | GCD3440 |



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

F55227-3, F55227-5, F55227-6

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 91% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | 73-118% |

# Method Blank Summary



Job Number: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD3443-MB | CD082634.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |



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

F55227-1, F55227-2, F55227-4

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 95% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 98% | 73-118% |

# Method Blank Summary



Job Number: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1733-MB | UV030137.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55227-1, F55227-2, F55227-3, F55227-5, F55227-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 104% | 70-130% |
| 460-00-4 | BFB | 92% | 70-130% |

# Blank Spike Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD3440-BS | CD082566.D | 1 | 01/23/08 | JM | n/a | n/a | GCD3440 |



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

F55227-3, F55227-5, F55227-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 20.2 | 101 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 19.5 | 98 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 16.7 | 84 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 17.8 | 89 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.4 | 87 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 19.3 | 97 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 16.6 | 83 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.4 | 102 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 57.5 | 96 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 94% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | 73-118% |

# Blank Spike Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD3443-BS | CD082633.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |



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

F55227-1, F55227-2, F55227-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 22.7 | 114 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 21.6 | 108 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 20.8 | 104 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 20.9 | 105 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 20.9 | 105 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 21.3 | 107 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 21.4 | 107 | 72-113 |
| 108-88-3 | Toluene | 20 | 21.8 | 109 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 64.8 | 108 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 101% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 99% | 73-118% |

# Blank Spike Summary



Job Number: F55227
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1733-BS | UV030136.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55227-1, F55227-2, F55227-3, F55227-5, F55227-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | 480 | 517 | 108 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 99% | 70-130% |
| 460-00-4 | BFB | 86% | 70-130% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55227-3MS | CD082569.D | 1 | 01/24/08 | JM | n/a | n/a | GCD3440 |
| F55227-3MSD | CD082570.D | 1 | 01/24/08 | JM | n/a | n/a | GCD3440 |
| F55227-3 | CD082568.D | 1 | 01/23/08 | JM | n/a | n/a | GCD3440 |



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

F55227-3, F55227-5, F55227-6

| CAS No. | Compound | F55227-3 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | | 20 | 20.9 | 105 | 20.8 | 104 | 0 | 80-120/10 |
| 108-90-7 | Chlorobenzene | ND | | 20 | 19.5 | 98 | 19.4 | 97 | 1 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 20 | 16.6 | 83 | 16.8 | 84 | 1 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 20 | 17.8 | 89 | 17.8 | 89 | 0 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 20 | 17.2 | 86 | 17.3 | 87 | 1 | 78-117/11 |
| 100-41-4 | Ethylbenzene | ND | | 20 | 19.1 | 96 | 18.9 | 95 | 1 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 20 | 18.3 | 92 | 17.8 | 89 | 3 | 72-113/13 |
| 108-88-3 | Toluene | ND | | 20 | 20.6 | 103 | 20.4 | 102 | 1 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | ND | | 60 | 57.0 | 95 | 56.6 | 94 | 1 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55227-3 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 93% | 94% | 90% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | 96% | 94% | 73-118% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55227-2MS | CD082638.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |
| F55227-2MSD | CD082639.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |
| F55227-2 [a] | CD082636.D | 1 | 01/25/08 | JM | n/a | n/a | GCD3443 |



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

F55227-1, F55227-2, F55227-4

| CAS No. | Compound | F55227-2 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | | 20 | 20.5 | 103 | 20.5 | 103 | 0 | 80-120/10 |
| 108-90-7 | Chlorobenzene | ND | | 20 | 20.0 | 100 | 19.9 | 100 | 1 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | 14.6 | | 20 | 30.2 | 78 | 30.3 | 79 | 0 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | 3.2 | | 20 | 22.9 | 99 | 22.7 | 98 | 1 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 20 | 20.4 | 102 | 20.3 | 102 | 0 | 78-117/11 |
| 100-41-4 | Ethylbenzene | 3.0 | | 20 | 22.8 | 99 | 22.8 | 99 | 0 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 20 | 19.5 | 98 | 19.2 | 96 | 2 | 72-113/13 |
| 108-88-3 | Toluene | ND | | 20 | 20.7 | 104 | 20.6 | 103 | 0 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | 1.6 | J | 60 | 62.4 | 101 | 62.1 | 101 | 0 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55227-2 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 105% | 103% | 100% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 100% | 100% | 98% | 73-118% |

(a) All hits confirmed by GC/MS.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55227-5MS | UV030149.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| F55227-5MSD | UV030150.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| F55227-5 | UV030145.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55227-1, F55227-2, F55227-3, F55227-5, F55227-6

| CAS No. | Compound | F55227-5 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | 480 | 521 | 109 | 510 | 106 | 2 | 70-130/50 |
| | C9- C12 Aliphatics (Unadj.) | 92.7 | | 480 | 541 | 93 | 567 | 99 | 5 | 70-130/50 |
| | C9- C10 Aromatics (Unadj.) | 96.1 | | 80 | 146 | 62* | 152 | 70 | 4 | 70-130/50 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55227-5 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 98% | 102% | 105% | 70-130% |
| 460-00-4 | BFB | 94% | 95% | 101% | 70-130% |

# Duplicate Summary



**Job Number:** F55227
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55227-6DUP | UV030151.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |
| F55227-6 | UV030143.D | 1 | 01/31/08 | MM | n/a | n/a | GUV1733 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55227-1, F55227-2, F55227-3, F55227-5, F55227-6

| CAS No. | Compound | F55227-6 ug/l | Q | DUP ug/l | Q | RPD | Limits |
|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C12 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C10 Aromatics (Unadj.) | 18.6 | J | 16.6 | J | 11 | |

| CAS No. | Surrogate Recoveries | DUP | F55227-6 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 95% | 95% | 70-130% |
| 460-00-4 | BFB | 85% | 89% | 70-130% |

Misc. Forms

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## Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

# Accutest Laboratories Southeast
## Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # F55227 PAGE 1 OF 1

Accutest Quote # SKIFF#

**Client / Reporting Information**

Company Name: Accutest Southeast
Address:
City: State: Zip:
Project Contact: E-mail:
Phone#:
Sample(s) Name(s) (Printed):

**Project Information**

Project Name: F55227
Street:
City: State:
Project #:
Fax #:
Client Purchase Order #:

**Analytical Information**

MAEPH

**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 | Container Information | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|
| -1 | F55227-1 | 01/28/08 | 900 | | GW | 2 | H2SO4 | X |
| -2 | -2 | | 1000 | | | 2 | | |
| -3 | -3 | | 1200 | | | 2 | | |
| -4 | -4 | | 1300 | | | 2 | | |
| -5 | -5 | | 1400 | | | 2 | | |
| -6 | -6 | | 1430 | | | 2 | | |

**TURNAROUND TIME (Business Days)**

Approved By: / Rush Code

- [ ] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [x] OTHER 02/05/08

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)
- [ ] EDD'S

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**Comments / Remarks**

AINE
ASP

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 FELIX MONTEVERDE | 1-23-08 1700 | 2 FEDEX TRK# 781483456900 | 3 FedEx | 1/24/08 900 | 4 Well Held |
| 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: 1.2

6.1 6

**F55227: Chain of Custody**
**Page 1 of 1**
**Accutest Labs of New England, Inc.**

## GC Semi-volatiles

7

# QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F55227
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15126-MB | PO53281.D | 1 | 02/03/08 | SL | 01/30/08 | OP15126 | GPO3127 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 78% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 37%* [a] | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 82% | 40-140% |

(a) Confirmed by refractionation and reanalysis.

# Blank Spike/Blank Spike Duplicate Summary



Job Number: F55227
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15126-BS | PO53352.D | 1 | 02/06/08 | SL | 01/30/08 | OP15126 | GPO3131 |
| OP15126-BSD | PO53353.D | 1 | 02/06/08 | SL | 01/30/08 | OP15126 | GPO3131 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6



| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 800 | 791 | 99 | 754 | 94 | 5 | 40-140/25 |
| | C9-C18 Aliphatics | 300 | 191 | 64 | 196 | 65 | 3 | 40-140/25 |
| | C19-C36 Aliphatics | 400 | 334 | 84 | 344 | 86 | 3 | 40-140/25 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 82% | 83% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 85% | 78% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 47% | 41% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 90% | 79% | 40-140% |

| Sample | Compound | Col #1 | Col #2 | Breakthrough | Limit |
|---|---|---|---|---|---|
| OP15126-BS | 2-Methylnaphthalene | 33.8 | 0.12 | 0.4% | 5.0 |
| OP15126-BS | Naphthalene | 32.8 | 0.15 | 0.5% | 5.0 |
| OP15126-BSD | 2-Methylnaphthalene | 30.9 | 0.27 | 0.9% | 5.0 |
| OP15126-BSD | Naphthalene | 29.2 | 0.58 | 1.9% | 5.0 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55227
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15126-MS [a] | PO53284.D | 1 | 02/03/08 | SL | 01/30/08 | OP15126 | GPO3127 |
| OP15126-MSD [a] | PO53285.D | 1 | 02/03/08 | SL | 01/30/08 | OP15126 | GPO3127 |
| F55227-2 [a] | PO53286.D | 1 | 02/03/08 | SL | 01/30/08 | OP15126 | GPO3127 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55227-1, F55227-2, F55227-3, F55227-4, F55227-5, F55227-6

7.3

7

| CAS No. | Compound | F55227-2 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 1030 | | 1520 | 1030 | 0* [b] | 1570 | 35* [b] | 42* [b] | 50-150/30 [c] |
| | C9-C18 Aliphatics | 357 | | 571 | 361 | 1* [b] | 550 | 34* [b] | 41* [b] | 40-140/25 |
| | C19-C36 Aliphatics | ND | | 762 | 225 | 30* [b] | 376 | 49 | 50* [b] | 40-140/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55227-2 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 21%* [d] | 37%* [d] | 38%* [d] | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 84% | 78% | 85% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 9%* [d] | 16%* [d] | 16%* [d] | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 87% | 82% | 90% | 40-140% |

(a) Sample formed emulsion on extraction.
(b) Variability of recovery may be due to sample matrix/homogeneity.
(c) Advisory control limits.
(d) Outside control limits due to possible matrix interference. Confirmed by refractionation.

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

03/03/08

## Technical Report for

Shaw E & I, Inc.

Camp Lejeune-Rapid Refueler

126006

Accutest Job Number: F55338

Sampling Dates: 01/24/08 - 01/25/08

Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: **108**

ACCREDITED IN ACCORDANCE WITH nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Heather Wandrey 407-425-6700

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

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Test results relate only to samples analyzed.

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# Sample Summary

Shaw E & I, Inc.

Job No: F55338

Camp Lejeune-Rapid Refueler
Project No: 126006

| Sample Number | Collected Date | Time By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F55338-1 | 01/24/08 | 13:00 MM | 01/26/08 | AQ | Ground Water | USTAS527-MW03 |
| F55338-2 | 01/24/08 | 14:30 MM | 01/26/08 | AQ | Ground Water | USTAS527-DW02 |
| F55338-3 | 01/24/08 | 15:15 MM | 01/26/08 | AQ | Ground Water | USTAS527-MW16 |
| F55338-4 | 01/24/08 | 16:00 MM | 01/26/08 | AQ | Ground Water | USTAS511MW04 |
| F55338-5 | 01/25/08 | 11:00 MM | 01/26/08 | AQ | Ground Water | USTRRMW10 |
| F55338-6 | 01/25/08 | 12:00 MM | 01/26/08 | AQ | Ground Water | USTRRMW05 |
| F55338-7 | 01/25/08 | 13:00 MM | 01/26/08 | AQ | Ground Water | USTRRMW11 |
| F55338-8 | 01/25/08 | 14:15 MM | 01/26/08 | AQ | Ground Water | USTRRMW14 |
| F55338-9 | 01/25/08 | 15:30 MM | 01/26/08 | AQ | Ground Water | USTRRMW15 |
| F55338-10 | 01/25/08 | 15:30 MM | 01/26/08 | AQ | Ground Water | USTRRMW15D |
| F55338-11 | 01/25/08 | 00:00 MM | 01/26/08 | AQ | Trip Blank Water | TRIP BLANK 012508 |

## Sample Results

### Report of Analysis

Accutest LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW03 | | |
| **Lab Sample ID:** | F55338-1 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000711.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 0.97 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 0.97 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 0.97 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.9 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.9 | 0.97 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 0.97 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW03 | | |
| **Lab Sample ID:** | F55338-1 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 1.6 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 0.97 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 0.97 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 20% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS527-MW03 | | |
| **Lab Sample ID:** | F55338-1 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 71% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 10544 | Cyclic octaatomic sulfur | 12.73 | 45 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 45 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | USTAS527-MW03 | | |
| Lab Sample ID: | F55338-1 | Date Sampled: | 01/24/08 |
| Matrix: | AQ - Ground Water | Date Received: | 01/26/08 |
| Method: | EPA 602 | Percent Solids: | n/a |
| Project: | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033203.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 96% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW03 | | |
| **Lab Sample ID:** | F55338-1 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030212.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 120 | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 72.4 | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 101% | | 70-130% |
| 460-00-4 | BFB | 101% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW03 | | |
| **Lab Sample ID:** | F55338-1 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53429.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 74% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 51% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 73% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW02 | | |
| **Lab Sample ID:** | F55338-2 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000712.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | R12496.D | 2 | 01/31/08 | NJ | 01/29/08 | OP23917 | SR574 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | 1030 ml | 1.0 ml |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 0.97 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 0.97 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 0.97 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.9 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.9 | 0.97 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 0.97 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | USTAS527-DW02 | | |
| Lab Sample ID: | F55338-2 | Date Sampled: | 01/24/08 |
| Matrix: | AQ - Ground Water | Date Received: | 01/26/08 |
| Method: | EPA 625 EPA 625 | Percent Solids: | n/a |
| Project: | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 1.6 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 25.8 | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 131 [a] | 9.7 | 2.3 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 0.97 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 0.97 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 33% | 29% | 14-62% |
| 4165-62-2 | Phenol-d5 | 22% | 19% | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 81% | 85% | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS527-DW02 | | |
| **Lab Sample ID:** | F55338-2 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 70% | 64% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | 52% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 71% | 75% | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 100 | Ethylbenzene | 3.80 | 44 | ug/l | JN |
| 526 | Benzene, 1,2,3-trimethyl- | 4.74 | 160 | ug/l | JN |
| 108 | Benzene, 1,3,5-trimethyl- | 4.92 | 58 | ug/l | JN |
| 496 | Indane | 5.01 | 50 | ug/l | JN |
| 105 | Benzene, 1,4-diethyl- | 5.12 | 45 | ug/l | JN |
| 1758 | Benzene, 2-ethyl-1,4-dimethyl- | 5.25 | 42 | ug/l | JN |
| 767 | Benzene, (1-methyl-1-propenyl)-, ( | 5.75 | 85 | ug/l | JN |
| 140 | Cyclopentanepropanoic acid | 5.79 | 42 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.83 | 47 | ug/l | JN |
| 632 | Benzoic acid, 2,6-dimethyl- | 7.32 | 57 | ug/l | JN |
| 529 | 1(2H)-Naphthalenone, 3,4-dihydro- | 7.38 | 77 | ug/l | JN |
| 581 | Naphthalene, 2,3-dimethyl- | 7.72 | 130 | ug/l | JN |
| 6331 | Acetic acid, (2,4-xylyl)- | 7.84 | 82 | ug/l | JN |
| 36436 | 2'-Hydroxy-4',5'-dimethylacetophen | 7.96 | 130 | ug/l | JN |
| 1011 | Cyclohexanone, 2-cyclohexylidene- | 8.61 | 360 | ug/l | JN |
| 1199 | .alpha.-Methylcinnamic acid | 8.63 | 56 | ug/l | JN |
| 39891 | 3-Benzofurancarboxylic acid, 2,3-d | 8.66 | 62 | ug/l | JN |
| 100 | Benzene, 1,4-bis(1-methylethyl)- | 8.95 | 80 | ug/l | JN |
| 19851 | 1,3-Benzenedimethanamine, N,N,N',N | 8.99 | 100 | ug/l | JN |
| 54966 | Pyridine, 1-acetyl-5-(3,4-dihydro- | 9.40 | 150 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 1857 | ug/l | J |

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW02 | | |
| **Lab Sample ID:** | F55338-2 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033204.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 8.4 | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 48 | 48 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | 93.8 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | 1.1 | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 59.2 | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 116% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW02 | | |
| **Lab Sample ID:** | F55338-2 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030244.D | 10 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 750 | 500 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 2100 | 550 | 300 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 1590 | 200 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 106% | | 70-130% |
| 460-00-4 | BFB | 101% | | 70-130% |

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

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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW02 | | |
| **Lab Sample ID:** | F55338-2 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53430.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 603 | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | 113 | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 72% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 50% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 68% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | USTAS527-MW16 | | |
| Lab Sample ID: | F55338-3 | Date Sampled: | 01/24/08 |
| Matrix: | AQ - Ground Water | Date Received: | 01/26/08 |
| Method: | EPA 625 EPA 625 | Percent Solids: | n/a |
| Project: | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000713.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW16 | | |
| **Lab Sample ID:** | F55338-3 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 7.5 | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 1.8 | 4.8 | 0.96 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 8.8 | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 24% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 81% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS527-MW16 | | |
| **Lab Sample ID:** | F55338-3 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 81% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 80% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 526 | Benzene, 1,2,3-trimethyl- | 4.73 | 13 | ug/l | JN |
| 99 | Benzene, 1-methyl-4-(1-methylethyl | 5.26 | 6.5 | ug/l | JN |
| 527 | Benzene, 1,2,3,5-tetramethyl- | 5.75 | 6.4 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.83 | 5 | ug/l | JN |
| 1120 | 1-Tetradecene | 11.30 | 72 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 102.9 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | USTAS527-MW16 | | |
| Lab Sample ID: | F55338-3 | Date Sampled: | 01/24/08 |
| Matrix: | AQ - Ground Water | Date Received: | 01/26/08 |
| Method: | EPA 602 | Percent Solids: | n/a |
| Project: | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033205.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | 3.1 | 1.0 | 0.50 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene [b] | ND | 2.0 | 2.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene [b] | ND | 2.0 | 2.0 | ug/l | |
| 100-41-4 | Ethylbenzene | 4.2 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 4.7 | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 101% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 96% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW16 | | |
| **Lab Sample ID:** | F55338-3 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030214.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 196 | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 136 | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 99% | | 70-130% |
| 460-00-4 | BFB | 95% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-MW16 | | |
| **Lab Sample ID:** | F55338-3 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53431.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 65% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 48% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 65% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511MW04 | | |
| **Lab Sample ID:** | F55338-4 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000714.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511MW04 | | |
| **Lab Sample ID:** | F55338-4 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 3.0 | 4.8 | 1.9 | ug/l | J |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 1.1 | 4.8 | 0.96 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 5.4 | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 22% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511MW04 | | |
| **Lab Sample ID:** | F55338-4 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 75% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 74% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 526 | Benzene, 1,2,3-trimethyl- | 4.73 | 5.4 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 5.4 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511MW04 | | |
| **Lab Sample ID:** | F55338-4 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033244.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | 1.4 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 1.0 | 3.0 | 1.0 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511MW04 | | |
| **Lab Sample ID:** | F55338-4 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030215.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 26.1 | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 94% | | 70-130% |
| 460-00-4 | BFB | 91% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511MW04 | | |
| **Lab Sample ID:** | F55338-4 | **Date Sampled:** | 01/24/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18357J.D | 1 | 02/14/08 | AMA | 02/12/08 | M:OP15199 | M:GBC1025 |
| Run #2 [b] | PO53432.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | 1050 ml | 2.0 ml |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 66% | 39% [c] | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 71% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 31% [c] | 17% [c] | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 65% | 71% | 40-140% |

(a) Sample re-extracted beyond recommended holding time. Analysis performed at Accutest Laboratories, Marlborough, MA.
(b) Sample formed emulsion on extraction. Analysis performed at Accutest Laboratories, Marlborough, MA.
(c) Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW10 | | |
| **Lab Sample ID:** | F55338-5 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000715.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | R12497.D | 4 | 01/31/08 | NJ | 01/29/08 | OP23917 | SR574 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | 1030 ml | 1.0 ml |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | 15.6 | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 0.97 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 0.97 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 0.97 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.9 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.9 | 0.97 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 0.97 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW10 | | |
| **Lab Sample ID:** | F55338-5 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 1.6 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 132-64-9 | Dibenzofuran | 2.3 | 4.9 | 0.97 | ug/l | J |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 167 [a] | 19 | 3.9 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 346 [a] | 19 | 4.7 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 0.97 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 0.97 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | 32% | 14-62% |
| 4165-62-2 | Phenol-d5 | 25% | 19% | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 76% | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRRMW10 | | |
| **Lab Sample ID:** | F55338-5 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 77% | 68% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | 72% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 83% | 79% | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 100 | Ethylbenzene | 3.80 | 47 | ug/l | JN |
| 108 | Benzene, 1,3-dimethyl- | 3.87 | 12 | ug/l | JN |
| 98 | Benzene, (1-methylethyl)- | 4.28 | 13 | ug/l | JN |
| 103 | Benzene, propyl- | 4.47 | 24 | ug/l | JN |
| 526 | Benzene, 1,2,3-trimethyl- | 4.57 | 7 | ug/l | JN |
| 95 | Benzene, 1,2,4-trimethyl- | 4.73 | 15 | ug/l | JN |
| 496 | Indane | 5.01 | 39 | ug/l | JN |
| 141 | Benzene, 1,3-diethyl- | 5.08 | 21 | ug/l | JN |
| 62690 | Naphthalene, 1,2,3,5,8,8a-hexahydr | 5.12 | 23 | ug/l | JN |
| 135 | Benzene, 1,2-diethyl- | 5.16 | 13 | ug/l | JN |
| 4920 | Benzene, 1-ethyl-3-(1-methylethyl) | 5.41 | 10 | ug/l | JN |
| 95 | Benzene, 1,2,4,5-tetramethyl- | 5.75 | 13 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.83 | 7.5 | ug/l | JN |
| 97 | Phenol, 2-methoxy-4-(1-propenyl)- | 7.41 | 11 | ug/l | JN |
| 582 | Naphthalene, 2,7-dimethyl- | 7.60 | 22 | ug/l | JN |
| 575 | Naphthalene, 1,7-dimethyl- | 7.72 | 33 | ug/l | JN |
| 581 | Naphthalene, 2,6-dimethyl- | 7.75 | 19 | ug/l | JN |
| 101 | Diphenylmethane | 7.79 | 7.7 | ug/l | JN |
| 581 | Naphthalene, 2,3-dimethyl- | 7.88 | 12 | ug/l | JN |
| 10544 | Cyclic octaatomic sulfur | 12.73 | 27 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 376.2 | ug/l | J |

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW10 | | |
| **Lab Sample ID:** | F55338-5 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033211.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 16.4 | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 30 | 30 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene [b] | ND | 5.0 | 5.0 | ug/l | |
| 100-41-4 | Ethylbenzene | 83.4 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 2.3 | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | 1.1 | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 23.0 | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 112% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW10 | | |
| **Lab Sample ID:** | F55338-5 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030245.D | 2 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | UV030216.D | 20 | 02/06/08 | MM | n/a | n/a | GUV1736 |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 150 | 100 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 1160 | 110 | 60 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 689 [a] | 400 | 200 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 102% | 96% | 70-130% |
| 460-00-4 | BFB | 97% | 92% | 70-130% |

(a) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW10 | | |
| **Lab Sample ID:** | F55338-5 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53433.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 822 | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | 132 | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 69% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 53% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 64% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW05 | | |
| **Lab Sample ID:** | F55338-6 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000716.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 9.8 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 0.98 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 0.98 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 9.8 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.8 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 0.98 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 0.98 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 9.8 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 9.8 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 0.98 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 0.98 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.98 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.98 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.98 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 0.98 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.98 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.9 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.9 | 0.98 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.98 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.98 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 0.98 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW05 | | |
| **Lab Sample ID:** | F55338-6 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.98 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 1.6 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 0.98 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 0.98 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.8 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 0.98 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.98 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.98 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 0.98 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.98 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 7.3 | 4.9 | 0.98 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.8 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.8 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.8 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | 30.6 | 4.9 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.98 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 0.98 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 0.98 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.98 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.98 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 36% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 22% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 76% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRRMW05 | | |
| **Lab Sample ID:** | F55338-6 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 73% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 76% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 873 | Benzene, cyclopropyl- | 5.01 | 9.9 | ug/l | JN |
| 934 | Benzene, 4-ethyl-1,2-dimethyl- | 5.50 | 5.7 | ug/l | JN |
| 535 | Benzene, 1-methyl-3-(1-methylethyl | 5.75 | 18 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.83 | 9.5 | ug/l | JN |
| 622 | p-Tolylacetic acid | 7.01 | 23 | ug/l | JN |
| 610 | Benzoic acid, 2,5-dimethyl- | 7.05 | 7.8 | ug/l | JN |
| 632 | Benzoic acid, 2,6-dimethyl- | 7.21 | 7.5 | ug/l | JN |
| 480 | Benzoic acid, 2,4,6-trimethyl- | 7.53 | 5.8 | ug/l | JN |
| 6331 | Acetic acid, (2,4-xylyl)- | 7.72 | 13 | ug/l | JN |
| 53155 | Benzeneacetaldehyde, 2-methoxy-.al | 8.46 | 26 | ug/l | JN |
| 22320 | 2-Indolizinemethanol | 8.84 | 12 | ug/l | JN |
| 70547 | 2,6-Dimethyl-4-hydroxybenzaldehyde | 8.88 | 8.7 | ug/l | JN |
| 2138 | 4-Cyclohexylresorcinol | 9.29 | 8.8 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 155.7 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW05 | | |
| **Lab Sample ID:** | F55338-6 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033210.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 0.56 | 1.0 | 0.50 | ug/l | J |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 5.0 | 5.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 1.0 | ug/l | |
| 100-41-4 | Ethylbenzene | 2.5 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | ND | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 104% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 98% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW05 | | |
| **Lab Sample ID:** | F55338-6 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030217.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 477 | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 320 | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 101% | | 70-130% |
| 460-00-4 | BFB | 102% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW05 | | |
| **Lab Sample ID:** | F55338-6 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53435.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 173 | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | 205 | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 72% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 45% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 66% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW11 | | |
| **Lab Sample ID:** | F55338-7 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000717.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW11 | | |
| **Lab Sample ID:** | F55338-7 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 1.4 | 4.8 | 0.96 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 4.7 | 4.8 | 1.2 | ug/l | J |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 39% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 24% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 76% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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: | USTRRMW11 | | |
| Lab Sample ID: | F55338-7 | Date Sampled: | 01/25/08 |
| Matrix: | AQ - Ground Water | Date Received: | 01/26/08 |
| Method: | EPA 625 EPA 625 | Percent Solids: | n/a |
| Project: | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 79% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 82% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 1120 | 1-Tetradecene | 11.30 | 100 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 100 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW11 | | |
| **Lab Sample ID:** | F55338-7 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033188.D | 1 | 01/29/08 | NJ | n/a | n/a | GQQ1279 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | 0.94 | 1.0 | 0.50 | ug/l | J |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | ND | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 91% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 96% | | 73-118% |

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW11 | | |
| **Lab Sample ID:** | F55338-7 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030218.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 16.8 | 20 | 10 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 93% | | 70-130% |
| 460-00-4 | BFB | 88% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW11 | | |
| **Lab Sample ID:** | F55338-7 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53436.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 70% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 56% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 66% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW14 | | |
| **Lab Sample ID:** | F55338-8 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000718.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW14 | | |
| **Lab Sample ID:** | F55338-8 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 1.1 | 4.8 | 0.96 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 3.8 | 4.8 | 1.2 | ug/l | J |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 21% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRRMW14 | | |
| **Lab Sample ID:** | F55338-8 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 74% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 77% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 1454 | 1-Heptadecanol | 11.30 | 5 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 5 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW14 | | |
| **Lab Sample ID:** | F55338-8 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033189.D | 1 | 01/29/08 | NJ | n/a | n/a | GQQ1279 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | 0.76 | 1.0 | 0.50 | ug/l | J |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | ND | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 90% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | USTRRMW14 | | |
| Lab Sample ID: | F55338-8 | Date Sampled: | 01/25/08 |
| Matrix: | AQ - Ground Water | Date Received: | 01/26/08 |
| Method: | MADEP VPH | Percent Solids: | n/a |
| Project: | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030221.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 92% | | 70-130% |
| 460-00-4 | BFB | 94% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW14 | | |
| **Lab Sample ID:** | F55338-8 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53437.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 69% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 45% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 70% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15 | | |
| **Lab Sample ID:** | F55338-9 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000721.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15 | | |
| **Lab Sample ID:** | F55338-9 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 21% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 71% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRRMW15 | | |
| **Lab Sample ID:** | F55338-9 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 74% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 78% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15 | | |
| **Lab Sample ID:** | F55338-9 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033190.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1279 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 85% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRRMW15 | | |
| **Lab Sample ID:** | F55338-9 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030222.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 90% | | 70-130% |
| 460-00-4 | BFB | 96% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15 | | |
| **Lab Sample ID:** | F55338-9 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53438.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 75% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 41% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 77% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15D | | |
| **Lab Sample ID:** | F55338-10 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000722.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 0.97 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 0.97 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 0.97 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.9 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.9 | 0.97 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 0.97 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15D | | |
| **Lab Sample ID:** | F55338-10 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 1.6 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 0.97 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 0.97 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 38% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 24% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 72% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRRMW15D | | |
| **Lab Sample ID:** | F55338-10 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 73% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 77% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15D | | |
| **Lab Sample ID:** | F55338-10 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033191.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1279 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 97% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 101% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15D | | |
| **Lab Sample ID:** | F55338-10 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030223.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 93% | | 70-130% |
| 460-00-4 | BFB | 92% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRRMW15D | | |
| **Lab Sample ID:** | F55338-10 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/26/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | PO53439.D | 1 | 02/08/08 | AMA | 02/04/08 | M:OP15139 | M:GPO3135 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 72% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 69% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 42% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 69% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73815 11:41 03-Mar-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK 012508 | | |
| **Lab Sample ID:** | F55338-11 | **Date Sampled:** | 01/25/08 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 01/26/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033192.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1279 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 72% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 88% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

## Misc. Forms

# Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

COC Number:
126006-RR-012508

Shaw
Shaw Environmental & Infrastructure, Inc.

# CHAIN-OF-CUSTODY RECORD

F55338

**Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390**

Receiving LAB:Accutest

| Project Name | Project Location | | |
|---|---|---|---|
| CAMP LEJEUNE - Rapid Refueler | CAMP LEJEUNE, NC | | |
| **Project Number** | **Contact** | **P.O. Number** | **Reviewed by** |
| 126006 | Mark Martin | | |
| **Client Rep** | **Project Manager** | | |
| US NAVY - LANTDIV | Joe Colella | | |

| Item No. | Sample Number | Date | Time | Comp | Grab | Sample Description | Number of Containers | VOC 602 | 625 | MADEP EPH | MADEP VPH | Analysis Desired |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | USTAS527-MW03 | 1/24/08 | 13:00 | | X | USTAS527-MW03 | 10 | X | X | X | X | |
| 2 | USTAS527-DW02 | 1/24/08 | 14:30 | | X | USTAS527-DW02 | 10 | X | X | X | X | |
| 3 | USTAS527-MW16 | 1/24/08 | 15:15 | | X | USTAS527-MW16 | 10 | X | X | X | X | |
| 4 | USTAS511MW04 | 1/24/08 | 16:00 | | X | USTAS511MW04 | 10 | X | X | X | X | |
| 5 | USTAS511MW10 | 1/25/08 | 11:00 | | X | USTAS511MW10 | 10 | X | X | X | X | |
| 6 | USTAS511MW05 | 1/25/08 | 12:00 | | X | USTAS511MW05 | 10 | X | X | X | X | |
| 7 | USTAS511MW11 | 1/25/08 | 13:00 | | X | USTAS511MW11 | 10 | X | X | X | X | |
| 8 | USTAS511MW14 | 1/25/08 | 14:15 | | X | USTAS511MW14 | 10 | X | X | X | X | |
| 9 | USTAS511MW15 | 1/25/08 | 15:30 | | X | USTAS511MW15 | 10 | X | X | X | X | |
| 10 | USTAS511MW15D | 1/25/08 | 15:30 | | X | USTAS511MW15Dup | 10 | X | X | X | X | |
| 11 | Trip Blank 012508 | 1/25/08 | | | X | Trip Blank | 2 | X | | | | |

| Transfer Number | Item Number | Transfers Relinquished By | Transfers Accepted By | Date | Time | Remarks |
|---|---|---|---|---|---|---|
| 1 | 1 -- 11 | | FedEx | 1/25/07 | 16:00 | **14 Day TAT** |
| 2 | | FX | Jorge Borrel | 1-26-08 | 12:00 | FedEx 8639 0321 7402, 8639 0322 1920, 8639 0322 1931, 8639 0322 1942 |
| 3 | | | | | | |

1.0 1.2 1.8 2.4

F55338: Chain of Custody
Page 1 of 2


ACCUTEST.
F55338

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F55338 CLIENT: SHAW PROJECT: CAMP LEJEUNE - RAPID

DATE/TIME RECEIVED: 1-26-08 12:00 # OF COOLERS RECEIVED: 4 COOLER TEMPS: 1.0 1.2 1.8 2.4

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

AIRBILL NUMBERS: 8639-0322-1931

### 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 RECEIVED IN COOLER

### 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

### SAMPLE INFORMATION

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

( APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

### MISC. INFORMATION

NUMBER OF ENCORES ? ϕ

NUMBER OF 5035 FIELD KITS ? ϕ

NUMBER OF LAB FILTERED METALS ? ϕ

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE: JC 1-26-08 TECHNICIAN SIGNATURE/DATE: ASBD 12/17/07

F55338: Chain of Custody
Page 2 of 2

## 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: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MB | X000700.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 1.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 1.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 1.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 5.0 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 5.0 | 1.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.6 | ug/l | |

# Method Blank Summary

Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MB | X000700.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 1.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 1.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | 14-62% |
| 4165-62-2 | Phenol-d5 | 22% | 10-40% |

# Method Blank Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MB | X000700.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 64% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 69% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 64% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

# Method Blank Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MB | R12495.D | 1 | 01/31/08 | NJ | 01/29/08 | OP23917 | SR574 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 1.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 1.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 1.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 5.0 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 5.0 | 1.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.6 | ug/l | |

# Method Blank Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MB | R12495.D | 1 | 01/31/08 | NJ | 01/29/08 | OP23917 | SR574 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 1.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 1.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 29% | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | 10-40% |

# Method Blank Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MB | R12495.D | 1 | 01/31/08 | NJ | 01/29/08 | OP23917 | SR574 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 67% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 63% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 74% | 39-121% |

| 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: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-BS | X000699.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 100 | 14.0 | 14 | 10-50 |
| 95-57-8 | 2-Chlorophenol | 50 | 32.3 | 65 | 44-103 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 36.0 | 72 | 53-105 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 36.0 | 72 | 53-108 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 29.7 | 59 | 37-91 |
| 51-28-5 | 2,4-Dinitrophenol | 100 | 76.5 | 77 | 37-111 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 100 | 82.7 | 83 | 62-115 |
| 95-48-7 | 2-Methylphenol | 50 | 27.9 | 56 | 35-91 |
| | 3&4-Methylphenol | 100 | 51.5 | 52 | 32-85 |
| 88-75-5 | 2-Nitrophenol | 50 | 36.4 | 73 | 49-111 |
| 100-02-7 | 4-Nitrophenol | 100 | 28.9 | 29 | 13-55 |
| 87-86-5 | Pentachlorophenol | 100 | 75.8 | 76 | 57-118 |
| 108-95-2 | Phenol | 50 | 14.0 | 28 | 13-54 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 36.7 | 73 | 59-106 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 36.6 | 73 | 58-107 |
| 83-32-9 | Acenaphthene | 50 | 37.4 | 75 | 58-106 |
| 208-96-8 | Acenaphthylene | 50 | 35.9 | 72 | 58-105 |
| 120-12-7 | Anthracene | 50 | 38.1 | 76 | 65-108 |
| 56-55-3 | Benzo(a)anthracene | 50 | 37.9 | 76 | 63-111 |
| 50-32-8 | Benzo(a)pyrene | 50 | 37.5 | 75 | 62-106 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 40.4 | 81 | 63-109 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 37.1 | 74 | 61-111 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 37.0 | 74 | 64-111 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 38.6 | 77 | 64-107 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 39.1 | 78 | 59-114 |
| 100-51-6 | Benzyl Alcohol | 50 | 27.9 | 56 | 34-98 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 35.5 | 71 | 54-105 |
| 106-47-8 | 4-Chloroaniline | 50 | 35.7 | 71 | 53-103 |
| 86-74-8 | Carbazole | 50 | 37.5 | 75 | 66-109 |
| 218-01-9 | Chrysene | 50 | 38.0 | 76 | 64-111 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 36.5 | 73 | 48-101 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 36.0 | 72 | 51-108 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 39.7 | 79 | 43-106 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 37.2 | 74 | 61-107 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 27.8 | 56 | 41-102 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 25.9 | 52 | 38-100 |

# Blank Spike Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-BS | X000699.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 26.7 | 53 | 40-100 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 37.7 | 75 | 60-109 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 36.1 | 72 | 58-104 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 34.7 | 69 | 57-105 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 38.0 | 76 | 62-112 |
| 132-64-9 | Dibenzofuran | 50 | 35.5 | 71 | 61-108 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 38.4 | 77 | 62-109 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 40.6 | 81 | 60-120 |
| 84-66-2 | Diethyl phthalate | 50 | 36.1 | 72 | 62-109 |
| 131-11-3 | Dimethyl phthalate | 50 | 38.4 | 77 | 63-106 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 39.5 | 79 | 59-116 |
| 206-44-0 | Fluoranthene | 50 | 38.4 | 77 | 65-114 |
| 86-73-7 | Fluorene | 50 | 36.8 | 74 | 61-106 |
| 118-74-1 | Hexachlorobenzene | 50 | 37.2 | 74 | 62-107 |
| 87-68-3 | Hexachlorobutadiene | 50 | 28.3 | 57 | 38-107 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 26.6 | 53 | 19-84 |
| 67-72-1 | Hexachloroethane | 50 | 25.8 | 52 | 35-101 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 38.1 | 76 | 61-113 |
| 78-59-1 | Isophorone | 50 | 39.3 | 79 | 56-111 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 34.4 | 69 | 56-112 |
| 88-74-4 | 2-Nitroaniline | 50 | 41.3 | 83 | 60-109 |
| 99-09-2 | 3-Nitroaniline | 50 | 37.9 | 76 | 52-107 |
| 100-01-6 | 4-Nitroaniline | 50 | 37.1 | 74 | 59-111 |
| 91-20-3 | Naphthalene | 50 | 32.3 | 65 | 50-104 |
| 98-95-3 | Nitrobenzene | 50 | 37.0 | 74 | 52-105 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 36.6 | 73 | 51-104 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 36.6 | 73 | 57-110 |
| 85-01-8 | Phenanthrene | 50 | 38.5 | 77 | 65-108 |
| 129-00-0 | Pyrene | 50 | 38.9 | 78 | 60-113 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 29.9 | 60 | 45-104 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 37% | 14-62% |
| 4165-62-2 | Phenol-d5 | 24% | 10-40% |

# Blank Spike Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-BS | X000699.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 72% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 70% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | 39-121% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MS | X000719.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| OP23917-MSD | X000720.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| F55338-8 | X000718.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | F55338-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | | 192 | 84.0 | 44 | 78.4 | 41 | 7 | 10-50/40 |
| 95-57-8 | 2-Chlorophenol | ND | | 96.2 | 73.0 | 76 | 67.0 | 70 | 9 | 44-103/29 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 96.2 | 78.7 | 82 | 74.7 | 78 | 5 | 53-105/24 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 96.2 | 77.1 | 80 | 72.2 | 75 | 7 | 53-108/26 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 96.2 | 61.5 | 64 | 59.1 | 61 | 4 | 37-91/28 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 192 | 161 | 84 | 158 | 82 | 2 | 37-111/30 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 192 | 168 | 87 | 171 | 89 | 2 | 62-115/26 |
| 95-48-7 | 2-Methylphenol | ND | | 96.2 | 68.7 | 71 | 61.3 | 64 | 11 | 35-91/30 |
| | 3&4-Methylphenol | ND | | 192 | 132 | 69 | 119 | 62 | 10 | 32-85/29 |
| 88-75-5 | 2-Nitrophenol | ND | | 96.2 | 77.0 | 80 | 73.7 | 77 | 4 | 49-111/30 |
| 100-02-7 | 4-Nitrophenol | ND | | 192 | 103 | 54 | 98.5 | 51 | 4 | 13-55/31 |
| 87-86-5 | Pentachlorophenol | ND | | 192 | 164 | 85 | 162 | 84 | 1 | 57-118/26 |
| 108-95-2 | Phenol | ND | | 96.2 | 46.0 | 48 | 40.9 | 43 | 12 | 13-54/34 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 96.2 | 80.1 | 83 | 75.8 | 79 | 6 | 59-106/23 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 96.2 | 80.6 | 84 | 75.9 | 79 | 6 | 58-107/24 |
| 83-32-9 | Acenaphthene | ND | | 96.2 | 80.6 | 84 | 77.9 | 81 | 3 | 58-106/21 |
| 208-96-8 | Acenaphthylene | ND | | 96.2 | 78.1 | 81 | 74.3 | 77 | 5 | 58-105/21 |
| 120-12-7 | Anthracene | ND | | 96.2 | 79.6 | 83 | 80.2 | 83 | 1 | 65-108/19 |
| 56-55-3 | Benzo(a)anthracene | ND | | 96.2 | 81.2 | 84 | 82.3 | 86 | 1 | 63-111/19 |
| 50-32-8 | Benzo(a)pyrene | ND | | 96.2 | 79.9 | 83 | 80.2 | 83 | 0 | 62-106/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 96.2 | 80.6 | 84 | 81.4 | 85 | 1 | 63-109/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 96.2 | 78.8 | 82 | 80.8 | 84 | 3 | 61-111/21 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 96.2 | 87.5 | 91 | 87.3 | 91 | 0 | 64-111/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 96.2 | 81.3 | 85 | 82.9 | 86 | 2 | 64-107/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 96.2 | 84.8 | 88 | 85.7 | 89 | 1 | 59-114/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 96.2 | 71.2 | 74 | 64.4 | 67 | 10 | 34-98/27 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 96.2 | 79.2 | 82 | 75.8 | 79 | 4 | 54-105/24 |
| 106-47-8 | 4-Chloroaniline | ND | | 96.2 | 72.0 | 75 | 68.6 | 71 | 5 | 53-103/22 |
| 86-74-8 | Carbazole | ND | | 96.2 | 81.0 | 84 | 80.6 | 84 | 0 | 66-109/20 |
| 218-01-9 | Chrysene | ND | | 96.2 | 82.9 | 86 | 82.5 | 86 | 0 | 64-111/19 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 96.2 | 79.9 | 83 | 75.1 | 78 | 6 | 48-101/28 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 96.2 | 77.4 | 80 | 73.6 | 77 | 5 | 51-108/27 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 96.2 | 89.1 | 93 | 83.1 | 86 | 7 | 43-106/27 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 96.2 | 80.4 | 84 | 78.6 | 82 | 2 | 61-107/20 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 96.2 | 74.2 | 77 | 68.5 | 71 | 8 | 41-102/28 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 96.2 | 72.7 | 76 | 69.2 | 72 | 5 | 38-100/28 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MS | X000719.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| OP23917-MSD | X000720.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| F55338-8 | X000718.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



The QC reported here applies to the following samples: Method: EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | F55338-8 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 96.2 | 72.1 | 75 | 68.6 | 71 | 5 | 40-100/28 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 96.2 | 80.5 | 84 | 78.2 | 81 | 3 | 60-109/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 96.2 | 76.1 | 79 | 73.9 | 77 | 3 | 58-104/21 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 96.2 | 62.1 | 65 | 61.1 | 64 | 2 | 57-105/25 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 96.2 | 80.0 | 83 | 81.8 | 85 | 2 | 62-112/20 |
| 132-64-9 | Dibenzofuran | ND | | 96.2 | 77.8 | 81 | 75.3 | 78 | 3 | 61-108/20 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 96.2 | 81.6 | 85 | 81.4 | 85 | 0 | 62-109/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 96.2 | 85.8 | 89 | 86.3 | 90 | 1 | 60-120/24 |
| 84-66-2 | Diethyl phthalate | ND | | 96.2 | 78.2 | 81 | 77.1 | 80 | 1 | 62-109/19 |
| 131-11-3 | Dimethyl phthalate | ND | | 96.2 | 82.3 | 86 | 80.5 | 84 | 2 | 63-106/19 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 96.2 | 85.9 | 89 | 88.0 | 92 | 2 | 59-116/21 |
| 206-44-0 | Fluoranthene | ND | | 96.2 | 80.5 | 84 | 79.9 | 83 | 1 | 65-114/21 |
| 86-73-7 | Fluorene | ND | | 96.2 | 80.4 | 84 | 77.7 | 81 | 3 | 61-106/19 |
| 118-74-1 | Hexachlorobenzene | ND | | 96.2 | 79.6 | 83 | 79.7 | 83 | 0 | 62-107/20 |
| 87-68-3 | Hexachlorobutadiene | ND | | 96.2 | 78.3 | 81 | 74.4 | 77 | 5 | 38-107/30 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 96.2 | 62.6 | 65 | 60.9 | 63 | 3 | 19-84/35 |
| 67-72-1 | Hexachloroethane | ND | | 96.2 | 76.9 | 80 | 72.3 | 75 | 6 | 35-101/29 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 96.2 | 81.7 | 85 | 81.6 | 85 | 0 | 61-113/20 |
| 78-59-1 | Isophorone | ND | | 96.2 | 84.3 | 88 | 79.6 | 83 | 6 | 56-111/26 |
| 91-57-6 | 2-Methylnaphthalene | 1.1 | J | 96.2 | 78.2 | 80 | 72.7 | 74 | 7 | 56-112/26 |
| 88-74-4 | 2-Nitroaniline | ND | | 96.2 | 86.2 | 90 | 84.5 | 88 | 2 | 60-109/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 96.2 | 70.1 | 73 | 70.4 | 73 | 0 | 52-107/21 |
| 100-01-6 | 4-Nitroaniline | ND | | 96.2 | 74.3 | 77 | 72.2 | 75 | 3 | 59-111/21 |
| 91-20-3 | Naphthalene | 3.8 | J | 96.2 | 79.8 | 79 | 74.9 | 74 | 6 | 50-104/28 |
| 98-95-3 | Nitrobenzene | ND | | 96.2 | 79.8 | 83 | 75.6 | 79 | 5 | 52-105/28 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 96.2 | 79.1 | 82 | 74.3 | 77 | 6 | 51-104/28 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 96.2 | 77.5 | 81 | 79.5 | 83 | 3 | 57-110/19 |
| 85-01-8 | Phenanthrene | ND | | 96.2 | 80.6 | 84 | 81.4 | 85 | 1 | 65-108/20 |
| 129-00-0 | Pyrene | ND | | 96.2 | 85.5 | 89 | 87.1 | 91 | 2 | 60-113/20 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 96.2 | 75.4 | 78 | 72.2 | 75 | 4 | 45-104/28 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55338-8 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 57% | 52% | 34% | 14-62% |
| 4165-62-2 | Phenol-d5 | 43%* | 39% | 21% | 10-40% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55338
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP23917-MS | X000719.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| OP23917-MSD | X000720.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |
| F55338-8 | X000718.D | 1 | 01/30/08 | NJ | 01/29/08 | OP23917 | SX41 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Surrogate Recoveries | MS | MSD | F55338-8 | Limits |
|---|---|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 79% | 70% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 80% | 75% | 74% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 73% | 67% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 83% | 86% | 77% | 39-121% |

## 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: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1279-MB | QQ033177.D | 1 | 01/29/08 | NJ | n/a | n/a | GQQ1279 |



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

F55338-7, F55338-8, F55338-9, F55338-10, F55338-11

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 77% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 93% | 73-118% |

# Method Blank Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1280-MB | QQ033199.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |



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

F55338-1, F55338-2, F55338-3, F55338-5, F55338-6

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 74% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 91% | 73-118% |

# Method Blank Summary



**Job Number:** F55338
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1282-MB | QQ033243.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |



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

F55338-4

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 80% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 92% | 73-118% |

# Method Blank Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1736-MB | UV030210.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55338-1, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 93% | 70-130% |
| 460-00-4 | BFB | 90% | 70-130% |

# Method Blank Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1737-MB | UV030243.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55338-2, F55338-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 102% | 70-130% |
| 460-00-4 | BFB | 104% | 70-130% |

# Blank Spike Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1279-BS | QQ033176.D | 1 | 01/29/08 | NJ | n/a | n/a | GQQ1279 |



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

F55338-7, F55338-8, F55338-9, F55338-10, F55338-11

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 21.2 | 106 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.8 | 104 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 17.4 | 87 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 18.0 | 90 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.5 | 88 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 20.4 | 102 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 20.8 | 104 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.6 | 103 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 62.0 | 103 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 104% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 98% | 73-118% |

# Blank Spike Summary



**Job Number:** F55338
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1280-BS | QQ033198.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |



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

F55338-1, F55338-2, F55338-3, F55338-5, F55338-6

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 21.4 | 107 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.7 | 104 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 16.8 | 84 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 17.4 | 87 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.3 | 87 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 20.5 | 103 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 20.8 | 104 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.7 | 104 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 61.9 | 103 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 107% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 102% | 73-118% |

# Blank Spike Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1282-BS | QQ033242.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |



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

F55338-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 21.3 | 107 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.6 | 103 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 16.9 | 85 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 17.5 | 88 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.2 | 86 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 20.3 | 102 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 20.9 | 105 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.6 | 103 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 61.5 | 103 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 104% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | 73-118% |

# Blank Spike Summary



**Job Number:** F55338
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1736-BS | UV030211.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55338-1, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | 480 | 603 | 126 | 70-130 |
| | C9- C12 Aliphatics (Unadj.) | 480 | 568 | 118 | 70-130 |
| | C9- C10 Aromatics (Unadj.) | 80 | 87.9 | 110 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 109% | 70-130% |
| 460-00-4 | BFB | 101% | 70-130% |

# Blank Spike Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1737-BS | UV030242.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55338-2, F55338-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | 480 | 574 | 120 | 70-130 |
| | C9- C12 Aliphatics (Unadj.) | 480 | 532 | 111 | 70-130 |
| | C9- C10 Aromatics (Unadj.) | 80 | 78.2 | 98 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 105% | 70-130% |
| 460-00-4 | BFB | 99% | 70-130% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55338-3MS | QQ033206.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |
| F55338-3MSD | QQ033207.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |
| F55338-3 [a] | QQ033205.D | 1 | 01/30/08 | NJ | n/a | n/a | GQQ1280 |



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

F55338-1, F55338-2, F55338-3, F55338-5, F55338-6

| CAS No. | Compound | F55338-3 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | | 20 | 21.3 | 107 | 21.3 | 107 | 0 | 80-120/10 |
| 108-90-7 | Chlorobenzene | ND | | 20 | 20.7 | 104 | 20.7 | 104 | 0 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | 3.1 | | 20 | 20.8 | 89 | 20.9 | 89 | 0 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.9 | | 20 | 19.3 | 87 | 19.4 | 88 | 1 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.8 | | 20 | 19.3 | 88 | 19.4 | 88 | 1 | 78-117/11 |
| 100-41-4 | Ethylbenzene | 4.2 | | 20 | 24.6 | 102 | 24.7 | 103 | 0 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 20 | 21.7 | 109 | 21.7 | 109 | 0 | 72-113/13 |
| 108-88-3 | Toluene | ND | | 20 | 20.7 | 104 | 20.6 | 103 | 0 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | 4.7 | | 60 | 66.9 | 104 | 66.7 | 103 | 0 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55338-3 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 106% | 106% | 101% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | 98% | 96% | 73-118% |

(a) All hits confirmed by GC/MS.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55338
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-1MS | QQ033250.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| F55407-1MSD | QQ033251.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| F55407-1 [a] | QQ033245.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |



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

F55338-4

| CAS No. | Compound | F55407-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 6.3 | | 20 | 27.3 | 105 | 26.9 | 103 | 1 | 80-120/10 |
| 108-90-7 | Chlorobenzene | ND | | 20 | 20.8 | 104 | 20.6 | 103 | 1 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | 27.0 | | 20 | 38.0 | 55* | 37.2 | 51* | 2 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | 5.5 | | 20 | 24.9 | 97 | 24.5 | 95 | 2 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | 3.8 | | 20 | 23.0 | 96 | 22.7 | 95 | 1 | 78-117/11 |
| 100-41-4 | Ethylbenzene | 37.6 | | 20 | 58.0 | 102 | 57.5 | 100 | 1 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | 5.8 | | 20 | 27.0 | 106 | 27.2 | 107 | 1 | 72-113/13 |
| 108-88-3 | Toluene | ND | | 20 | 20.4 | 102 | 20.2 | 101 | 1 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | 2.4 | J | 60 | 63.9 | 103 | 63.2 | 101 | 1 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 117% | 115% | 112% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | 94% | 94% | 73-118% |

(a) All hits confirmed by GC/MS.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-7MS | UV030237.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| F55407-7MSD | UV030238.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| F55407-7 | UV030230.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55338-1, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | F55407-7 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | 480 | 516 | 108 | 514 | 107 | 0 | 70-130/50 |
| | C9- C12 Aliphatics (Unadj.) | ND | | 480 | 491 | 102 | 486 | 101 | 1 | 70-130/50 |
| | C9- C10 Aromatics (Unadj.) | ND | | 80 | 77.0 | 96 | 74.9 | 94 | 3 | 70-130/50 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-7 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 98% | 94% | 90% | 70-130% |
| 460-00-4 | BFB | 91% | 95% | 86% | 70-130% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55436-5MS | UV030259.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-5MSD | UV030260.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-5 | UV030258.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55338-2, F55338-5

| CAS No. | Compound | F55436-5 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | 480 | 554 | 115 | 529 | 110 | 5 | 70-130/50 |
| | C9- C12 Aliphatics (Unadj.) | ND | | 480 | 536 | 112 | 511 | 106 | 5 | 70-130/50 |
| | C9- C10 Aromatics (Unadj.) | 12.8 | J | 80 | 92.6 | 100 | 87.8 | 94 | 5 | 70-130/50 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55436-5 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 100% | 94% | 91% | 70-130% |
| 460-00-4 | BFB | 96% | 88% | 87% | 70-130% |

# Duplicate Summary



Job Number: F55338
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-6DUP | UV030236.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| F55407-6 | UV030229.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55338-1, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10

| CAS No. | Compound | F55407-6 ug/l | Q | DUP ug/l | Q | RPD | Limits |
|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C12 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C10 Aromatics (Unadj.) | ND | | ND | | nc | |

| CAS No. | Surrogate Recoveries | DUP | F55407-6 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 92% | 87% | 70-130% |
| 460-00-4 | BFB | 85% | 80% | 70-130% |

# Duplicate Summary



**Job Number:** F55338
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55436-4DUP | UV030257.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-4 | UV030256.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55338-2, F55338-5

| CAS No. | Compound | F55436-4 ug/l | Q | DUP ug/l | Q | RPD | Limits |
|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C12 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C10 Aromatics (Unadj.) | ND | | ND | | nc | |

| CAS No. | Surrogate Recoveries | DUP | F55436-4 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 94% | 96% | 70-130% |
| 460-00-4 | BFB | 92% | 92% | 70-130% |

## Misc. Forms

6

# Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

# Accutest Laboratories Southeast
## Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # PAGE 1 OF 1

Accutest Quote # SKIFF#

**Client / Reporting Information**

Company Name: Accutest Southeast
Address:
City: State: Zip:
Project Contact: E-mail:
Phone#:
Sampler(s) Name(s) (Printed):

**Project Information**

Project Name: F55338
Street:
City: State:
Project #:
Fax #:
Client Purchase Order #:

**Analytical Information**

MADEPH

**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 | Time | Sampled By: | Matrix | Total # of Bottles | Preservation: Other | None | HCl | H2SO4 | HNO3 | NaOH | Zn Acet+NaOH | DI Water | MeOH | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F55338 -1 | 01/28/08 | 1300 | | GW | 2 | | | | | | X | | | X | |
| | -2 | | 1430 | | | | | | | | | | | | | |
| | -3 | | 1515 | | | | | | | | | | | | | |
| | -4 | | 1600 | | | | | | | | | | | | | |
| | -5 | 01/29/08 | 1100 | | | | | | | | | | | | | |
| | -6 | | 1200 | | | | | | | | | | | | | |
| | -7 | | 1300 | | | | | | | | | | | | | |
| | -8 | | 1415 | | | | | | | | | | | | | |
| | -9 | | 1530 | | | | | | | | | | | | | |
| | -10 | | 1536 | | | | | | | | | | | | | |

**TURNAROUND TIME (Business Days)**

Approved By: / Rush Code

- [x] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 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)
- [ ] EDD'S

13E

**Comments / Remarks**

AINF

AEBD

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 Morgan Bond | 1-28-08 | 2 7926 3859 1693 | 3 FedEx | 1/29/08 910 | 4 Well Okell |
| 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: 0.9

6.1 6

**F55338: Chain of Custody**
**Page 1 of 2**
**Accutest Labs of New England, Inc.**

ACCUTEST.

## Sample Problem Notice

Issue Date: 1/29/08

To: Client Services

From: Sample Management

Name/Initials: William Akillian / WA

Client: ACSE Project: F55338 Job# F55338

**Problem (check any that apply):**

__ Trip blank not received

__ Temperature criteria (0°-6°C) not met

__ Ice present __ No ice __ Frozen
__ Sample received outside of hold time

✓ Samples received broken
__ Insufficient volume for analysis
__ Samples received improperly preserved
__ Times on COC do not match sample labels
__ ID's on COC do not match sample labels

__ Analysis requested is unclear or missing
__ COC not filled out in indelible ink

__ VOC vials with headspace (macro-bubbles greater than pea-size – 4-6mm)
__ Bottles received, but analysis not requested on COC

__ No bottles received for analyses requested
__ Unclear filtering instructions
__ Unclear compositing instructions
__% Solids aliquot not received
__ No COC received
__ Sample dates or times unclear or missing
__ Other

**Description of Problem:**

F55338 - 3 · Bottle # 12

F55338 - 6 Bottle # 12

SM013-01 (10/01/07)



F55338: Chain of Custody
Page 2 of 2

GC Semi-volatiles

7

## QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



Job Number: F55338
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15139-MB | PO53424.D | 1 | 02/08/08 | SL | 02/04/08 | OP15139 | GPO3135 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 72% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 58% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 57% | 40-140% |

# Method Blank Summary



Job Number: F55338
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15199-MB | BC18357C.D | 1 | 02/14/08 | DG | 02/12/08 | OP15199 | GBC1025 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55338-4



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 74% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 42% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 70% | 40-140% |

# Blank Spike/Blank Spike Duplicate Summary



Job Number: F55338
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15139-BS | PO53425.D | 1 | 02/08/08 | SL | 02/04/08 | OP15139 | GPO3135 |
| OP15139-BSD | PO53426.D | 1 | 02/08/08 | SL | 02/04/08 | OP15139 | GPO3135 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10



| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 800 | 667 | 83 | 691 | 86 | 4 | 40-140/25 |
| | C9-C18 Aliphatics | 300 | 188 | 63 | 208 | 69 | 10 | 40-140/25 |
| | C19-C36 Aliphatics | 400 | 326 | 82 | 352 | 88 | 8 | 40-140/25 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 74% | 77% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | 69% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 49% | 54% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 68% | 68% | 40-140% |

| Sample | Compound | Col #1 | Col #2 | Breakthrough | Limit |
|---|---|---|---|---|---|
| OP15139-BS | 2-Methylnaphthalene | 27.1 | 0.15 | 0.6% | 5.0 |
| OP15139-BS | Naphthalene | 27.3 | 0.38 | 1.4% | 5.0 |
| OP15139-BSD | 2-Methylnaphthalene | 27.5 | 0.19 | 0.7% | 5.0 |
| OP15139-BSD | Naphthalene | 27.2 | 0.35 | 1.3% | 5.0 |

# Blank Spike/Blank Spike Duplicate Summary



Job Number: F55338
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15199-BS | BC18357D.D | 1 | 02/14/08 | DG | 02/12/08 | OP15199 | GBC1025 |
| OP15199-BSD | BC18357E.D | 1 | 02/14/08 | DG | 02/12/08 | OP15199 | GBC1025 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55338-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 800 | 741 | 93 | 662 | 83 | 11 | 40-140/25 |
| | C9-C18 Aliphatics | 300 | 173 | 58 | 129 | 43 [a] | 29* [a] | 40-140/25 |
| | C19-C36 Aliphatics | 400 | 352 | 88 | 323 | 81 | 9 | 40-140/25 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 79% | 70% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | 73% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 57% | 42% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 64% | 67% | 40-140% |

| Sample | Compound | Col #1 | Col #2 | Breakthrough | Limit |
|---|---|---|---|---|---|
| OP15199-BS | 2-Methylnaphthalene | 27.0 | 0.083 | 0.3% | 5.0 |
| OP15199-BS | Naphthalene | 25.2 | 1.2 | 4.5% | 5.0 |
| OP15199-BSD | 2-Methylnaphthalene | 21.7 | 0.079 | 0.4% | 5.0 |
| OP15199-BSD | Naphthalene | 21.5 | 0.044 | 0.2% | 5.0 |

(a) Recovery of n-nonane was < 30% for laboratory control sample. Range recovery satisfactory.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55338
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15139-MS | PO53427.D | 1 | 02/08/08 | SL | 02/04/08 | OP15139 | GPO3135 |
| OP15139-MSD | PO53428.D | 1 | 02/08/08 | SL | 02/04/08 | OP15139 | GPO3135 |
| F55338-1 | PO53429.D | 1 | 02/08/08 | SL | 02/04/08 | OP15139 | GPO3135 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55338-1, F55338-2, F55338-3, F55338-4, F55338-5, F55338-6, F55338-7, F55338-8, F55338-9, F55338-10



| CAS No. | Compound | F55338-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | | 1520 | 1400 | 92 | 1390 | 91 | 1 | 50-150/30 [a] |
| | C9-C18 Aliphatics | ND | | 571 | 497 | 87 | 459 | 80 | 8 | 40-140/25 |
| | C19-C36 Aliphatics | ND | | 762 | 777 | 102 | 702 | 92 | 10 | 40-140/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55338-1 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 83% | 84% | 74% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | 74% | 73% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 55% | 48% | 51% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 72% | 73% | 73% | 40-140% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55338
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15199-MS | BC18357G.D | 1 | 02/14/08 | DG | 02/12/08 | OP15199 | GBC1025 |
| OP15199-MSD | BC18357H.D | 1 | 02/14/08 | DG | 02/12/08 | OP15199 | GBC1025 |
| M70811-5 | BC18357I.D | 1 | 02/14/08 | DG | 02/12/08 | OP15199 | GBC1025 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55338-4

| CAS No. | Compound | M70811-5 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | | 800 | 709 | 89 | 700 | 88 | 1 | 50-150/30 [a] |
| | C9-C18 Aliphatics | ND | | 300 | 239 | 80 | 253 | 84 | 6 | 40-140/25 |
| | C19-C36 Aliphatics | ND | | 400 | 371 | 93 | 354 | 89 | 5 | 40-140/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | M70811-5 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 76% | 76% | 79% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 75% | 81% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 48% | 57% | 47% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 68% | 58% | 71% | 40-140% |

(a) Advisory control limits.

7.3

7

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

02/26/08

## Technical Report for

Shaw E & I, Inc.

Camp Lejeune-MCAS-Rapid Refueler

126006

Accutest Job Number: F55407

Sampling Date: 01/29/08

Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: 115

ACCREDITED IN ACCORDANCE WITH nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Heather Wandrey 407-425-6700

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

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Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7

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# Sample Summary

Shaw E & I, Inc.

Job No: F55407

Camp Lejeune-MCAS-Rapid Refueler
Project No: 126006

| Sample Number | Collected Date | Time | By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|---|
| F55407-1 | 01/29/08 | 08:00 | MM | 01/31/08 | AQ | Ground Water | USTRR-MW17 |
| F55407-2 | 01/29/08 | 09:00 | MM | 01/31/08 | AQ | Ground Water | USTAS497-MW04 |
| F55407-3 | 01/29/08 | 10:00 | MM | 01/31/08 | AQ | Ground Water | USTAS497-MW03 |
| F55407-4 | 01/29/08 | 11:00 | MM | 01/31/08 | AQ | Ground Water | USTAS497-MW06 |
| F55407-5 | 01/29/08 | 12:00 | MM | 01/31/08 | AQ | Ground Water | USTRR-MW12 |
| F55407-6 | 01/29/08 | 13:00 | MM | 01/31/08 | AQ | Ground Water | USTAS497-MW01 |
| F55407-7 | 01/29/08 | 14:00 | MM | 01/31/08 | AQ | Ground Water | USTAS497-MW02 |
| F55407-8 | 01/29/08 | 15:00 | MM | 01/31/08 | AQ | Ground Water | USTAS511-MW02 |
| F55407-9 | 01/29/08 | 15:30 | MM | 01/31/08 | AQ | Ground Water | USTAS511-MW06 |
| F55407-10 | 01/29/08 | 16:30 | MM | 01/31/08 | AQ | Ground Water | USTRR-MW22 |
| F55407-11 | 01/29/08 | 00:00 | MM | 01/31/08 | AQ | Trip Blank Water | TRIP BLANK 012908 |

## Sample Results

### Report of Analysis

Accutest LabLink@73654 11:31 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW17 | | |
| **Lab Sample ID:** | F55407-1 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000961.D | 5 | 02/08/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 120 | 48 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 24 | 4.8 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 24 | 9.6 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 24 | 4.8 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 24 | 9.6 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 120 | 48 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 48 | 9.6 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 24 | 4.8 | ug/l | |
| | 3&4-Methylphenol | ND | 24 | 6.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 24 | 4.8 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 120 | 48 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 120 | 48 | ug/l | |
| 108-95-2 | Phenol | ND | 24 | 9.6 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 24 | 4.8 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 24 | 4.8 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 24 | 6.7 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 24 | 5.3 | ug/l | |
| 120-12-7 | Anthracene | ND | 24 | 4.8 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 24 | 4.8 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 24 | 4.8 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 24 | 4.8 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 24 | 4.8 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 24 | 4.8 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 24 | 5.8 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 24 | 9.6 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 24 | 4.8 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 24 | 6.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 24 | 9.6 | ug/l | |
| 86-74-8 | Carbazole | ND | 24 | 4.8 | ug/l | |
| 218-01-9 | Chrysene | ND | 24 | 4.8 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 24 | 4.8 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 24 | 4.8 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW17 | | |
| **Lab Sample ID:** | F55407-1 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 24 | 4.8 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 24 | 6.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 24 | 7.2 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 24 | 7.7 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 24 | 7.2 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 24 | 4.8 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 24 | 4.8 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 48 | 9.6 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 24 | 4.8 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 24 | 4.8 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 24 | 9.6 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 24 | 9.6 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 24 | 9.6 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 24 | 9.6 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 576 | 24 | 9.6 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 24 | 4.8 | ug/l | |
| 86-73-7 | Fluorene | ND | 24 | 5.8 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 24 | 5.8 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 24 | 8.2 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 24 | 7.2 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 24 | 9.1 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 24 | 4.8 | ug/l | |
| 78-59-1 | Isophorone | ND | 24 | 4.8 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 82.3 | 24 | 4.8 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 48 | 9.6 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 48 | 9.6 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 48 | 9.6 | ug/l | |
| 91-20-3 | Naphthalene | 136 | 24 | 5.8 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 24 | 4.8 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 24 | 4.8 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 24 | 4.8 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 24 | 4.8 | ug/l | |
| 129-00-0 | Pyrene | ND | 24 | 4.8 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 24 | 7.2 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 41% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 25% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 95% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW17 | | |
| **Lab Sample ID:** | F55407-1 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 97% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 90% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 86% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 2051 | Octane, 2,6-dimethyl- | 4.21 | 51 | ug/l | JN |
| 13151 | Decane, 3-methyl- | 4.87 | 80 | ug/l | JN |
| 496 | Indane | 4.91 | 57 | ug/l | JN |
| 135 | Benzene, 1,2-diethyl- | 4.97 | 54 | ug/l | JN |
| 535 | Benzene, 1-methyl-3-(1-methylethyl | 5.16 | 82 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.71 | 63 | ug/l | JN |
| 20836 | 1H-Indene,2,3-dihydro-2,2-dimethyl | 5.94 | 85 | ug/l | JN |
| 54676 | Cyclohexane, 2-butyl-1,1,3-trimeth | 6.08 | 77 | ug/l | JN |
| 61142 | Cyclohexane, (4-methylpentyl)- | 6.16 | 67 | ug/l | JN |
| 15869 | Octane, 3,6-dimethyl- | 6.33 | 150 | ug/l | JN |
| 5617 | Heptylcyclohexane | 6.89 | 52 | ug/l | JN |
| 632 | Benzoic acid, 2,6-dimethyl- | 6.98 | 74 | ug/l | JN |
| 94 | Ethyl 4-methylbenzoate | 7.69 | 51 | ug/l | JN |
| 55045 | Dodecane, 2-methyl-8-propyl- | 7.74 | 110 | ug/l | JN |
| 1011 | Cyclohexanone, 2-cyclohexylidene- | 8.41 | 130 | ug/l | JN |
| 2243 | 3-Butenoic acid, 4-phenyl- | 8.68 | 90 | ug/l | JN |
| 53774 | 3-Pentenoic acid, 4-phenyl- | 8.99 | 69 | ug/l | JN |
| 19851 | 1,3-Benzenedimethanamine, N,N,N',N | 9.24 | 57 | ug/l | JN |
| 1000197 | 4b,8-Dimethyl-2-isopropylphenanthr | 12.34 | 78 | ug/l | JN |
| 1000147 | 2,7-Dimethyl-3,5-dimethylthio-2H-1 | 12.52 | 96 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 1573 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW17 | | |
| **Lab Sample ID:** | F55407-1 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033245.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 6.3 | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 28 | 28 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene [b] | ND | 6.0 | 6.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene [b] | ND | 4.0 | 4.0 | ug/l | |
| 100-41-4 | Ethylbenzene | 37.6 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 5.8 | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 2.4 | 3.0 | 1.0 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 112% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW17 | | |
| **Lab Sample ID:** | F55407-1 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030279.D | 10 | 02/08/08 | MM | n/a | n/a | GUV1738 |
| Run #2 [a] | UV030246.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 750 | 500 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 1950 | 550 | 300 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 1200 | 200 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 109% | 123% | 70-130% |
| 460-00-4 | BFB | 113% | 154% [b] | 70-130% |

(a) Confirmation run.
(b) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
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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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW17 | | |
| **Lab Sample ID:** | F55407-1 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18371.D | 1 | 02/15/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1026 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 2380 | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | 8710 | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | 285 | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 67% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 41% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 74% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW04 | | |
| **Lab Sample ID:** | F55407-2 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000943.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW04 | | |
| **Lab Sample ID:** | F55407-2 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 33% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 20% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 68% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW04 | | |
| **Lab Sample ID:** | F55407-2 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 62% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 67% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 10544 | Cyclic octaatomic sulfur | 12.55 | 9 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 9 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW04 | | |
| **Lab Sample ID:** | F55407-2 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033246.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 88% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 93% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW04 | | |
| **Lab Sample ID:** | F55407-2 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030225.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 85% | | 70-130% |
| 460-00-4 | BFB | 86% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW04 | | |
| **Lab Sample ID:** | F55407-2 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18430.D | 1 | 02/18/08 | AMA | 02/14/08 | M:OP15213 | M:GBC1029 |
| Run #2 [b] | BC18348.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 2.0 ml |
| Run #2 | 1000 ml | 2.0 ml |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 95 | 95 | ug/l | |
| | C9-C18 Aliphatics | ND | 95 | 95 | ug/l | |
| | C19-C36 Aliphatics | ND | 95 | 95 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 66% | 8% [c] | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 76% | 88% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 38% [c] | 3% [c] | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 66% | 81% | 40-140% |

(a) Sample re-extracted beyond recommended holding time. Analysis performed at Accutest Laboratories, Marlborough, MA.
(b) Analysis performed at Accutest Laboratories, Marlborough, MA.
(c) Outside control limits due to possible matrix interference. Confirmed by re-extraction/reanalysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW03 | | |
| **Lab Sample ID:** | F55407-3 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000944.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW03 | | |
| **Lab Sample ID:** | F55407-3 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 37% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 22% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 77% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW03 | | |
| **Lab Sample ID:** | F55407-3 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 79% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 73% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW03 | | |
| **Lab Sample ID:** | F55407-3 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033247.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 86% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 93% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW03 | | |
| **Lab Sample ID:** | F55407-3 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030226.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 91% | | 70-130% |
| 460-00-4 | BFB | 85% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW03 | | |
| **Lab Sample ID:** | F55407-3 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18349.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 69% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 48% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 43% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 46% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW06 | | |
| **Lab Sample ID:** | F55407-4 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000945.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| Client Sample ID: | USTAS497-MW06 | | |
| Lab Sample ID: | F55407-4 | Date Sampled: | 01/29/08 |
| Matrix: | AQ - Ground Water | Date Received: | 01/31/08 |
| Method: | EPA 625 EPA 625 | Percent Solids: | n/a |
| Project: | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 21% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 75% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW06 | | |
| **Lab Sample ID:** | F55407-4 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 72% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 78% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW06 | | |
| **Lab Sample ID:** | F55407-4 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033248.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 83% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 93% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW06 | | |
| **Lab Sample ID:** | F55407-4 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030227.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 91% | | 70-130% |
| 460-00-4 | BFB | 87% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW06 | | |
| **Lab Sample ID:** | F55407-4 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18350.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 65% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 44% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 40% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 42% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW12 | | |
| **Lab Sample ID:** | F55407-5 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | R12639.D | 5 | 02/08/08 | NJ | 02/05/08 | OP24004 | SR581 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1020 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 120 | 49 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 25 | 4.9 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 25 | 9.8 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 25 | 4.9 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 25 | 9.8 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 120 | 49 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 49 | 9.8 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 25 | 4.9 | ug/l | |
| | 3&4-Methylphenol | ND | 25 | 6.4 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 25 | 4.9 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 120 | 49 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 120 | 49 | ug/l | |
| 108-95-2 | Phenol | ND | 25 | 9.8 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 25 | 4.9 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 25 | 4.9 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 25 | 6.9 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 25 | 5.4 | ug/l | |
| 120-12-7 | Anthracene | ND | 25 | 4.9 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 25 | 4.9 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 25 | 4.9 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 25 | 4.9 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 25 | 4.9 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 25 | 4.9 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 25 | 5.9 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 25 | 9.8 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 25 | 4.9 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 25 | 6.4 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 25 | 9.8 | ug/l | |
| 86-74-8 | Carbazole | ND | 25 | 4.9 | ug/l | |
| 218-01-9 | Chrysene | ND | 25 | 4.9 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 25 | 4.9 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 25 | 4.9 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW12 | | |
| **Lab Sample ID:** | F55407-5 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 25 | 4.9 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 25 | 6.4 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 25 | 7.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 25 | 7.8 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 25 | 7.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 25 | 4.9 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 25 | 4.9 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 49 | 9.8 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 25 | 4.9 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 25 | 4.9 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 25 | 9.8 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 25 | 9.8 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 25 | 9.8 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 25 | 9.8 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 35.5 | 25 | 9.8 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 25 | 4.9 | ug/l | |
| 86-73-7 | Fluorene | ND | 25 | 5.9 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 25 | 5.9 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 25 | 8.3 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 25 | 7.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 25 | 9.3 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 25 | 4.9 | ug/l | |
| 78-59-1 | Isophorone | ND | 25 | 4.9 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 112 | 25 | 4.9 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 49 | 9.8 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 49 | 9.8 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 49 | 9.8 | ug/l | |
| 91-20-3 | Naphthalene | 107 | 25 | 5.9 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 25 | 4.9 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 25 | 4.9 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 25 | 4.9 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 25 | 4.9 | ug/l | |
| 129-00-0 | Pyrene | ND | 25 | 4.9 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 25 | 7.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 30% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 21% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 76% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW12 | | |
| **Lab Sample ID:** | F55407-5 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 96% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 80% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 51% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 13151 | Decane, 3-methyl- | 4.37 | 180 | ug/l | JN |
| 934 | Benzene, 4-ethyl-1,2-dimethyl- | 4.60 | 200 | ug/l | JN |
| 488-23-3 | Benzene, 1,2,3,4-tetramethyl- | 4.82 | 100 | ug/l | JN |
| 95 | Benzene, 1,2,4,5-tetramethyl- | 4.85 | 230 | ug/l | JN |
| 7206 | 2-Dodecene, (Z)- | 4.89 | 120 | ug/l | JN |
| 95 | Benzene, 1,2,4,5-tetramethyl- | 5.03 | 340 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.10 | 240 | ug/l | JN |
| 6044 | Dodecane, 6-methyl- | 5.33 | 260 | ug/l | JN |
| 17312 | Undecane, 2,4-dimethyl- | 5.38 | 110 | ug/l | JN |
| 530 | 2(1H)-Naphthalenone, 3,4-dihydro- | 5.42 | 130 | ug/l | JN |
| 3178 | Cyclohexane, 1,1'-methylenebis- | 5.52 | 260 | ug/l | JN |
| 25419 | Naphthalene, 1,2,3,4-tetrahydro-1, | 5.58 | 110 | ug/l | JN |
| 62016 | Octane, 2,3,7-trimethyl- | 5.69 | 440 | ug/l | JN |
| 7306 | 1-Methyl-1-phenylcyclobutane | 5.72 | 100 | ug/l | JN |
| 14167 | Tetratriacontane | 5.98 | 130 | ug/l | JN |
| 5617 | Heptylcyclohexane | 6.19 | 140 | ug/l | JN |
| 582 | Naphthalene, 2,7-dimethyl- | 6.68 | 99 | ug/l | JN |
| 581 | Naphthalene, 2,3-dimethyl- | 6.80 | 120 | ug/l | JN |
| 581 | Naphthalene, 2,6-dimethyl- | 6.82 | 100 | ug/l | JN |
| 544 | Hexadecane | 7.00 | 140 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 3549 | ug/l | J |

(a) Dilution required due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW12 | | |
| **Lab Sample ID:** | F55407-5 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033290.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 [b] | QQ033390.D | 1 | 02/07/08 | NJ | n/a | n/a | GQQ1289 |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 3.2 | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [c] | ND | 58 | 58 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene [c] | ND | 9.0 | 9.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene [c] | ND | 15 | 15 | ug/l | |
| 100-41-4 | Ethylbenzene | 14.6 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.2 | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 4.0 | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 120% | 122% [d] | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | 94% | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Confirmation run.
(c) Elevated reporting limits due to matrix interference.
(d) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW12 | | |
| **Lab Sample ID:** | F55407-5 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030262.D | 20 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 1500 | 1000 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 6020 | 1100 | 600 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 3860 | 400 | 200 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 105% | | 70-130% |
| 460-00-4 | BFB | 112% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW12 | | |
| **Lab Sample ID:** | F55407-5 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18372.D | 1 | 02/15/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1026 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 3100 | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | 12300 | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 67% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 112% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 44% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 109% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW01 | | |
| **Lab Sample ID:** | F55407-6 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000947.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW01 | | |
| **Lab Sample ID:** | F55407-6 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 37% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 23% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 82% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW01 | | |
| **Lab Sample ID:** | F55407-6 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 78% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 59% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW01 | | |
| **Lab Sample ID:** | F55407-6 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | CD082866.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW01 | | |
| **Lab Sample ID:** | F55407-6 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030229.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 87% | | 70-130% |
| 460-00-4 | BFB | 80% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW01 | | |
| **Lab Sample ID:** | F55407-6 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18353.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 73% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 79% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 47% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 72% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW02 | | |
| **Lab Sample ID:** | F55407-7 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000948.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1050 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.5 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.5 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.5 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.95 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.95 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.5 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.5 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.95 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.0 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.95 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.95 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.1 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.95 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.95 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.95 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.95 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.95 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW02 | | |
| **Lab Sample ID:** | F55407-7 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.95 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.95 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.5 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.95 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.95 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.95 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.1 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.1 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.95 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.95 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.95 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.5 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.1 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.95 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.95 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.95 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.95 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.95 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 25% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 15% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 68% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS497-MW02 | | |
| **Lab Sample ID:** | F55407-7 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 63% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 61% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 64% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW02 | | |
| **Lab Sample ID:** | F55407-7 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | CD082867.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW02 | | |
| **Lab Sample ID:** | F55407-7 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030230.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 90% | | 70-130% |
| 460-00-4 | BFB | 86% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS497-MW02 | | |
| **Lab Sample ID:** | F55407-7 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18354.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 74% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 85% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 45% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 76% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW02 | | |
| **Lab Sample ID:** | F55407-8 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000949.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW02 | | |
| **Lab Sample ID:** | F55407-8 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 26% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 73% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW02 | | |
| **Lab Sample ID:** | F55407-8 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 65% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 72% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW02 | | |
| **Lab Sample ID:** | F55407-8 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | CD082868.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 94% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW02 | | |
| **Lab Sample ID:** | F55407-8 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030233.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 88% | | 70-130% |
| 460-00-4 | BFB | 87% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW02 | | |
| **Lab Sample ID:** | F55407-8 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18355.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 76% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 83% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 43% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 76% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW06 | | |
| **Lab Sample ID:** | F55407-9 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000950.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW06 | | |
| **Lab Sample ID:** | F55407-9 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 24% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 14% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 67% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW06 | | |
| **Lab Sample ID:** | F55407-9 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 64% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 62% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 70% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW06 | | |
| **Lab Sample ID:** | F55407-9 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033291.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW06 | | |
| **Lab Sample ID:** | F55407-9 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030234.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 92% | | 70-130% |
| 460-00-4 | BFB | 87% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
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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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW06 | | |
| **Lab Sample ID:** | F55407-9 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18356.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 74% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 82% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 47% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 71% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW22 | | |
| **Lab Sample ID:** | F55407-10 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000953.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW22 | | |
| **Lab Sample ID:** | F55407-10 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 3.8 | 4.8 | 1.9 | ug/l | J |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 20.1 | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 20.2 | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 26% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 76% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW22 | | |
| **Lab Sample ID:** | F55407-10 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 70% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 66% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 47% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 611 | Benzene, 1-ethyl-2-methyl- | 4.44 | 15 | ug/l | JN |
| 108 | Benzene, 1,3,5-trimethyl- | 4.48 | 12 | ug/l | JN |
| 622 | Benzene, 1-ethyl-4-methyl- | 4.55 | 23 | ug/l | JN |
| 526 | Benzene, 1,2,3-trimethyl- | 4.82 | 34 | ug/l | JN |
| 496 | Indane | 4.91 | 10 | ug/l | JN |
| 1074 | Benzene, 1-methyl-3-propyl- | 4.98 | 19 | ug/l | JN |
| 1000185 | Tetracyclo[3.3.1.1(1,8).0(2,4)]dec | 5.02 | 12 | ug/l | JN |
| 1074 | Benzene, 1-methyl-2-propyl- | 5.09 | 11 | ug/l | JN |
| 1758 | Benzene, 2-ethyl-1,4-dimethyl- | 5.15 | 14 | ug/l | JN |
| 2870 | Benzene, 2-ethyl-1,3-dimethyl- | 5.16 | 15 | ug/l | JN |
| 874 | Benzene, 1-ethyl-2,4-dimethyl- | 5.40 | 12 | ug/l | JN |
| 95 | Benzene, 1,2,4,5-tetramethyl- | 5.42 | 15 | ug/l | JN |
| 2039 | Benzene, 2-ethenyl-1,4-dimethyl- | 5.56 | 13 | ug/l | JN |
| 535-77-3 | Benzene, 1-methyl-3-(1-methylethyl)- | 5.63 | 31 | ug/l | JN |
| 119 | Naphthalene, 1,2,3,4-tetrahydro- | 5.71 | 21 | ug/l | JN |
| 17301 | Undecane, 2,6-dimethyl- | 5.94 | 11 | ug/l | JN |
| 31295 | Dodecane, 2,6,11-trimethyl- | 7.08 | 10 | ug/l | JN |
| 569 | Naphthalene, 1,8-dimethyl- | 7.58 | 10 | ug/l | JN |
| 71105 | 1,2-Phenylene diisothiocyanate | 8.39 | 14 | ug/l | JN |
| 10544 | Cyclic octaatomic sulfur | 12.65 | 400 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 702 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73654 11:31 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW22 | | |
| **Lab Sample ID:** | F55407-10 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033292.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [b] | ND | 9.0 | 9.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene [b] | ND | 4.0 | 4.0 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene [b] | ND | 4.0 | 4.0 | ug/l | |
| 100-41-4 | Ethylbenzene | 2.2 | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | 4.9 | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 109% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 99% | | 73-118% |

(a) All hits confirmed by GC/MS.
(b) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73654 11:31 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW22 | | |
| **Lab Sample ID:** | F55407-10 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030235.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 84% | | 70-130% |
| 460-00-4 | BFB | 79% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@73654 11:31 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW22 | | |
| **Lab Sample ID:** | F55407-10 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 01/31/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18373.D | 1 | 02/15/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1026 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 233 | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | 511 | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 69% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 82% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 43% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 79% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73654 11:31 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK 012908 | | |
| **Lab Sample ID:** | F55407-11 | **Date Sampled:** | 01/29/08 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 01/31/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | QQ033389.D | 1 | 02/07/08 | NJ | n/a | n/a | GQQ1289 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 72% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 90% | | 73-118% |

(a) No sample available for reanalysis.
(b) CCV outside of control limits; results may be biased low.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

## Misc. Forms

# Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

COC Number:
126006-RR-013008

F55407

Shaw Environmental & Infrastructure, Inc.

# CHAIN-OF-CUSTODY RECORD

24783

**Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390**

Receiving LAB:Accutest

| Project Name | Project Location | | |
|---|---|---|---|
| CAMP LEJEUNE - Rapid Refueler | CAMP LEJEUNE, NC | | |
| **Project Number** | **Contact** | **P.O. Number** | **Reviewed by** |
| 126006 | Mark Martin | | |
| **Client Rep** | **Project Manager** | | |
| US NAVY - LANTDIV | Joe Colella | | |

| Item No. | Sample Number | Date | Time | Comp | Grab | Sample Description | Number of Containers | VOC 602 | 625 | MADEP EPH | MADEP VPH | Analysis Desired |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | USTRR-MW17 | 1/29/08 | 8:00 | | X | USTRR-MW17 | 10 | X | X | X | X | |
| 2 | USTAS497-MW04 | 1/29/08 | 9:00 | | X | USTAS497-MW04 | 10 | X | X | X | X | |
| 3 | USTAS497-MW03 | 1/29/08 | 10:00 | | X | USTAS497-MW03 | 10 | X | X | X | X | |
| 4 | USTAS497-MW06 | 1/29/08 | 11:00 | | X | USTAS497-MW06 | 10 | X | X | X | X | |
| 5 | USTRR-MW12 | 1/29/08 | 12:00 | | X | USTRR-MW12 | 10 | X | X | X | X | |
| 6 | USTAS497-MW01 | 1/29/08 | 13:00 | | X | USTAS497-MW01 | 10 | X | X | X | X | |
| 7 | USTAS497-MW02 | 1/29/08 | 14:00 | | X | USTAS497-MW02 | 10 | X | X | X | X | |
| 8 | USTAS511-MW02 | 1/29/08 | 15:00 | | X | USTAS511-MW02 | 10 | X | X | X | X | |
| 9 | USTAS511-MW06 | 1/29/08 | 15:30 | | X | USTAS511-MW06 | 10 | X | X | X | X | |
| 10 | USTRR-MW22 | 1/29/08 | 16:30 | | X | USTRR-MW22 | 10 | X | X | X | X | |
| 11 | Trip Blank 012908 | 1/29/08 | — | | X | Trip Blank | 2 | X | | | | |

| Transfer Number | Item Number | Transfers Relinquished By | Transfers Accepted By | Date | Time |
|---|---|---|---|---|---|
| 1 | 1 -- 11 | | FedEx | 1/30/08 | 16:00 |
| 2 | | FEDEX | Felipe Montenegro | 1/31/08 | 0900 |
| 3 | | | | | |

**Remarks**

**14 Day TAT**

FedEx 8639 0322 1953, 8639 0322 1964, 8639 0322 1975, 8639 0322 1986

1-2-0-8-1-6-1-0

**F55407: Chain of Custody**
**Page 1 of 2**

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F55407 CLIENT: SHAW PROJECT: CAMP LEJEUNE

DATE/TIME RECEIVED: 01-31-08 0900 # OF COOLERS RECEIVED: 4 COOLER TEMPS: 1.2 - 0.8 - 1.6 - 1.0

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

AIRBILL NUMBERS: 863903221986

### 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
- [X] WET ICE RECEIVED IN COOLER

### 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

### SAMPLE INFORMATION

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

( APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

### MISC. INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

NUMBER OF LAB FILTERED METALS ? Ø

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE F.M. 01.31.08 TECHNICIAN SIGNATURE/DATE VC 01-31-08 ASBD 12/17/07

3.1 3

F55407: Chain of Custody
Page 2 of 2

## 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:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | X000941.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 1.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 1.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 1.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 5.0 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 5.0 | 1.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.6 | ug/l | |

# Method Blank Summary

**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | X000941.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 1.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 1.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 14-62% |
| 4165-62-2 | Phenol-d5 | 22% | 10-40% |

# Method Blank Summary

Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | X000941.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



The QC reported here applies to the following samples: Method: EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 70% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

# Method Blank Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler



| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | R12638.D | 1 | 02/08/08 | NJ | 02/05/08 | OP24004 | SR581 |

**The QC reported here applies to the following samples:** **Method:** EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 1.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 1.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 1.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 5.0 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 5.0 | 1.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.6 | ug/l | |

# Method Blank Summary

Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | R12638.D | 1 | 02/08/08 | NJ | 02/05/08 | OP24004 | SR581 |



The QC reported here applies to the following samples: Method: EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 1.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 1.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 33% | 14-62% |
| 4165-62-2 | Phenol-d5 | 21% | 10-40% |

# Method Blank Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | R12638.D | 1 | 02/08/08 | NJ | 02/05/08 | OP24004 | SR581 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 68% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 71% | 39-121% |

| 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: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-BS | X000940.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



The QC reported here applies to the following samples: Method: EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 100 | 15.7 | 16 | 10-50 |
| 95-57-8 | 2-Chlorophenol | 50 | 35.0 | 70 | 44-103 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 36.6 | 73 | 53-105 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 38.7 | 77 | 53-108 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 32.3 | 65 | 37-91 |
| 51-28-5 | 2,4-Dinitrophenol | 100 | 70.7 | 71 | 37-111 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 100 | 82.6 | 83 | 62-115 |
| 95-48-7 | 2-Methylphenol | 50 | 29.1 | 58 | 35-91 |
| | 3&4-Methylphenol | 100 | 53.7 | 54 | 32-85 |
| 88-75-5 | 2-Nitrophenol | 50 | 39.7 | 79 | 49-111 |
| 100-02-7 | 4-Nitrophenol | 100 | 26.6 | 27 | 13-55 |
| 87-86-5 | Pentachlorophenol | 100 | 88.2 | 88 | 57-118 |
| 108-95-2 | Phenol | 50 | 14.3 | 29 | 13-54 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 40.2 | 80 | 59-106 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 40.6 | 81 | 58-107 |
| 83-32-9 | Acenaphthene | 50 | 41.1 | 82 | 58-106 |
| 208-96-8 | Acenaphthylene | 50 | 40.2 | 80 | 58-105 |
| 120-12-7 | Anthracene | 50 | 40.8 | 82 | 65-108 |
| 56-55-3 | Benzo(a)anthracene | 50 | 41.6 | 83 | 63-111 |
| 50-32-8 | Benzo(a)pyrene | 50 | 41.4 | 83 | 62-106 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 41.4 | 83 | 63-109 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 41.4 | 83 | 61-111 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 43.2 | 86 | 64-111 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 41.0 | 82 | 64-107 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 41.5 | 83 | 59-114 |
| 100-51-6 | Benzyl Alcohol | 50 | 32.7 | 65 | 34-98 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 40.1 | 80 | 54-105 |
| 106-47-8 | 4-Chloroaniline | 50 | 39.5 | 79 | 53-103 |
| 86-74-8 | Carbazole | 50 | 42.2 | 84 | 66-109 |
| 218-01-9 | Chrysene | 50 | 42.2 | 84 | 64-111 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 40.0 | 80 | 48-101 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 41.0 | 82 | 51-108 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 40.2 | 80 | 43-106 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 41.1 | 82 | 61-107 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 32.1 | 64 | 41-102 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 30.2 | 60 | 38-100 |

# Blank Spike Summary

**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler



| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-BS | X000940.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |

**The QC reported here applies to the following samples:** **Method:** EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 30.7 | 61 | 40-100 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 42.0 | 84 | 60-109 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 40.1 | 80 | 58-104 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 34.5 | 69 | 57-105 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 40.9 | 82 | 62-112 |
| 132-64-9 | Dibenzofuran | 50 | 40.5 | 81 | 61-108 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 41.2 | 82 | 62-109 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 41.7 | 83 | 60-120 |
| 84-66-2 | Diethyl phthalate | 50 | 39.8 | 80 | 62-109 |
| 131-11-3 | Dimethyl phthalate | 50 | 41.7 | 83 | 63-106 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 42.0 | 84 | 59-116 |
| 206-44-0 | Fluoranthene | 50 | 42.1 | 84 | 65-114 |
| 86-73-7 | Fluorene | 50 | 41.4 | 83 | 61-106 |
| 118-74-1 | Hexachlorobenzene | 50 | 40.9 | 82 | 62-107 |
| 87-68-3 | Hexachlorobutadiene | 50 | 31.5 | 63 | 38-107 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 26.5 | 53 | 19-84 |
| 67-72-1 | Hexachloroethane | 50 | 28.6 | 57 | 35-101 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 40.2 | 80 | 61-113 |
| 78-59-1 | Isophorone | 50 | 42.5 | 85 | 56-111 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 39.5 | 79 | 56-112 |
| 88-74-4 | 2-Nitroaniline | 50 | 42.6 | 85 | 60-109 |
| 99-09-2 | 3-Nitroaniline | 50 | 41.4 | 83 | 52-107 |
| 100-01-6 | 4-Nitroaniline | 50 | 41.8 | 84 | 59-111 |
| 91-20-3 | Naphthalene | 50 | 36.5 | 73 | 50-104 |
| 98-95-3 | Nitrobenzene | 50 | 40.1 | 80 | 52-105 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 39.8 | 80 | 51-104 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 38.5 | 77 | 57-110 |
| 85-01-8 | Phenanthrene | 50 | 41.7 | 83 | 65-108 |
| 129-00-0 | Pyrene | 50 | 42.1 | 84 | 60-113 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 34.0 | 68 | 45-104 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 40% | 14-62% |
| 4165-62-2 | Phenol-d5 | 28% | 10-40% |

# Blank Spike Summary

Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-BS | X000940.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



The QC reported here applies to the following samples: Method: EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 72% | 39-121% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler



| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MS | X000951.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| OP24004-MSD | X000952.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| F55407-9 | X000950.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |

**The QC reported here applies to the following samples:** **Method:** EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | F55407-9 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | | 192 | 71.5 | 37 | 58.8 | 31 | 19 | 10-50/40 |
| 95-57-8 | 2-Chlorophenol | ND | | 96.2 | 74.0 | 77 | 71.9 | 75 | 3 | 44-103/29 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 96.2 | 77.6 | 81 | 76.1 | 79 | 2 | 53-105/24 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 96.2 | 78.5 | 82 | 77.8 | 81 | 1 | 53-108/26 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 96.2 | 63.9 | 66 | 63.8 | 66 | 0 | 37-91/28 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 192 | 164 | 85 | 163 | 85 | 1 | 37-111/30 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 192 | 171 | 89 | 171 | 89 | 0 | 62-115/26 |
| 95-48-7 | 2-Methylphenol | ND | | 96.2 | 68.4 | 71 | 66.6 | 69 | 3 | 35-91/30 |
| | 3&4-Methylphenol | ND | | 192 | 128 | 67 | 126 | 66 | 2 | 32-85/29 |
| 88-75-5 | 2-Nitrophenol | ND | | 96.2 | 78.3 | 81 | 79.5 | 83 | 2 | 49-111/30 |
| 100-02-7 | 4-Nitrophenol | ND | | 192 | 84.3 | 44 | 86.5 | 45 | 3 | 13-55/31 |
| 87-86-5 | Pentachlorophenol | ND | | 192 | 181 | 94 | 183 | 95 | 1 | 57-118/26 |
| 108-95-2 | Phenol | ND | | 96.2 | 39.8 | 41 | 40.5 | 42 | 2 | 13-54/34 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 96.2 | 79.5 | 83 | 81.1 | 84 | 2 | 59-106/23 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 96.2 | 81.3 | 85 | 80.8 | 84 | 1 | 58-107/24 |
| 83-32-9 | Acenaphthene | ND | | 96.2 | 80.9 | 84 | 81.6 | 85 | 1 | 58-106/21 |
| 208-96-8 | Acenaphthylene | ND | | 96.2 | 78.8 | 82 | 79.7 | 83 | 1 | 58-105/21 |
| 120-12-7 | Anthracene | ND | | 96.2 | 81.6 | 85 | 80.4 | 84 | 1 | 65-108/19 |
| 56-55-3 | Benzo(a)anthracene | ND | | 96.2 | 82.9 | 86 | 81.8 | 85 | 1 | 63-111/19 |
| 50-32-8 | Benzo(a)pyrene | ND | | 96.2 | 82.2 | 85 | 81.3 | 85 | 1 | 62-106/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 96.2 | 85.5 | 89 | 83.8 | 87 | 2 | 63-109/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 96.2 | 85.7 | 89 | 82.4 | 86 | 4 | 61-111/21 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 96.2 | 86.8 | 90 | 87.5 | 91 | 1 | 64-111/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 96.2 | 83.8 | 87 | 81.0 | 84 | 3 | 64-107/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 96.2 | 86.0 | 89 | 84.3 | 88 | 2 | 59-114/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 96.2 | 79.4 | 83 | 78.8 | 82 | 1 | 34-98/27 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 96.2 | 79.2 | 82 | 79.8 | 83 | 1 | 54-105/24 |
| 106-47-8 | 4-Chloroaniline | ND | | 96.2 | 74.2 | 77 | 76.5 | 80 | 3 | 53-103/22 |
| 86-74-8 | Carbazole | ND | | 96.2 | 84.4 | 88 | 83.0 | 86 | 2 | 66-109/20 |
| 218-01-9 | Chrysene | ND | | 96.2 | 84.7 | 88 | 84.1 | 87 | 1 | 64-111/19 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 96.2 | 78.4 | 82 | 79.1 | 82 | 1 | 48-101/28 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 96.2 | 81.4 | 85 | 78.7 | 82 | 3 | 51-108/27 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 96.2 | 79.8 | 83 | 77.8 | 81 | 3 | 43-106/27 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 96.2 | 81.5 | 85 | 82.1 | 85 | 1 | 61-107/20 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 96.2 | 75.1 | 78 | 74.2 | 77 | 1 | 41-102/28 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 96.2 | 73.9 | 77 | 69.7 | 72 | 6 | 38-100/28 |

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler



| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MS | X000951.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| OP24004-MSD | X000952.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| F55407-9 | X000950.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |

The QC reported here applies to the following samples: Method: EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | F55407-9 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 96.2 | 73.3 | 76 | 70.4 | 73 | 4 | 40-100/28 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 96.2 | 82.1 | 85 | 81.9 | 85 | 0 | 60-109/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 96.2 | 78.7 | 82 | 80.3 | 84 | 2 | 58-104/21 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 96.2 | 68.7 | 71 | 69.0 | 72 | 0 | 57-105/25 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 96.2 | 81.2 | 84 | 83.9 | 87 | 3 | 62-112/20 |
| 132-64-9 | Dibenzofuran | ND | | 96.2 | 80.4 | 84 | 79.9 | 83 | 1 | 61-108/20 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 96.2 | 83.0 | 86 | 81.4 | 85 | 2 | 62-109/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 96.2 | 86.2 | 90 | 86.7 | 90 | 1 | 60-120/24 |
| 84-66-2 | Diethyl phthalate | ND | | 96.2 | 78.8 | 82 | 77.2 | 80 | 2 | 62-109/19 |
| 131-11-3 | Dimethyl phthalate | ND | | 96.2 | 82.8 | 86 | 82.8 | 86 | 0 | 63-106/19 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 96.2 | 86.2 | 90 | 86.1 | 90 | 0 | 59-116/21 |
| 206-44-0 | Fluoranthene | ND | | 96.2 | 83.9 | 87 | 83.3 | 87 | 1 | 65-114/21 |
| 86-73-7 | Fluorene | ND | | 96.2 | 82.0 | 85 | 81.6 | 85 | 0 | 61-106/19 |
| 118-74-1 | Hexachlorobenzene | ND | | 96.2 | 80.6 | 84 | 80.4 | 84 | 0 | 62-107/20 |
| 87-68-3 | Hexachlorobutadiene | ND | | 96.2 | 79.0 | 82 | 76.6 | 80 | 3 | 38-107/30 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 96.2 | 59.1 | 61 | 58.6 | 61 | 1 | 19-84/35 |
| 67-72-1 | Hexachloroethane | ND | | 96.2 | 73.8 | 77 | 70.7 | 74 | 4 | 35-101/29 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 96.2 | 84.0 | 87 | 80.0 | 83 | 5 | 61-113/20 |
| 78-59-1 | Isophorone | ND | | 96.2 | 84.0 | 87 | 84.6 | 88 | 1 | 56-111/26 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 96.2 | 79.8 | 83 | 78.1 | 81 | 2 | 56-112/26 |
| 88-74-4 | 2-Nitroaniline | ND | | 96.2 | 79.8 | 83 | 80.4 | 84 | 1 | 60-109/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 96.2 | 73.8 | 77 | 81.0 | 84 | 9 | 52-107/21 |
| 100-01-6 | 4-Nitroaniline | ND | | 96.2 | 79.7 | 83 | 79.9 | 83 | 0 | 59-111/21 |
| 91-20-3 | Naphthalene | ND | | 96.2 | 76.5 | 80 | 75.6 | 79 | 1 | 50-104/28 |
| 98-95-3 | Nitrobenzene | ND | | 96.2 | 78.8 | 82 | 77.9 | 81 | 1 | 52-105/28 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 96.2 | 78.8 | 82 | 77.8 | 81 | 1 | 51-104/28 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 96.2 | 77.4 | 80 | 77.4 | 80 | 0 | 57-110/19 |
| 85-01-8 | Phenanthrene | ND | | 96.2 | 81.9 | 85 | 81.7 | 85 | 0 | 65-108/20 |
| 129-00-0 | Pyrene | ND | | 96.2 | 84.5 | 88 | 83.9 | 87 | 1 | 60-113/20 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 96.2 | 77.9 | 81 | 74.9 | 78 | 4 | 45-104/28 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-9 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 54% | 53% | 24% | 14-62% |
| 4165-62-2 | Phenol-d5 | 39% | 40% | 14% | 10-40% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MS | X000951.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| OP24004-MSD | X000952.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| F55407-9 | X000950.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-9 | Limits |
|---|---|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 81% | 67% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 77% | 76% | 64% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 77% | 62% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 83% | 81% | 70% | 39-121% |

## 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:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1282-MB | QQ033243.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |



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

F55407-1, F55407-2, F55407-3, F55407-4

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 80% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 92% | 73-118% |

# Method Blank Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1284-MB | QQ033289.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |



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

F55407-5, F55407-9, F55407-10

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 83% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 96% | 73-118% |

# Method Blank Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1289-MB | QQ033388.D | 1 | 02/07/08 | NJ | n/a | n/a | GQQ1289 |



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

F55407-11

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 75% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 92% | 73-118% |

# Method Blank Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD3452-MB | CD082863.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |



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

F55407-6, F55407-7, F55407-8

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 93% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | 73-118% |

# Method Blank Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1736-MB | UV030210.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-2, F55407-3, F55407-4, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 93% | 70-130% |
| 460-00-4 | BFB | 90% | 70-130% |

# Method Blank Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1737-MB | UV030243.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-5

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 102% | 70-130% |
| 460-00-4 | BFB | 104% | 70-130% |

# Method Blank Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1738-MB | UV030282.D | 1 | 02/08/08 | MM | n/a | n/a | GUV1738 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-1

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 96% | 70-130% |
| 460-00-4 | BFB | 96% | 70-130% |

# Blank Spike Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1282-BS | QQ033242.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |



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

F55407-1, F55407-2, F55407-3, F55407-4

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 21.3 | 107 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.6 | 103 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 16.9 | 85 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 17.5 | 88 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.2 | 86 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 20.3 | 102 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 20.9 | 105 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.6 | 103 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 61.5 | 103 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 104% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | 73-118% |

# Blank Spike Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1284-BS | QQ033288.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |



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

F55407-5, F55407-9, F55407-10

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 21.5 | 108 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.6 | 103 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 16.8 | 84 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 17.2 | 86 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.1 | 86 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 20.5 | 103 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 21.0 | 105 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.7 | 104 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 61.5 | 103 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 107% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 99% | 73-118% |

# Blank Spike Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1289-BS | QQ033387.D | 1 | 02/07/08 | NJ | n/a | n/a | GQQ1289 |



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

F55407-11

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 21.6 | 108 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.9 | 105 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 16.6 | 83 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 17.3 | 87 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.0 | 85 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 20.8 | 104 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 20.7 | 104 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.9 | 105 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 62.5 | 104 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 108% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | 73-118% |

# Blank Spike Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GCD3452-BS | CD082862.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |



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

F55407-6, F55407-7, F55407-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 20.1 | 101 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.3 | 102 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 19.6 | 98 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 19.9 | 100 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 19.8 | 99 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 19.7 | 99 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 19.0 | 95 | 72-113 |
| 108-88-3 | Toluene | 20 | 19.7 | 99 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 60.3 | 101 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 98% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | 73-118% |

# Blank Spike Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1736-BS | UV030211.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-2, F55407-3, F55407-4, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | 480 | 603 | 126 | 70-130 |
| | C9- C12 Aliphatics (Unadj.) | 480 | 568 | 118 | 70-130 |
| | C9- C10 Aromatics (Unadj.) | 80 | 87.9 | 110 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 109% | 70-130% |
| 460-00-4 | BFB | 101% | 70-130% |

# Blank Spike Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1737-BS | UV030242.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-5

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | 480 | 574 | 120 | 70-130 |
| | C9- C12 Aliphatics (Unadj.) | 480 | 532 | 111 | 70-130 |
| | C9- C10 Aromatics (Unadj.) | 80 | 78.2 | 98 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 105% | 70-130% |
| 460-00-4 | BFB | 99% | 70-130% |

# Blank Spike Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1738-BS | UV030277.D | 1 | 02/08/08 | MM | n/a | n/a | GUV1738 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-1

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | 480 | 519 | 108 | 70-130 |
| | C9- C12 Aliphatics (Unadj.) | 480 | 528 | 110 | 70-130 |
| | C9- C10 Aromatics (Unadj.) | 80 | 84.4 | 106 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 113% | 70-130% |
| 460-00-4 | BFB | 111% | 70-130% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-1MS | QQ033250.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| F55407-1MSD | QQ033251.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |
| F55407-1 [a] | QQ033245.D | 1 | 02/01/08 | NJ | n/a | n/a | GQQ1282 |



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

F55407-1, F55407-2, F55407-3, F55407-4

| CAS No. | Compound | F55407-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 6.3 | | 20 | 27.3 | 105 | 26.9 | 103 | 1 | 80-120/10 |
| 108-90-7 | Chlorobenzene | ND | | 20 | 20.8 | 104 | 20.6 | 103 | 1 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | 27.0 | | 20 | 38.0 | 55* | 37.2 | 51* | 2 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | 5.5 | | 20 | 24.9 | 97 | 24.5 | 95 | 2 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | 3.8 | | 20 | 23.0 | 96 | 22.7 | 95 | 1 | 78-117/11 |
| 100-41-4 | Ethylbenzene | 37.6 | | 20 | 58.0 | 102 | 57.5 | 100 | 1 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | 5.8 | | 20 | 27.0 | 106 | 27.2 | 107 | 1 | 72-113/13 |
| 108-88-3 | Toluene | ND | | 20 | 20.4 | 102 | 20.2 | 101 | 1 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | 2.4 | J | 60 | 63.9 | 103 | 63.2 | 101 | 1 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 117% | 115% | 112% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | 94% | 94% | 73-118% |

(a) All hits confirmed by GC/MS.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55431-1MS | QQ033294.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |
| F55431-1MSD | QQ033295.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| F55431-1 | QQ033293.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |



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

F55407-5, F55407-9, F55407-10

| CAS No. | Compound | F55431-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1.0 | U | 20 | 21.1 | 106 | 21.1 | 106 | 0 | 80-120/10 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 20 | 20.4 | 102 | 20.4 | 102 | 0 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 | U | 20 | 16.9 | 85 | 16.7 | 84 | 1 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 | U | 20 | 17.1 | 86 | 17.2 | 86 | 1 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.0 | U | 20 | 17.1 | 86 | 16.9 | 85 | 1 | 78-117/11 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 20 | 20.1 | 101 | 20.2 | 101 | 0 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.0 | U | 20 | 20.7 | 104 | 21.0 | 105 | 1 | 72-113/13 |
| 108-88-3 | Toluene | 1.0 | U | 20 | 20.3 | 102 | 20.5 | 103 | 1 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | 3.0 | U | 60 | 60.6 | 101 | 61.0 | 102 | 1 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55431-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 108% | 108% | 88% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 98% | 99% | 95% | 73-118% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55518-1MS | QQ033393.D | 1 | 02/07/08 | NJ | n/a | n/a | GQQ1289 |
| F55518-1MSD | QQ033394.D | 1 | 02/07/08 | NJ | n/a | n/a | GQQ1289 |
| F55518-1 [a] | QQ033391.D | 1 | 02/07/08 | NJ | n/a | n/a | GQQ1289 |



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

F55407-11

| CAS No. | Compound | F55518-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | | 20 | 20.8 | 104 | 20.5 | 103 | 1 | 80-120/10 |
| 108-90-7 | Chlorobenzene | ND | | 20 | 20.0 | 100 | 19.8 | 99 | 1 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 20 | 16.0 | 80 | 15.9 | 80 | 1 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 20 | 16.6 | 83 | 16.4 | 82 | 1 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 20 | 16.3 | 82 | 16.2 | 81 | 1 | 78-117/11 |
| 100-41-4 | Ethylbenzene | ND | | 20 | 19.9 | 100 | 19.7 | 99 | 1 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 20 | 20.5 | 103 | 19.7 | 99 | 4 | 72-113/13 |
| 108-88-3 | Toluene | ND | | 20 | 20.1 | 101 | 19.9 | 100 | 1 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | ND | | 60 | 59.9 | 100 | 59.3 | 99 | 1 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55518-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 108% | 108% | 95% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 96% | 96% | 95% | 73-118% |

(a) Confirmation run.

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-6MS | CD082869.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |
| F55407-6MSD | CD082870.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |
| F55407-6 | CD082866.D | 1 | 02/12/08 | JM | n/a | n/a | GCD3452 |



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

F55407-6, F55407-7, F55407-8

| CAS No. | Compound | F55407-6 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | | 20 | 19.2 | 96 | 18.9 | 95 | 2 | 80-120/10 |
| 108-90-7 | Chlorobenzene | ND | | 20 | 19.7 | 99 | 19.4 | 97 | 2 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 20 | 18.7 | 94 | 18.3 | 92 | 2 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 20 | 19.4 | 97 | 18.8 | 94 | 3 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 20 | 19.1 | 96 | 18.7 | 94 | 2 | 78-117/11 |
| 100-41-4 | Ethylbenzene | ND | | 20 | 19.0 | 95 | 18.6 | 93 | 2 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | | 20 | 17.7 | 89 | 18.1 | 91 | 2 | 72-113/13 |
| 108-88-3 | Toluene | ND | | 20 | 18.8 | 94 | 18.4 | 92 | 2 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | ND | | 60 | 57.7 | 96 | 56.4 | 94 | 2 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-6 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 98% | 97% | 94% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | 94% | 94% | 73-118% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-7MS | UV030237.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| F55407-7MSD | UV030238.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| F55407-7 | UV030230.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55407-2, F55407-3, F55407-4, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | F55407-7 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | 480 | 516 | 108 | 514 | 107 | 0 | 70-130/50 |
| | C9- C12 Aliphatics (Unadj.) | ND | | 480 | 491 | 102 | 486 | 101 | 1 | 70-130/50 |
| | C9- C10 Aromatics (Unadj.) | ND | | 80 | 77.0 | 96 | 74.9 | 94 | 3 | 70-130/50 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-7 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 98% | 94% | 90% | 70-130% |
| 460-00-4 | BFB | 91% | 95% | 86% | 70-130% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55436-5MS | UV030259.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-5MSD | UV030260.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-5 | UV030258.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-5

| CAS No. | Compound | F55436-5 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | 480 | 554 | 115 | 529 | 110 | 5 | 70-130/50 |
| | C9- C12 Aliphatics (Unadj.) | ND | | 480 | 536 | 112 | 511 | 106 | 5 | 70-130/50 |
| | C9- C10 Aromatics (Unadj.) | 12.8 | J | 80 | 92.6 | 100 | 87.8 | 94 | 5 | 70-130/50 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55436-5 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 100% | 94% | 91% | 70-130% |
| 460-00-4 | BFB | 96% | 88% | 87% | 70-130% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-1MS | UV030280.D | 10 | 02/08/08 | MM | n/a | n/a | GUV1738 |
| F55407-1MSD | UV030281.D | 10 | 02/08/08 | MM | n/a | n/a | GUV1738 |
| F55407-1 | UV030279.D | 10 | 02/08/08 | MM | n/a | n/a | GUV1738 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55407-1

| CAS No. | Compound | F55407-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | 4800 | 5090 | 106 | 5000 | 104 | 2 | 70-130/50 |
| | C9- C12 Aliphatics (Unadj.) | 1950 | | 4800 | 6240 | 108 | 6140 | 106 | 2 | 70-130/50 |
| | C9- C10 Aromatics (Unadj.) | 1200 | | 800 | 1800 | 117 | 1730 | 108 | 4 | 70-130/50 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 109% | 108% | 109% | 70-130% |
| 460-00-4 | BFB | 126% | 106% | 113% | 70-130% |

# Duplicate Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-6DUP | UV030236.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |
| F55407-6 | UV030229.D | 1 | 02/06/08 | MM | n/a | n/a | GUV1736 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-2, F55407-3, F55407-4, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

| CAS No. | Compound | F55407-6 ug/l | Q | DUP ug/l | Q | RPD | Limits |
|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C12 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C10 Aromatics (Unadj.) | ND | | ND | | nc | |

| CAS No. | Surrogate Recoveries | DUP | F55407-6 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 92% | 87% | 70-130% |
| 460-00-4 | BFB | 85% | 80% | 70-130% |

# Duplicate Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55436-4DUP | UV030257.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-4 | UV030256.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-5

| CAS No. | Compound | F55436-4 ug/l | Q | DUP ug/l | Q | RPD | Limits |
|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C12 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C10 Aromatics (Unadj.) | ND | | ND | | nc | |

| CAS No. | Surrogate Recoveries | DUP | F55436-4 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 94% | 96% | 70-130% |
| 460-00-4 | BFB | 92% | 92% | 70-130% |

# Duplicate Summary



Job Number: F55407
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55407-1DUP | UV030278.D | 10 | 02/08/08 | MM | n/a | n/a | GUV1738 |
| F55407-1 | UV030279.D | 10 | 02/08/08 | MM | n/a | n/a | GUV1738 |



The QC reported here applies to the following samples: Method: MADEP VPH

F55407-1

| CAS No. | Compound | F55407-1 ug/l | Q | DUP ug/l | Q | RPD | Limits |
|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C12 Aliphatics (Unadj.) | 1950 | | 1060 | | 59* | |
| | C9- C10 Aromatics (Unadj.) | 1200 | | 866 | | 32* | |

| CAS No. | Surrogate Recoveries | DUP | F55407-1 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 109% | 109% | 70-130% |
| 460-00-4 | BFB | 107% | 113% | 70-130% |

## Misc. Forms



### Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

# Accutest Laboratories Southeast
## Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # F55407 PAGE 1 OF 1

Accutest Quote # | SKIFF#

**Client / Reporting Information**

Company Name: Accutest SouthEast
Address:
City: State: Zip:
Project Contact: E-mail:
Phone#:
Sampler(s) Name(s) (Printed):

**Project Information**

Project Name: F55407
Street:
City: State:
Project #:
Fax #:
Client Purchase Order #:

**Analytical Information**

BMAEPH

**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 | Time | Sampled By: | Matrix | Total # of Bottles | Other | HCl | NaOH | H2SO4 | Unpreserved | Methanol | DI Water | Witch | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 01/19/18 | 800 | | AQ | 2 | | | | X | | | | X | |
| | 2 | | 900 | | | | | | | | | | | | |
| | 3 | | 1000 | | | | | | | | | | | | |
| | 4 | | 1100 | | | | | | | | | | | | |
| | 5 | | 1200 | | | | | | | | | | | | |
| | 6 | | 1300 | | | | | | | | | | | | |
| | 7 | | 1400 | | | | | | | | | | | | |
| | 8 | | 1500 | | | | | | | | | | | | |
| | 9 | | 1530 | | | | | | | | | | | | |
| | 10 | | 1630 | | | | | | | | | | | | |

**TURNAROUND TIME (Business Days)**

Approved By / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 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) 15D
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

**Comments / Remarks**

AHE
AEBD

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 | 01/19 0700 | 2 7983 6566 6758 | 3 Fedex | 1/20/18 1015 | 4 Will Cahill |
| 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: 1 - 1.9°C
-2 2.0
3 - 1.2

6.1 6

F55407: Chain of Custody
Page 1 of 1
Accutest Labs of New England, Inc.

## GC Semi-volatiles

# QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F55407
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15160-MB | BC18342.D | 1 | 02/13/08 | DG | 02/05/08 | OP15160 | GBC1025 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 75% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 42% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 74% | 40-140% |

# Method Blank Summary



**Job Number:** F55407
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15213-MB | BC18461.D | 1 | 02/19/08 | DG | 02/14/08 | OP15213 | GBC1030 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55407-2

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 70% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 43% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 65% | 40-140% |

# Blank Spike/Blank Spike Duplicate Summary



Job Number: F55407
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15160-BS | BC18343.D | 1 | 02/13/08 | DG | 02/05/08 | OP15160 | GBC1025 |
| OP15160-BSD | BC18344.D | 1 | 02/13/08 | DG | 02/05/08 | OP15160 | GBC1025 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10



| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 800 | 823 | 103 | 799 | 100 | 3 | 40-140/25 |
| | C9-C18 Aliphatics | 300 | 228 | 76 | 229 | 76 | 0 | 40-140/25 |
| | C19-C36 Aliphatics | 400 | 363 | 91 | 359 | 90 | 1 | 40-140/25 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 84% | 84% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 79% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 55% | 54% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 72% | 73% | 40-140% |

| Sample | Compound | Col #1 | Col #2 | Breakthrough | Limit |
|---|---|---|---|---|---|
| OP15160-BS | 2-Methylnaphthalene | 34.8 | 0.080 | 0.2% | 5.0 |
| OP15160-BS | Naphthalene | 32.3 | 0.81 | 2.4% | 5.0 |
| OP15160-BSD | 2-Methylnaphthalene | 35.3 | 0.10 | 0.3% | 5.0 |
| OP15160-BSD | Naphthalene | 32.4 | 0.86 | 2.6% | 5.0 |

# Blank Spike/Blank Spike Duplicate Summary



Job Number: F55407
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15213-BS | BC18462.D | 1 | 02/19/08 | DG | 02/14/08 | OP15213 | GBC1030 |
| OP15213-BSD | BC18463.D | 1 | 02/19/08 | DG | 02/14/08 | OP15213 | GBC1030 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55407-2

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 800 | 689 | 86 | 779 | 97 | 12 | 40-140/25 |
| | C9-C18 Aliphatics | 300 | 168 | 56 | 217 | 72 | 25 | 40-140/25 |
| | C19-C36 Aliphatics | 400 | 328 | 82 | 423 | 106 | 25 | 40-140/25 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 79% | 77% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 79% | 73% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 48% | 53% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 71% | 64% | 40-140% |

| Sample | Compound | Col #1 | Col #2 | Breakthrough | Limit |
|---|---|---|---|---|---|
| OP15213-BS | 2-Methylnaphthalene | 26.4 | 0.026 | 0.1% | 5.0 |
| OP15213-BS | Naphthalene | 24.8 | 0.042 | 0.2% | 5.0 |
| OP15213-BSD | 2-Methylnaphthalene | 28.7 | 0.029 | 0.1% | 5.0 |
| OP15213-BSD | Naphthalene | 26.5 | 0.052 | 0.2% | 5.0 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55407
Account: ALSE Accutest Laboratories Southeast, Inc.
Project: ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15160-MS | BC18345.D | 1 | 02/14/08 | DG | 02/05/08 | OP15160 | GBC1025 |
| OP15160-MSD | BC18346.D | 1 | 02/14/08 | DG | 02/05/08 | OP15160 | GBC1025 |
| F55407-3 | BC18349.D | 1 | 02/14/08 | DG | 02/05/08 | OP15160 | GBC1025 |

The QC reported here applies to the following samples: Method: MADEP EPH REV 1.1

F55407-1, F55407-2, F55407-3, F55407-4, F55407-5, F55407-6, F55407-7, F55407-8, F55407-9, F55407-10

7.3

7

| CAS No. | Compound | F55407-3 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | | 1450 | 1350 | 93 | 1370 | 94 | 1 | 50-150/30 [a] |
| | C9-C18 Aliphatics | ND | | 545 | 369 | 68 | 364 | 67 | 1 | 40-140/25 |
| | C19-C36 Aliphatics | ND | | 727 | 614 | 84 | 645 | 89 | 5 | 40-140/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-3 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 78% | 76% | 69% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 80% | 84% | 48% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 51% | 47% | 43% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 71% | 76% | 46% | 40-140% |

(a) Advisory control limits.

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55407
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15213-MS | BC18427.D | 1 | 02/18/08 | DG | 02/14/08 | OP15213 | GBC1029 |
| OP15213-MSD | BC18428.D | 1 | 02/18/08 | DG | 02/14/08 | OP15213 | GBC1029 |
| M70811-11 | BC18429.D | 1 | 02/18/08 | DG | 02/14/08 | OP15213 | GBC1029 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55407-2

| CAS No. | Compound | M70811-11 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | | 800 | 757 | 95 | 695 | 87 | 9 | 50-150/30 [a] |
| | C9-C18 Aliphatics | ND | | 300 | 223 | 74 | 182 | 61 | 20 | 40-140/25 |
| | C19-C36 Aliphatics | ND | | 400 | 381 | 95 | 360 | 90 | 6 | 40-140/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | M70811-11 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 84% | 75% | 71% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 77% | 79% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 42% | 43% | 40% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 68% | 69% | 67% | 40-140% |

(a) Advisory control limits.

7.3

7

Southeast ACCUTEST Laboratories

IT'S ALL IN THE CHEMISTRY

02/26/08

## Technical Report for

Shaw E & I, Inc.

Camp Lejeune-MCAS-Rapid Refueler

126006

Accutest Job Number: F55436

Sampling Date: 01/30/08



Report to:

Shaw E & I, Inc.

natasha.sullivan@shawgrp.com

ATTN: Natasha Sullivan

Total number of pages in report: 77

ACCREDITED IN ACCORDANCE WITH nelac

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

Harry Behzadi, Ph.D.
Laboratory Director

ACCUTEST LABORATORIES 50 YEARS 1956-2006

Client Service contact: Heather Wandrey 407-425-6700

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

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Test results relate only to samples analyzed.

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1

# Sample Summary

Shaw E & I, Inc.

Job No: F55436

Camp Lejeune-MCAS-Rapid Refueler
Project No: 126006

| Sample Number | Collected Date | Time By | Received | Matrix Code | Matrix Type | Client Sample ID |
|---|---|---|---|---|---|---|
| F55436-1 | 01/30/08 | 13:00 MM | 02/01/08 | AQ | Ground Water | USTAS511-MW03 |
| F55436-2 | 01/30/08 | 13:45 MM | 02/01/08 | AQ | Ground Water | USTAS511-MW07 |
| F55436-3 | 01/30/08 | 14:30 MM | 02/01/08 | AQ | Ground Water | USTAS511-MW08 |
| F55436-4 | 01/30/08 | 16:00 MM | 02/01/08 | AQ | Ground Water | USTAS527-DW06 |
| F55436-5 | 01/30/08 | 16:30 MM | 02/01/08 | AQ | Ground Water | USTRR-MW07 |
| F55436-6 | 01/30/08 | 17:30 MM | 02/01/08 | AQ | Ground Water | USTRR-MW09 |
| F55436-7 | 01/30/08 | 18:00 MM | 02/01/08 | AQ | Ground Water | USTRR-MW06 |
| F55436-8 | 01/30/08 | 00:00 MM | 02/01/08 | AQ | Trip Blank Water | TRIP BLANK 013108 |

## Sample Results

### Report of Analysis

Accutest LabLink@73654 11:32 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW03 | | |
| **Lab Sample ID:** | F55436-1 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000954.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 0.97 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 0.97 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 0.97 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.9 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.9 | 0.97 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 0.97 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW03 | | |
| **Lab Sample ID:** | F55436-1 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 1.6 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.9 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 0.97 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 0.97 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 25% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 15% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW03 | | |
| **Lab Sample ID:** | F55436-1 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 67% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 63% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 68% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73654 11:32 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW03 | | |
| **Lab Sample ID:** | F55436-1 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033301.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 84% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates 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 LabLink@73654 11:32 26-Feb-2008

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW03 | | |
| **Lab Sample ID:** | F55436-1 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030251.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 85% | | 70-130% |
| 460-00-4 | BFB | 81% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW03 | | |
| **Lab Sample ID:** | F55436-1 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18358.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 67% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 82% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 43% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 72% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW07 | | |
| **Lab Sample ID:** | F55436-2 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000955.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW07 | | |
| **Lab Sample ID:** | F55436-2 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 28% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 73% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW07 | | |
| **Lab Sample ID:** | F55436-2 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 80% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 80% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW07 | | |
| **Lab Sample ID:** | F55436-2 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033302.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 82% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

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

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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW07 | | |
| **Lab Sample ID:** | F55436-2 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030254.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 94% | | 70-130% |
| 460-00-4 | BFB | 90% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW07 | | |
| **Lab Sample ID:** | F55436-2 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18359.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 72% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 81% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 44% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 69% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW08 | | |
| **Lab Sample ID:** | F55436-3 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000956.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW08 | | |
| **Lab Sample ID:** | F55436-3 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 29% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 17% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 70% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS511-MW08 | | |
| **Lab Sample ID:** | F55436-3 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 79% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 72% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 65% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW08 | | |
| **Lab Sample ID:** | F55436-3 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033303.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 85% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW08 | | |
| **Lab Sample ID:** | F55436-3 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030255.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

MADEP VPH List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 92% | | 70-130% |
| 460-00-4 | BFB | 86% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS511-MW08 | | |
| **Lab Sample ID:** | F55436-3 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18442.D | 1 | 02/18/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1029 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 65% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 74% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 40% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 64% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW06 | | |
| **Lab Sample ID:** | F55436-4 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000957.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW06 | | |
| **Lab Sample ID:** | F55436-4 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene [a] | ND | 43 | 43 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 34% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 20% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 78% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTAS527-DW06 | | |
| **Lab Sample ID:** | F55436-4 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 79% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 71% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 88 | Phenol, 3-(1,1-dimethylethyl)-4-me | 7.91 | 35 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 35 | ug/l | J |

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW06 | | |
| **Lab Sample ID:** | F55436-4 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033304.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 82% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW06 | | |
| **Lab Sample ID:** | F55436-4 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030256.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 96% | | 70-130% |
| 460-00-4 | BFB | 92% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTAS527-DW06 | | |
| **Lab Sample ID:** | F55436-4 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18361.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 73% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 81% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 43% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 90% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW07 | | |
| **Lab Sample ID:** | F55436-5 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000958.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1030 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.7 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.9 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.9 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.7 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.7 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.9 | 0.97 | ug/l | |
| | 3&4-Methylphenol | ND | 4.9 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.9 | 0.97 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.7 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.7 | ug/l | |
| 108-95-2 | Phenol | ND | 4.9 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.9 | 0.97 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.9 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.9 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.9 | 0.97 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.9 | 0.97 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.9 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.9 | 0.97 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.9 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.9 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.9 | 0.97 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.9 | 0.97 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.9 | 0.97 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.9 | 0.97 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW07 | | |
| **Lab Sample ID:** | F55436-5 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.9 | 0.97 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.9 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.9 | 1.6 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.9 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.9 | 0.97 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.7 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.9 | 0.97 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.9 | 0.97 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.9 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.9 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.9 | 0.97 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.9 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.9 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.9 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.9 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.9 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.9 | 0.97 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.9 | 0.97 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.9 | 0.97 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.7 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | 2.1 | 4.9 | 1.2 | ug/l | J |
| 98-95-3 | Nitrobenzene | ND | 4.9 | 0.97 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.9 | 0.97 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.9 | 0.97 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.9 | 0.97 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.9 | 0.97 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.9 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 26% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 67% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW07 | | |
| **Lab Sample ID:** | F55436-5 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 63% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 58% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 66% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 10544 | Cyclic octaatomic sulfur | 12.55 | 8.9 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 8.9 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW07 | | |
| **Lab Sample ID:** | F55436-5 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033305.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 92% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 97% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW07 | | |
| **Lab Sample ID:** | F55436-5 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030258.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 12.8 | 20 | 10 | ug/l | J |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 91% | | 70-130% |
| 460-00-4 | BFB | 87% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
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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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW07 | | |
| **Lab Sample ID:** | F55436-5 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18362.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 78% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 84% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 44% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 72% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW09 | | |
| **Lab Sample ID:** | F55436-6 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000959.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW09 | | |
| **Lab Sample ID:** | F55436-6 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | 1.4 | 4.8 | 0.96 | ug/l | J |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 28% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 71% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW09 | | |
| **Lab Sample ID:** | F55436-6 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 70% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 68% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 63% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 10544 | Cyclic octaatomic sulfur | 12.56 | 53 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 53 | ug/l | J |

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

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

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW09 | | |
| **Lab Sample ID:** | F55436-6 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033306.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | ND | 1.0 | 0.50 | ug/l | |
| 108-90-7 | Chlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene [a] | ND | 2.0 | 2.0 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 1.0 | 0.50 | ug/l | |
| 100-41-4 | Ethylbenzene | ND | 1.0 | 0.50 | ug/l | |
| 1634-04-4 | Methyl Tert Butyl Ether | ND | 1.0 | 0.50 | ug/l | |
| 108-88-3 | Toluene | ND | 1.0 | 0.50 | ug/l | |
| 1330-20-7 | Xylenes (total) | ND | 3.0 | 1.0 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 95% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 96% | | 73-118% |

(a) Elevated reporting limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW09 | | |
| **Lab Sample ID:** | F55436-6 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030249.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | 74.8 | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | 41.0 | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 98% | | 70-130% |
| 460-00-4 | BFB | 104% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW09 | | |
| **Lab Sample ID:** | F55436-6 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18364.D | 1 | 02/14/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1025 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 68% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 40% | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 66% | | 40-140% |

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW06 | | |
| **Lab Sample ID:** | F55436-7 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | X000960.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1040 ml | 1.0 ml |
| Run #2 | | |

**ABN TCL List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 24 | 9.6 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 4.8 | 1.9 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 4.8 | 1.9 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 24 | 9.6 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 9.6 | 1.9 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 4.8 | 0.96 | ug/l | |
| | 3&4-Methylphenol | ND | 4.8 | 1.2 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 4.8 | 0.96 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 24 | 9.6 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 24 | 9.6 | ug/l | |
| 108-95-2 | Phenol | ND | 4.8 | 1.9 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 4.8 | 0.96 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 4.8 | 1.3 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 4.8 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 4.8 | 0.96 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 4.8 | 0.96 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 4.8 | 0.96 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 4.8 | 1.2 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 4.8 | 1.9 | ug/l | |
| 86-74-8 | Carbazole | ND | 4.8 | 0.96 | ug/l | |
| 218-01-9 | Chrysene | ND | 4.8 | 0.96 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 4.8 | 0.96 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 4.8 | 0.96 | ug/l | |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW06 | | |
| **Lab Sample ID:** | F55436-7 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

ABN TCL List

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 4.8 | 0.96 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 4.8 | 1.2 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 4.8 | 1.5 | ug/l | |
| 106-46-7 | 1,4-Dichlorobenzene | ND | 4.8 | 1.4 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 4.8 | 0.96 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 9.6 | 1.9 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 4.8 | 0.96 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 4.8 | 0.96 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 4.8 | 1.9 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 4.8 | 1.9 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 4.8 | 0.96 | ug/l | |
| 86-73-7 | Fluorene | ND | 4.8 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 4.8 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 4.8 | 1.6 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 4.8 | 1.4 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 4.8 | 1.8 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 4.8 | 0.96 | ug/l | |
| 78-59-1 | Isophorone | ND | 4.8 | 0.96 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 4.8 | 0.96 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 9.6 | 1.9 | ug/l | |
| 91-20-3 | Naphthalene | ND | 4.8 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 4.8 | 0.96 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 4.8 | 0.96 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 4.8 | 0.96 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 4.8 | 0.96 | ug/l | |
| 129-00-0 | Pyrene | ND | 4.8 | 0.96 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 4.8 | 1.4 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 26% | | 14-62% |
| 4165-62-2 | Phenol-d5 | 16% | | 10-40% |
| 118-79-6 | 2,4,6-Tribromophenol | 66% | | 33-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW06 | | |
| **Lab Sample ID:** | F55436-7 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 625 EPA 625 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

**ABN TCL List**

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 4165-60-0 | Nitrobenzene-d5 | 69% | | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 62% | | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 72% | | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| 10544 | Cyclic octaatomic sulfur | 12.56 | 15 | ug/l | JN |
| | Total TIC, Semi-Volatile | | 15 | ug/l | J |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW06 | | |
| **Lab Sample ID:** | F55436-7 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033307.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 84% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 95% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration 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:** | USTRR-MW06 | | |
| **Lab Sample ID:** | F55436-7 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP VPH | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | UV030250.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| Run #2 | | | | | | | |

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

**MADEP VPH List**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 92% | | 70-130% |
| 460-00-4 | BFB | 98% | | 70-130% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | USTRR-MW06 | | |
| **Lab Sample ID:** | F55436-7 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Ground Water | **Date Received:** | 02/01/08 |
| **Method:** | MADEP EPH REV 1.1 SW846 3510C | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 [a] | BC18443.D | 1 | 02/18/08 | AMA | 02/05/08 | M:OP15160 | M:GBC1029 |
| Run #2 | | | | | | | |

| | Initial Volume | Final Volume |
|---|---|---|
| Run #1 | 1000 ml | 2.0 ml |
| Run #2 | | |

**Extractable TPHC Ranges**

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 57% | | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 70% | | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 39% [b] | | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 60% | | 40-140% |

(a) Sample formed emulsion on extraction. Analysis performed at Accutest Laboratories, Marlborough, MA.
(b) Outside control limits due to possible matrix interference. Confirmed by refractionation.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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# Report of Analysis



| | | | |
|---|---|---|---|
| **Client Sample ID:** | TRIP BLANK 013108 | | |
| **Lab Sample ID:** | F55436-8 | **Date Sampled:** | 01/30/08 |
| **Matrix:** | AQ - Trip Blank Water | **Date Received:** | 02/01/08 |
| **Method:** | EPA 602 | **Percent Solids:** | n/a |
| **Project:** | Camp Lejeune-MCAS-Rapid Refueler | | |

| | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| Run #1 | QQ033308.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| Run #2 | | | | | | | |

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

**Purgeable Aromatics, Full List**

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

| CAS No. | Surrogate Recoveries | Run# 1 | Run# 2 | Limits |
|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 79% | | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 94% | | 73-118% |

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

## Misc. Forms

# Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Chain of Custody

COC Number:
126006-RR-013108

Shaw
Shaw Environmental & Infrastructure, Inc.

F55436

# CHAIN-OF-CUSTODY RECORD

**Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390**

Receiving LAB:Accutest

| Project Name | Project Location | | |
|---|---|---|---|
| CAMP LEJEUNE - Rapid Refueler | CAMP LEJEUNE, NC | | |
| **Project Number** | **Contact** | **P.O. Number** | **Reviewed by** |
| 126006 | Mark Martin | | |
| **Client Rep** | **Project Manager** | | |
| US NAVY - LANTDIV | Joe Colella | | |

| Item No. | Sample Number | Date | Time | Comp | Grab | Sample Description | Number of Containers | Analysis Desired: VOC 602 | 625 | MADEP EPH | MADEP VPH |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | USTAS511-MW03 | 1/30/08 | 13:00 | | X | USTAS511-MW03 | 10 | X | X | X | X |
| 2 | USTAS511-MW07 | 1/30/08 | 13:45 | | X | USTAS511-MW07 | 10 | X | X | X | X |
| 3 | USTAS511-MW08 | 1/30/08 | 14:30 | | X | USTAS511-MW08 | 10 | X | X | X | X |
| 4 | USTAS527-DW06 | 1/30/08 | 16:00 | | X | USTAS527-DW06 | 10 | X | X | X | X |
| 5 | USTRR-MW07 | 1/30/08 | 16:30 | | X | USTRR-MW07 | 10 | X | X | X | X |
| 6 | USTRR-MW09 | 1/30/08 | 17:30 | | X | USTRR-MW09 | 10 | X | X | X | X |
| 7 | USTRR-MW06 | 1/30/08 | 18:00 | | X | USTRR-MW06 | 10 | X | X | X | X |
| 8 | Trip Blank 013008 | 1/30/08 | | | X | Trip Blank | 2 | X | | | |
| 9 | | | | | | | | | | | |
| 10 | | | | | | | | | | | |

| Transfer Number | Item Number | Transfers Relinquished By | Transfers Accepted By | Date | Time | Remarks |
|---|---|---|---|---|---|---|
| 1 | 1 -- 8 | | FedEx | 1/31/08 | 16:00 | **14 Day TAT** |
| 2 | | FX | | 2.1.08 | 09:30 | FedEx 8639 0322 1997, 8639 0322 2000, 8639 0322 2011 |
| 3 | | | | | | |

2.0 2.6 2.4

3.1 3

**F55436: Chain of Custody**
**Page 1 of 2**


ACCUTEST
F55436

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F55436 CLIENT: Shaw PROJECT: Camp Lejeune

DATE/TIME RECEIVED: 2-1-08 09:30 # OF COOLERS RECEIVED: 3 COOLER TEMPS: 2.0 2.6 2.4

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

AIRBILL NUMBERS: 8639 0322 1997

### 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 RECEIVED IN COOLER

### 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

### SAMPLE INFORMATION

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

( APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

### MISC. INFORMATION

NUMBER OF ENCORES ? Ø

NUMBER OF 5035 FIELD KITS ? Ø

NUMBER OF LAB FILTERED METALS ? Ø

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE E.T. 2-1-08 TECHNICIAN SIGNATURE/DATE VC 2-1-08 ASBD 12/17/07

3.1 3

F55436: Chain of Custody
Page 2 of 2

## 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:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | X000941.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 1.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 1.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 1.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 5.0 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 5.0 | 1.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.6 | ug/l | |

# Method Blank Summary



Job Number: F55436
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | X000941.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



The QC reported here applies to the following samples: Method: EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 1.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 1.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 35% | 14-62% |
| 4165-62-2 | Phenol-d5 | 22% | 10-40% |

# Method Blank Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | X000941.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 70% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 72% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 73% | 39-121% |

| CAS No. | Tentatively Identified Compounds | R.T. | Est. Conc. | Units | Q |
|---|---|---|---|---|---|
| | Total TIC, Semi-Volatile [a] | | 0 | ug/l | |

(a) No TICs detected.

# Method Blank Summary



Job Number: F55436
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | R12638.D | 1 | 02/08/08 | NJ | 02/05/08 | OP24004 | SR581 |



The QC reported here applies to the following samples: Method: EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | 25 | 10 | ug/l | |
| 95-57-8 | 2-Chlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | 5.0 | 2.0 | ug/l | |
| 120-83-2 | 2,4-Dichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 105-67-9 | 2,4-Dimethylphenol | ND | 5.0 | 2.0 | ug/l | |
| 51-28-5 | 2,4-Dinitrophenol | ND | 25 | 10 | ug/l | |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | 10 | 2.0 | ug/l | |
| 95-48-7 | 2-Methylphenol | ND | 5.0 | 1.0 | ug/l | |
| | 3&4-Methylphenol | ND | 5.0 | 1.3 | ug/l | |
| 88-75-5 | 2-Nitrophenol | ND | 5.0 | 1.0 | ug/l | |
| 100-02-7 | 4-Nitrophenol | ND | 25 | 10 | ug/l | |
| 87-86-5 | Pentachlorophenol | ND | 25 | 10 | ug/l | |
| 108-95-2 | Phenol | ND | 5.0 | 2.0 | ug/l | |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | 5.0 | 1.0 | ug/l | |
| 83-32-9 | Acenaphthene | ND | 5.0 | 1.4 | ug/l | |
| 208-96-8 | Acenaphthylene | ND | 5.0 | 1.1 | ug/l | |
| 120-12-7 | Anthracene | ND | 5.0 | 1.0 | ug/l | |
| 56-55-3 | Benzo(a)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 50-32-8 | Benzo(a)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 205-99-2 | Benzo(b)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 191-24-2 | Benzo(g,h,i)perylene | ND | 5.0 | 1.0 | ug/l | |
| 207-08-9 | Benzo(k)fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | 5.0 | 1.2 | ug/l | |
| 85-68-7 | Butyl benzyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 100-51-6 | Benzyl Alcohol | ND | 5.0 | 1.0 | ug/l | |
| 91-58-7 | 2-Chloronaphthalene | ND | 5.0 | 1.3 | ug/l | |
| 106-47-8 | 4-Chloroaniline | ND | 5.0 | 2.0 | ug/l | |
| 86-74-8 | Carbazole | ND | 5.0 | 1.0 | ug/l | |
| 218-01-9 | Chrysene | ND | 5.0 | 1.0 | ug/l | |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | 5.0 | 1.0 | ug/l | |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | 5.0 | 1.0 | ug/l | |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | 5.0 | 1.3 | ug/l | |
| 95-50-1 | 1,2-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 541-73-1 | 1,3-Dichlorobenzene | ND | 5.0 | 1.6 | ug/l | |

# Method Blank Summary

**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | R12638.D | 1 | 02/08/08 | NJ | 02/05/08 | OP24004 | SR581 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | 5.0 | 1.5 | ug/l | |
| 121-14-2 | 2,4-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 606-20-2 | 2,6-Dinitrotoluene | ND | 5.0 | 1.0 | ug/l | |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | 10 | 2.0 | ug/l | |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | 5.0 | 1.0 | ug/l | |
| 132-64-9 | Dibenzofuran | ND | 5.0 | 1.0 | ug/l | |
| 84-74-2 | Di-n-butyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-84-0 | Di-n-octyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 84-66-2 | Diethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 131-11-3 | Dimethyl phthalate | ND | 5.0 | 2.0 | ug/l | |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | 5.0 | 2.0 | ug/l | |
| 206-44-0 | Fluoranthene | ND | 5.0 | 1.0 | ug/l | |
| 86-73-7 | Fluorene | ND | 5.0 | 1.2 | ug/l | |
| 118-74-1 | Hexachlorobenzene | ND | 5.0 | 1.2 | ug/l | |
| 87-68-3 | Hexachlorobutadiene | ND | 5.0 | 1.7 | ug/l | |
| 77-47-4 | Hexachlorocyclopentadiene | ND | 5.0 | 1.5 | ug/l | |
| 67-72-1 | Hexachloroethane | ND | 5.0 | 1.9 | ug/l | |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | 5.0 | 1.0 | ug/l | |
| 78-59-1 | Isophorone | ND | 5.0 | 1.0 | ug/l | |
| 91-57-6 | 2-Methylnaphthalene | ND | 5.0 | 1.0 | ug/l | |
| 88-74-4 | 2-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 99-09-2 | 3-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 100-01-6 | 4-Nitroaniline | ND | 10 | 2.0 | ug/l | |
| 91-20-3 | Naphthalene | ND | 5.0 | 1.2 | ug/l | |
| 98-95-3 | Nitrobenzene | ND | 5.0 | 1.0 | ug/l | |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | 5.0 | 1.0 | ug/l | |
| 86-30-6 | N-Nitrosodiphenylamine | ND | 5.0 | 1.0 | ug/l | |
| 85-01-8 | Phenanthrene | ND | 5.0 | 1.0 | ug/l | |
| 129-00-0 | Pyrene | ND | 5.0 | 1.0 | ug/l | |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | 5.0 | 1.5 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 33% | 14-62% |
| 4165-62-2 | Phenol-d5 | 21% | 10-40% |

# Method Blank Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MB | R12638.D | 1 | 02/08/08 | NJ | 02/05/08 | OP24004 | SR581 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 68% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 67% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 71% | 39-121% |

| 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:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-BS | X000940.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | 100 | 15.7 | 16 | 10-50 |
| 95-57-8 | 2-Chlorophenol | 50 | 35.0 | 70 | 44-103 |
| 59-50-7 | 4-Chloro-3-methyl phenol | 50 | 36.6 | 73 | 53-105 |
| 120-83-2 | 2,4-Dichlorophenol | 50 | 38.7 | 77 | 53-108 |
| 105-67-9 | 2,4-Dimethylphenol | 50 | 32.3 | 65 | 37-91 |
| 51-28-5 | 2,4-Dinitrophenol | 100 | 70.7 | 71 | 37-111 |
| 534-52-1 | 4,6-Dinitro-o-cresol | 100 | 82.6 | 83 | 62-115 |
| 95-48-7 | 2-Methylphenol | 50 | 29.1 | 58 | 35-91 |
| | 3&4-Methylphenol | 100 | 53.7 | 54 | 32-85 |
| 88-75-5 | 2-Nitrophenol | 50 | 39.7 | 79 | 49-111 |
| 100-02-7 | 4-Nitrophenol | 100 | 26.6 | 27 | 13-55 |
| 87-86-5 | Pentachlorophenol | 100 | 88.2 | 88 | 57-118 |
| 108-95-2 | Phenol | 50 | 14.3 | 29 | 13-54 |
| 95-95-4 | 2,4,5-Trichlorophenol | 50 | 40.2 | 80 | 59-106 |
| 88-06-2 | 2,4,6-Trichlorophenol | 50 | 40.6 | 81 | 58-107 |
| 83-32-9 | Acenaphthene | 50 | 41.1 | 82 | 58-106 |
| 208-96-8 | Acenaphthylene | 50 | 40.2 | 80 | 58-105 |
| 120-12-7 | Anthracene | 50 | 40.8 | 82 | 65-108 |
| 56-55-3 | Benzo(a)anthracene | 50 | 41.6 | 83 | 63-111 |
| 50-32-8 | Benzo(a)pyrene | 50 | 41.4 | 83 | 62-106 |
| 205-99-2 | Benzo(b)fluoranthene | 50 | 41.4 | 83 | 63-109 |
| 191-24-2 | Benzo(g,h,i)perylene | 50 | 41.4 | 83 | 61-111 |
| 207-08-9 | Benzo(k)fluoranthene | 50 | 43.2 | 86 | 64-111 |
| 101-55-3 | 4-Bromophenyl phenyl ether | 50 | 41.0 | 82 | 64-107 |
| 85-68-7 | Butyl benzyl phthalate | 50 | 41.5 | 83 | 59-114 |
| 100-51-6 | Benzyl Alcohol | 50 | 32.7 | 65 | 34-98 |
| 91-58-7 | 2-Chloronaphthalene | 50 | 40.1 | 80 | 54-105 |
| 106-47-8 | 4-Chloroaniline | 50 | 39.5 | 79 | 53-103 |
| 86-74-8 | Carbazole | 50 | 42.2 | 84 | 66-109 |
| 218-01-9 | Chrysene | 50 | 42.2 | 84 | 64-111 |
| 111-91-1 | bis(2-Chloroethoxy)methane | 50 | 40.0 | 80 | 48-101 |
| 111-44-4 | bis(2-Chloroethyl)ether | 50 | 41.0 | 82 | 51-108 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | 50 | 40.2 | 80 | 43-106 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | 50 | 41.1 | 82 | 61-107 |
| 95-50-1 | 1,2-Dichlorobenzene | 50 | 32.1 | 64 | 41-102 |
| 541-73-1 | 1,3-Dichlorobenzene | 50 | 30.2 | 60 | 38-100 |

# Blank Spike Summary

Job Number: F55436
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler



| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-BS | X000940.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |

The QC reported here applies to the following samples: Method: EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | 50 | 30.7 | 61 | 40-100 |
| 121-14-2 | 2,4-Dinitrotoluene | 50 | 42.0 | 84 | 60-109 |
| 606-20-2 | 2,6-Dinitrotoluene | 50 | 40.1 | 80 | 58-104 |
| 91-94-1 | 3,3'-Dichlorobenzidine | 50 | 34.5 | 69 | 57-105 |
| 53-70-3 | Dibenzo(a,h)anthracene | 50 | 40.9 | 82 | 62-112 |
| 132-64-9 | Dibenzofuran | 50 | 40.5 | 81 | 61-108 |
| 84-74-2 | Di-n-butyl phthalate | 50 | 41.2 | 82 | 62-109 |
| 117-84-0 | Di-n-octyl phthalate | 50 | 41.7 | 83 | 60-120 |
| 84-66-2 | Diethyl phthalate | 50 | 39.8 | 80 | 62-109 |
| 131-11-3 | Dimethyl phthalate | 50 | 41.7 | 83 | 63-106 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | 50 | 42.0 | 84 | 59-116 |
| 206-44-0 | Fluoranthene | 50 | 42.1 | 84 | 65-114 |
| 86-73-7 | Fluorene | 50 | 41.4 | 83 | 61-106 |
| 118-74-1 | Hexachlorobenzene | 50 | 40.9 | 82 | 62-107 |
| 87-68-3 | Hexachlorobutadiene | 50 | 31.5 | 63 | 38-107 |
| 77-47-4 | Hexachlorocyclopentadiene | 50 | 26.5 | 53 | 19-84 |
| 67-72-1 | Hexachloroethane | 50 | 28.6 | 57 | 35-101 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | 50 | 40.2 | 80 | 61-113 |
| 78-59-1 | Isophorone | 50 | 42.5 | 85 | 56-111 |
| 91-57-6 | 2-Methylnaphthalene | 50 | 39.5 | 79 | 56-112 |
| 88-74-4 | 2-Nitroaniline | 50 | 42.6 | 85 | 60-109 |
| 99-09-2 | 3-Nitroaniline | 50 | 41.4 | 83 | 52-107 |
| 100-01-6 | 4-Nitroaniline | 50 | 41.8 | 84 | 59-111 |
| 91-20-3 | Naphthalene | 50 | 36.5 | 73 | 50-104 |
| 98-95-3 | Nitrobenzene | 50 | 40.1 | 80 | 52-105 |
| 621-64-7 | N-Nitroso-di-n-propylamine | 50 | 39.8 | 80 | 51-104 |
| 86-30-6 | N-Nitrosodiphenylamine | 50 | 38.5 | 77 | 57-110 |
| 85-01-8 | Phenanthrene | 50 | 41.7 | 83 | 65-108 |
| 129-00-0 | Pyrene | 50 | 42.1 | 84 | 60-113 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 50 | 34.0 | 68 | 45-104 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 40% | 14-62% |
| 4165-62-2 | Phenol-d5 | 28% | 10-40% |

# Blank Spike Summary

**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-BS | X000940.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 77% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 76% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 75% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 72% | 39-121% |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55436
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler



| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MS | X000951.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| OP24004-MSD | X000952.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| F55407-9 | X000950.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |

The QC reported here applies to the following samples: Method: EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | F55407-9 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 65-85-0 | Benzoic Acid | ND | | 192 | 71.5 | 37 | 58.8 | 31 | 19 | 10-50/40 |
| 95-57-8 | 2-Chlorophenol | ND | | 96.2 | 74.0 | 77 | 71.9 | 75 | 3 | 44-103/29 |
| 59-50-7 | 4-Chloro-3-methyl phenol | ND | | 96.2 | 77.6 | 81 | 76.1 | 79 | 2 | 53-105/24 |
| 120-83-2 | 2,4-Dichlorophenol | ND | | 96.2 | 78.5 | 82 | 77.8 | 81 | 1 | 53-108/26 |
| 105-67-9 | 2,4-Dimethylphenol | ND | | 96.2 | 63.9 | 66 | 63.8 | 66 | 0 | 37-91/28 |
| 51-28-5 | 2,4-Dinitrophenol | ND | | 192 | 164 | 85 | 163 | 85 | 1 | 37-111/30 |
| 534-52-1 | 4,6-Dinitro-o-cresol | ND | | 192 | 171 | 89 | 171 | 89 | 0 | 62-115/26 |
| 95-48-7 | 2-Methylphenol | ND | | 96.2 | 68.4 | 71 | 66.6 | 69 | 3 | 35-91/30 |
| | 3&4-Methylphenol | ND | | 192 | 128 | 67 | 126 | 66 | 2 | 32-85/29 |
| 88-75-5 | 2-Nitrophenol | ND | | 96.2 | 78.3 | 81 | 79.5 | 83 | 2 | 49-111/30 |
| 100-02-7 | 4-Nitrophenol | ND | | 192 | 84.3 | 44 | 86.5 | 45 | 3 | 13-55/31 |
| 87-86-5 | Pentachlorophenol | ND | | 192 | 181 | 94 | 183 | 95 | 1 | 57-118/26 |
| 108-95-2 | Phenol | ND | | 96.2 | 39.8 | 41 | 40.5 | 42 | 2 | 13-54/34 |
| 95-95-4 | 2,4,5-Trichlorophenol | ND | | 96.2 | 79.5 | 83 | 81.1 | 84 | 2 | 59-106/23 |
| 88-06-2 | 2,4,6-Trichlorophenol | ND | | 96.2 | 81.3 | 85 | 80.8 | 84 | 1 | 58-107/24 |
| 83-32-9 | Acenaphthene | ND | | 96.2 | 80.9 | 84 | 81.6 | 85 | 1 | 58-106/21 |
| 208-96-8 | Acenaphthylene | ND | | 96.2 | 78.8 | 82 | 79.7 | 83 | 1 | 58-105/21 |
| 120-12-7 | Anthracene | ND | | 96.2 | 81.6 | 85 | 80.4 | 84 | 1 | 65-108/19 |
| 56-55-3 | Benzo(a)anthracene | ND | | 96.2 | 82.9 | 86 | 81.8 | 85 | 1 | 63-111/19 |
| 50-32-8 | Benzo(a)pyrene | ND | | 96.2 | 82.2 | 85 | 81.3 | 85 | 1 | 62-106/20 |
| 205-99-2 | Benzo(b)fluoranthene | ND | | 96.2 | 85.5 | 89 | 83.8 | 87 | 2 | 63-109/20 |
| 191-24-2 | Benzo(g,h,i)perylene | ND | | 96.2 | 85.7 | 89 | 82.4 | 86 | 4 | 61-111/21 |
| 207-08-9 | Benzo(k)fluoranthene | ND | | 96.2 | 86.8 | 90 | 87.5 | 91 | 1 | 64-111/20 |
| 101-55-3 | 4-Bromophenyl phenyl ether | ND | | 96.2 | 83.8 | 87 | 81.0 | 84 | 3 | 64-107/20 |
| 85-68-7 | Butyl benzyl phthalate | ND | | 96.2 | 86.0 | 89 | 84.3 | 88 | 2 | 59-114/20 |
| 100-51-6 | Benzyl Alcohol | ND | | 96.2 | 79.4 | 83 | 78.8 | 82 | 1 | 34-98/27 |
| 91-58-7 | 2-Chloronaphthalene | ND | | 96.2 | 79.2 | 82 | 79.8 | 83 | 1 | 54-105/24 |
| 106-47-8 | 4-Chloroaniline | ND | | 96.2 | 74.2 | 77 | 76.5 | 80 | 3 | 53-103/22 |
| 86-74-8 | Carbazole | ND | | 96.2 | 84.4 | 88 | 83.0 | 86 | 2 | 66-109/20 |
| 218-01-9 | Chrysene | ND | | 96.2 | 84.7 | 88 | 84.1 | 87 | 1 | 64-111/19 |
| 111-91-1 | bis(2-Chloroethoxy)methane | ND | | 96.2 | 78.4 | 82 | 79.1 | 82 | 1 | 48-101/28 |
| 111-44-4 | bis(2-Chloroethyl)ether | ND | | 96.2 | 81.4 | 85 | 78.7 | 82 | 3 | 51-108/27 |
| 108-60-1 | bis(2-Chloroisopropyl)ether | ND | | 96.2 | 79.8 | 83 | 77.8 | 81 | 3 | 43-106/27 |
| 7005-72-3 | 4-Chlorophenyl phenyl ether | ND | | 96.2 | 81.5 | 85 | 82.1 | 85 | 1 | 61-107/20 |
| 95-50-1 | 1,2-Dichlorobenzene | ND | | 96.2 | 75.1 | 78 | 74.2 | 77 | 1 | 41-102/28 |
| 541-73-1 | 1,3-Dichlorobenzene | ND | | 96.2 | 73.9 | 77 | 69.7 | 72 | 6 | 38-100/28 |

# Matrix Spike/Matrix Spike Duplicate Summary



Job Number: F55436
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MS | X000951.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| OP24004-MSD | X000952.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| F55407-9 | X000950.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |

The QC reported here applies to the following samples: Method: EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | F55407-9 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 106-46-7 | 1,4-Dichlorobenzene | ND | | 96.2 | 73.3 | 76 | 70.4 | 73 | 4 | 40-100/28 |
| 121-14-2 | 2,4-Dinitrotoluene | ND | | 96.2 | 82.1 | 85 | 81.9 | 85 | 0 | 60-109/20 |
| 606-20-2 | 2,6-Dinitrotoluene | ND | | 96.2 | 78.7 | 82 | 80.3 | 84 | 2 | 58-104/21 |
| 91-94-1 | 3,3'-Dichlorobenzidine | ND | | 96.2 | 68.7 | 71 | 69.0 | 72 | 0 | 57-105/25 |
| 53-70-3 | Dibenzo(a,h)anthracene | ND | | 96.2 | 81.2 | 84 | 83.9 | 87 | 3 | 62-112/20 |
| 132-64-9 | Dibenzofuran | ND | | 96.2 | 80.4 | 84 | 79.9 | 83 | 1 | 61-108/20 |
| 84-74-2 | Di-n-butyl phthalate | ND | | 96.2 | 83.0 | 86 | 81.4 | 85 | 2 | 62-109/20 |
| 117-84-0 | Di-n-octyl phthalate | ND | | 96.2 | 86.2 | 90 | 86.7 | 90 | 1 | 60-120/24 |
| 84-66-2 | Diethyl phthalate | ND | | 96.2 | 78.8 | 82 | 77.2 | 80 | 2 | 62-109/19 |
| 131-11-3 | Dimethyl phthalate | ND | | 96.2 | 82.8 | 86 | 82.8 | 86 | 0 | 63-106/19 |
| 117-81-7 | bis(2-Ethylhexyl)phthalate | ND | | 96.2 | 86.2 | 90 | 86.1 | 90 | 0 | 59-116/21 |
| 206-44-0 | Fluoranthene | ND | | 96.2 | 83.9 | 87 | 83.3 | 87 | 1 | 65-114/21 |
| 86-73-7 | Fluorene | ND | | 96.2 | 82.0 | 85 | 81.6 | 85 | 0 | 61-106/19 |
| 118-74-1 | Hexachlorobenzene | ND | | 96.2 | 80.6 | 84 | 80.4 | 84 | 0 | 62-107/20 |
| 87-68-3 | Hexachlorobutadiene | ND | | 96.2 | 79.0 | 82 | 76.6 | 80 | 3 | 38-107/30 |
| 77-47-4 | Hexachlorocyclopentadiene | ND | | 96.2 | 59.1 | 61 | 58.6 | 61 | 1 | 19-84/35 |
| 67-72-1 | Hexachloroethane | ND | | 96.2 | 73.8 | 77 | 70.7 | 74 | 4 | 35-101/29 |
| 193-39-5 | Indeno(1,2,3-cd)pyrene | ND | | 96.2 | 84.0 | 87 | 80.0 | 83 | 5 | 61-113/20 |
| 78-59-1 | Isophorone | ND | | 96.2 | 84.0 | 87 | 84.6 | 88 | 1 | 56-111/26 |
| 91-57-6 | 2-Methylnaphthalene | ND | | 96.2 | 79.8 | 83 | 78.1 | 81 | 2 | 56-112/26 |
| 88-74-4 | 2-Nitroaniline | ND | | 96.2 | 79.8 | 83 | 80.4 | 84 | 1 | 60-109/20 |
| 99-09-2 | 3-Nitroaniline | ND | | 96.2 | 73.8 | 77 | 81.0 | 84 | 9 | 52-107/21 |
| 100-01-6 | 4-Nitroaniline | ND | | 96.2 | 79.7 | 83 | 79.9 | 83 | 0 | 59-111/21 |
| 91-20-3 | Naphthalene | ND | | 96.2 | 76.5 | 80 | 75.6 | 79 | 1 | 50-104/28 |
| 98-95-3 | Nitrobenzene | ND | | 96.2 | 78.8 | 82 | 77.9 | 81 | 1 | 52-105/28 |
| 621-64-7 | N-Nitroso-di-n-propylamine | ND | | 96.2 | 78.8 | 82 | 77.8 | 81 | 1 | 51-104/28 |
| 86-30-6 | N-Nitrosodiphenylamine | ND | | 96.2 | 77.4 | 80 | 77.4 | 80 | 0 | 57-110/19 |
| 85-01-8 | Phenanthrene | ND | | 96.2 | 81.9 | 85 | 81.7 | 85 | 0 | 65-108/20 |
| 129-00-0 | Pyrene | ND | | 96.2 | 84.5 | 88 | 83.9 | 87 | 1 | 60-113/20 |
| 120-82-1 | 1,2,4-Trichlorobenzene | ND | | 96.2 | 77.9 | 81 | 74.9 | 78 | 4 | 45-104/28 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-9 | Limits |
|---|---|---|---|---|---|
| 367-12-4 | 2-Fluorophenol | 54% | 53% | 24% | 14-62% |
| 4165-62-2 | Phenol-d5 | 39% | 40% | 14% | 10-40% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP24004-MS | X000951.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| OP24004-MSD | X000952.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |
| F55407-9 | X000950.D | 1 | 02/07/08 | NJ | 02/05/08 | OP24004 | SX47 |



**The QC reported here applies to the following samples:** **Method:** EPA 625

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-9 | Limits |
|---|---|---|---|---|---|
| 118-79-6 | 2,4,6-Tribromophenol | 80% | 81% | 67% | 33-118% |
| 4165-60-0 | Nitrobenzene-d5 | 77% | 76% | 64% | 42-108% |
| 321-60-8 | 2-Fluorobiphenyl | 77% | 77% | 62% | 40-106% |
| 1718-51-0 | Terphenyl-d14 | 83% | 81% | 70% | 39-121% |

## 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: F55436
Account: ITVAVAB Shaw E & I, Inc.
Project: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1284-MB | QQ033289.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |



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

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7, F55436-8

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

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 83% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 96% | 73-118% |

# Method Blank Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1737-MB | UV030243.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | 75 | 50 | ug/l | |
| | C9- C12 Aliphatics (Unadj.) | ND | 55 | 30 | ug/l | |
| | C9- C10 Aromatics (Unadj.) | ND | 20 | 10 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 102% | 70-130% |
| 460-00-4 | BFB | 104% | 70-130% |

# Blank Spike Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GQQ1284-BS | QQ033288.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |



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

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7, F55436-8

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| 71-43-2 | Benzene | 20 | 21.5 | 108 | 80-120 |
| 108-90-7 | Chlorobenzene | 20 | 20.6 | 103 | 79-118 |
| 95-50-1 | 1,2-Dichlorobenzene | 20 | 16.8 | 84 | 76-117 |
| 541-73-1 | 1,3-Dichlorobenzene | 20 | 17.2 | 86 | 78-120 |
| 106-46-7 | 1,4-Dichlorobenzene | 20 | 17.1 | 86 | 78-117 |
| 100-41-4 | Ethylbenzene | 20 | 20.5 | 103 | 79-121 |
| 1634-04-4 | Methyl Tert Butyl Ether | 20 | 21.0 | 105 | 72-113 |
| 108-88-3 | Toluene | 20 | 20.7 | 104 | 79-121 |
| 1330-20-7 | Xylenes (total) | 60 | 61.5 | 103 | 80-119 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 107% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 99% | 73-118% |

# Blank Spike Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| GUV1737-BS | UV030242.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | Limits |
|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | 480 | 574 | 120 | 70-130 |
| | C9- C12 Aliphatics (Unadj.) | 480 | 532 | 111 | 70-130 |
| | C9- C10 Aromatics (Unadj.) | 80 | 78.2 | 98 | 70-130 |

| CAS No. | Surrogate Recoveries | BSP | Limits |
|---|---|---|---|
| 460-00-4 | BFB | 105% | 70-130% |
| 460-00-4 | BFB | 99% | 70-130% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55431-1MS | QQ033294.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |
| F55431-1MSD | QQ033295.D | 1 | 02/05/08 | NJ | n/a | n/a | GQQ1284 |
| F55431-1 | QQ033293.D | 1 | 02/04/08 | NJ | n/a | n/a | GQQ1284 |



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

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7, F55436-8

| CAS No. | Compound | F55431-1 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| 71-43-2 | Benzene | 1.0 | U | 20 | 21.1 | 106 | 21.1 | 106 | 0 | 80-120/10 |
| 108-90-7 | Chlorobenzene | 1.0 | U | 20 | 20.4 | 102 | 20.4 | 102 | 0 | 79-118/10 |
| 95-50-1 | 1,2-Dichlorobenzene | 1.0 | U | 20 | 16.9 | 85 | 16.7 | 84 | 1 | 76-117/18 |
| 541-73-1 | 1,3-Dichlorobenzene | 1.0 | U | 20 | 17.1 | 86 | 17.2 | 86 | 1 | 78-120/13 |
| 106-46-7 | 1,4-Dichlorobenzene | 1.0 | U | 20 | 17.1 | 86 | 16.9 | 85 | 1 | 78-117/11 |
| 100-41-4 | Ethylbenzene | 1.0 | U | 20 | 20.1 | 101 | 20.2 | 101 | 0 | 79-121/9 |
| 1634-04-4 | Methyl Tert Butyl Ether | 1.0 | U | 20 | 20.7 | 104 | 21.0 | 105 | 1 | 72-113/13 |
| 108-88-3 | Toluene | 1.0 | U | 20 | 20.3 | 102 | 20.5 | 103 | 1 | 79-121/10 |
| 1330-20-7 | Xylenes (total) | 3.0 | U | 60 | 60.6 | 101 | 61.0 | 102 | 1 | 80-119/8 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55431-1 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | 4-Bromofluorobenzene | 108% | 108% | 88% | 70-120% |
| 98-08-8 | aaa-Trifluorotoluene | 98% | 99% | 95% | 73-118% |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55436-5MS | UV030259.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-5MSD | UV030260.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-5 | UV030258.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | F55436-5 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | 480 | 554 | 115 | 529 | 110 | 5 | 70-130/50 |
| | C9- C12 Aliphatics (Unadj.) | ND | | 480 | 536 | 112 | 511 | 106 | 5 | 70-130/50 |
| | C9- C10 Aromatics (Unadj.) | 12.8 | J | 80 | 92.6 | 100 | 87.8 | 94 | 5 | 70-130/50 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55436-5 | Limits |
|---|---|---|---|---|---|
| 460-00-4 | BFB | 100% | 94% | 91% | 70-130% |
| 460-00-4 | BFB | 96% | 88% | 87% | 70-130% |

# Duplicate Summary



**Job Number:** F55436
**Account:** ITVAVAB Shaw E & I, Inc.
**Project:** Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| F55436-4DUP | UV030257.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |
| F55436-4 | UV030256.D | 1 | 02/07/08 | MM | n/a | n/a | GUV1737 |



**The QC reported here applies to the following samples:** **Method:** MADEP VPH

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7

| CAS No. | Compound | F55436-4 ug/l | Q | DUP ug/l | Q | RPD | Limits |
|---|---|---|---|---|---|---|---|
| | C5- C8 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C12 Aliphatics (Unadj.) | ND | | ND | | nc | |
| | C9- C10 Aromatics (Unadj.) | ND | | ND | | nc | |

| CAS No. | Surrogate Recoveries | DUP | F55436-4 | Limits |
|---|---|---|---|---|
| 460-00-4 | BFB | 94% | 96% | 70-130% |
| 460-00-4 | BFB | 92% | 92% | 70-130% |

## Misc. Forms

6

# Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Chain of Custody

# Accutest Laboratories Southeast
## Chain of Custody

4405 Vineland Road, Suite C-15 , Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # F55436 PAGE 1 OF 1

Accutest Quote # | SKIFF#

**Client / Reporting Information**

Company Name: Accutest
Address:
City | State | Zip:
Project Contact | E-mail:
Phone #:
Sampler(s) Name(s) (Printed):

**Project Information**

Project Name: F55436
Street:
City | State:
Project #:
Fax #:
Client Purchase Order #:

**Analytical Information**

MADEP EPH

**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 | Time | Sampled By | Matrix | Total # of Bottles | Container Information | MADEP EPH |
|---|---|---|---|---|---|---|---|---|
| | F55436 - 1 | 1-30-08 | 1300 | | GW | 2 | X | X |
| | - 2 | | 1345 | | | | | X |
| | - 3 | | 1430 | | | | | X |
| | - 4 | | 1600 | | | | | X |
| | - 5 | | 1630 | | | | | X |
| | - 6 | | 1730 | | | | | X |
| | - 7 | ↓ | 1800 | | ↓ | ↓ | ↓ | X |

**TURNAROUND TIME (Business Days)**

Approved By: / Rush Code

- [X] 10 Days Standard
- [ ] 7 Day RUSH
- [ ] 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) 15D
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [ ] EDD'S

**Comments / Remarks**

AINE

ASBD

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 | 1-30-08 17:00 | 2 7983 6566 6758 | 3 Fedex | 1/2/08 11:15 | 4 Will Arell |
| 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: 1.4°C -1.8

6.1 6

F55436: Chain of Custody
Page 1 of 1
Accutest Labs of New England, Inc.

## GC Semi-volatiles

# QC Data Summaries

(Accutest Labs of New England, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary



**Job Number:** F55436
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15160-MB | BC18342.D | 1 | 02/13/08 | DG | 02/05/08 | OP15160 | GBC1025 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7



| CAS No. | Compound | Result | RL | MDL | Units | Q |
|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | 100 | 100 | ug/l | |
| | C9-C18 Aliphatics | ND | 100 | 100 | ug/l | |
| | C19-C36 Aliphatics | ND | 100 | 100 | ug/l | |

| CAS No. | Surrogate Recoveries | | Limits |
|---|---|---|---|
| 84-15-1 | o-Terphenyl | 75% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 42% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 74% | 40-140% |

# Blank Spike/Blank Spike Duplicate Summary



**Job Number:** F55436
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15160-BS | BC18343.D | 1 | 02/13/08 | DG | 02/05/08 | OP15160 | GBC1025 |
| OP15160-BSD | BC18344.D | 1 | 02/13/08 | DG | 02/05/08 | OP15160 | GBC1025 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7



| CAS No. | Compound | Spike ug/l | BSP ug/l | BSP % | BSD ug/l | BSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | 800 | 823 | 103 | 799 | 100 | 3 | 40-140/25 |
| | C9-C18 Aliphatics | 300 | 228 | 76 | 229 | 76 | 0 | 40-140/25 |
| | C19-C36 Aliphatics | 400 | 363 | 91 | 359 | 90 | 1 | 40-140/25 |

| CAS No. | Surrogate Recoveries | BSP | BSD | Limits |
|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 84% | 84% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 78% | 79% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 55% | 54% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 72% | 73% | 40-140% |

| Sample | Compound | Col #1 | Col #2 | Breakthrough | Limit |
|---|---|---|---|---|---|
| OP15160-BS | 2-Methylnaphthalene | 34.8 | 0.080 | 0.2% | 5.0 |
| OP15160-BS | Naphthalene | 32.3 | 0.81 | 2.4% | 5.0 |
| OP15160-BSD | 2-Methylnaphthalene | 35.3 | 0.10 | 0.3% | 5.0 |
| OP15160-BSD | Naphthalene | 32.4 | 0.86 | 2.6% | 5.0 |

# Matrix Spike/Matrix Spike Duplicate Summary



**Job Number:** F55436
**Account:** ALSE Accutest Laboratories Southeast, Inc.
**Project:** ITVAVAB: Camp Lejeune-MCAS-Rapid Refueler

| Sample | File ID | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---|---|---|---|---|---|---|---|
| OP15160-MS | BC18345.D | 1 | 02/14/08 | DG | 02/05/08 | OP15160 | GBC1025 |
| OP15160-MSD | BC18346.D | 1 | 02/14/08 | DG | 02/05/08 | OP15160 | GBC1025 |
| F55407-3 | BC18349.D | 1 | 02/14/08 | DG | 02/05/08 | OP15160 | GBC1025 |

**The QC reported here applies to the following samples:** **Method:** MADEP EPH REV 1.1

F55436-1, F55436-2, F55436-3, F55436-4, F55436-5, F55436-6, F55436-7



| CAS No. | Compound | F55407-3 ug/l | Q | Spike ug/l | MS ug/l | MS % | MSD ug/l | MSD % | RPD | Limits Rec/RPD |
|---|---|---|---|---|---|---|---|---|---|---|
| | C11-C22 Aromatics (Unadj.) | ND | | 1450 | 1350 | 93 | 1370 | 94 | 1 | 50-150/30 [a] |
| | C9-C18 Aliphatics | ND | | 545 | 369 | 68 | 364 | 67 | 1 | 40-140/25 |
| | C19-C36 Aliphatics | ND | | 727 | 614 | 84 | 645 | 89 | 5 | 40-140/25 |

| CAS No. | Surrogate Recoveries | MS | MSD | F55407-3 | Limits |
|---|---|---|---|---|---|
| 84-15-1 | o-Terphenyl | 78% | 76% | 69% | 40-140% |
| 321-60-8 | 2-Fluorobiphenyl | 80% | 84% | 48% | 40-140% |
| 3386-33-2 | 1-Chlorooctadecane | 51% | 47% | 43% | 40-140% |
| 580-13-2 | 2-Bromonaphthalene | 71% | 76% | 46% | 40-140% |

(a) Advisory control limits.

# APPENDIX D

# MADEP-EPH/VPH ANALYTICAL RESULTS

# JANUARY 2008

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW06G | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/20/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/22/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 01/30/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/06/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | 119 | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 37.0 * | 57 | | | |
| **Aromatic Surrogate % Recovery** | | | | 78 | 72 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 76 | 73 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 82 | 77 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes

| | |
|---|---|
| **Was blank correction applied as a significant modification of the method?** | Yes |
| **Were any significant modifications to the eph method made?** | No |

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges: MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic: BFB**
**Aromatic: BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRR-MW06G | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/20/2008 | | | |
| | | **Date Received** | | | 01/22/2008 | | | |
| | | **Date Extracted** | | | 01/22/2008 | | | |
| | | **Date Analyzed** | | | 01/31/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 92 | 94 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 104 | 101 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW23 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/20/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/22/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 01/30/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/03/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | 357 | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | 1030 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 37.0 * | 16 * | | | |
| **Aromatic Surrogate % Recovery** | | | | 78 | 38.0 * | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 76 | 85 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 82 | 90 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges: MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic: BFB**
**Aromatic: BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRR-MW23 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/20/2008 | | | |
| | | **Date Received** | | | 01/22/2008 | | | |
| | | **Date Extracted** | | | 01/22/2008 | | | |
| | | **Date Analyzed** | | | 01/31/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 2 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 100 | 150 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 60 | 110 | ND | 446 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 20 | 40 | ND | 360 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 92 | 95 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 104 | 100 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW21 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/21/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/22/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 01/30/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/06/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 96 | 96 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 96 | 96 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 96 | 96 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 37.0 * | 43 | | | |
| **Aromatic Surrogate % Recovery** | | | | 78 | 73 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 76 | 75 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 82 | 77 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRR-MW21 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/21/2008 | | | |
| | | **Date Received** | | | 01/22/2008 | | | |
| | | **Date Extracted** | | | 01/22/2008 | | | |
| | | **Date Analyzed** | | | 01/31/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 92 | 87 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 104 | 92 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS527-MW10 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/21/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/22/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 01/30/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/06/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | 14900 | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | 95.9 | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | 2320 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 37.0 * | 51 | | | |
| **Aromatic Surrogate % Recovery** | | | | 78 | 52 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 76 | 95 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 82 | 93 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS527-MW10 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/21/2008 | | | |
| | | **Date Received** | | | 01/22/2008 | | | |
| | | **Date Extracted** | | | 01/22/2008 | | | |
| | | **Date Analyzed** | | | 01/31/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 100 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 5000 | 7500 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 3000 | 5500 | ND | 27500 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 1000 | 2000 | ND | 16500 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 92 | 102 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 104 | 106 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS511-MW01 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/21/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/22/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 01/30/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/06/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | 97 | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | 180 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 37.0 * | 40 | | | |
| **Aromatic Surrogate % Recovery** | | | | 78 | 66 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 76 | 71 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 82 | 76 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTAS511-MW01 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/21/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/22/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/22/2008 | | | |
| | | **Date Analyzed** | | | 01/31/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | 92.7 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 96.1 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 92 | 101 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 104 | 105 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS511-MW05 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/21/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/22/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 01/30/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/03/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 37.0 * | 45 | | | |
| **Aromatic Surrogate % Recovery** | | | | 78 | 73 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 76 | 69 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 82 | 73 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

| | |
|---|---|
| **Were all performance/acceptance standards for required QA/QC procedures achieved?** | Yes |
| **Was blank correction applied as a significant modification of the method?** | Yes |
| **Were any significant modifications to the eph method made?** | No |

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| Method for Ranges: MADEP VPH<br><br>VPH Surrogate Standards<br>Aliphatic: BFB<br>Aromatic: BFB | | Sample Identification | | | USTAS511-MW05 | | | |
|---|---|---|---|---|---|---|---|---|
| | | Collection Option (for soil)* | | | 1 | | | |
| | | Date Collected | | | 01/21/2008 | | | |
| | | Date Received | | | 01/22/2008 | | | |
| | | Date Extracted | | | 01/22/2008 | | | |
| | | Date Analyzed | | | 01/31/2008 | | | |
| | | % Dry Solids | | | N/A | | | |
| | | Dilution Factor | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 18.6 J | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 92 | 89 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 104 | 95 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS527-MW03 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/24/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 51 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 74 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 73 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 73 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes

| | |
|---|---|
| **Was blank correction applied as a significant modification of the method?** | Yes |
| **Were any significant modifications to the eph method made?** | No |

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS527-MW03 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/24/2008 | | | |
| | | **Date Received** | | | 01/26/2008 | | | |
| | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | 120 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 72.4 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 101 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 101 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRRMW15D | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 42 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 72 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 69 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 69 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTRRMW15D | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 92 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 93 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS527-DW02 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/24/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | 113 | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | 603 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 50 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 72 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 66 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 68 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTAS527-DW02 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/24/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 10 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 500 | 750 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 300 | 550 | ND | 2100 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 100 | 200 | ND | 1590 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 101 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 106 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS527-MW16 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/24/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 48 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 65 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 63 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 65 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS527-MW16 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/24/2008 | | | |
| | | **Date Received** | | | 01/26/2008 | | | |
| | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | 196 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 136 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 95 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 99 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS511M W04 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/24/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/12/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 31.0 * | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 66 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 75 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 65 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTAS511M W04 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/24/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 26.1 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 91 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 94 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRRMW10 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | 132 | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | 822 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 53 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 69 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 70 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 64 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRRMW1 0 | USTRRMW1 0 | | |
| | | **Collection Option (for soil)*** | | | 1 | 1 | | |
| | | **Date Collected** | | | 01/25/2008 | 01/25/2008 | | |
| | | **Date Received** | | | 01/26/2008 | 01/26/2008 | | |
| | | **Date Extracted** | | | 01/26/2008 | 01/26/2008 | | |
| | | **Date Analyzed** | | | 02/07/2008 | 02/06/2008 | | |
| | | **% Dry Solids** | | | N/A | N/A | | |
| | | **Dilution Factor** | | | 2 | 20 | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 100 | 150 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 60 | 110 | ND | 1160 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 200 | 400 | ND | | 689 | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | **70-130%** | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 97 | 92 | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 102 | 96 | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRRMW05 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | 205 | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | 173 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 45 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 72 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 65 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 66 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRRMW05 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/25/2008 | | | |
| | | **Date Received** | | | 01/26/2008 | | | |
| | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | 477 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 320 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 102 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 101 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRRMW1 1 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 56 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 70 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 68 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 66 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRRMW1 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/25/2008 | | | |
| | | **Date Received** | | | 01/26/2008 | | | |
| | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 16.8 J | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 88 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 93 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRRMW14 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 45 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 69 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 68 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 70 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTRRMW14 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/26/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 94 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 92 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRRMW15 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/25/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/26/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/04/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/08/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 58 | 41 | | | |
| **Aromatic Surrogate % Recovery** | | | | 72 | 75 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 65 | 75 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 57 | 77 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| Method for Ranges: MADEP VPH | | Sample Identification | | | USTRRMW15 | | | |
|---|---|---|---|---|---|---|---|---|
| | | Collection Option (for soil)* | | | 1 | | | |
| VPH Surrogate Standards | | Date Collected | | | 01/25/2008 | | | |
| Aliphatic: BFB | | Date Received | | | 01/26/2008 | | | |
| Aromatic: BFB | | Date Extracted | | | 01/26/2008 | | | |
| | | Date Analyzed | | | 02/06/2008 | | | |
| | | % Dry Solids | | | N/A | | | |
| | | Dilution Factor | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| C5- C8 Aliphatics (Unadj.) | ug/l | 50 | 75 | ND | ND | | | |
| C9- C12 Aliphatics (Unadj.) | ug/l | 30 | 55 | ND | ND | | | |
| C9- C10 Aromatics (Unadj.) | ug/l | 10 | 20 | ND | ND | | | |
| Sample Surrogate Acceptance Range | | | | 70-130% | 70-130% | | | |
| Aliphatic Surrogate % Recovery - FID | | | | 90 | 96 | | | |
| Aromatic Surrogate % Recovery - PID | | | | 93 | 90 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW17 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/15/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | 8710 | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | 285 | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | 2380 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 41 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 67 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 66 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 74 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes

| | |
|---|---|
| **Was blank correction applied as a significant modification of the method?** | Yes |
| **Were any significant modifications to the eph method made?** | No |

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRR-MW17 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/29/2008 | | | |
| | | **Date Received** | | | 01/31/2008 | | | |
| | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/08/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 10 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 500 | 750 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 300 | 550 | ND | 1950 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 100 | 200 | ND | 1200 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 113 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 109 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW22 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/15/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | 511 | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | 233 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 43 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 69 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 82 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 79 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTRR-MW22 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 79 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 84 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS497-MW04 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/14/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/18/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 95 | 95 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 95 | 95 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 38.0 * | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 66 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 76 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 66 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges: MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic: BFB**
**Aromatic: BFB**

| Hydrocarbon Ranges | Units of Measure | MDL | RL | BLANK | USTAS497-MW04 | | | |
|---|---|---|---|---|---|---|---|---|
| **Sample Identification** | | | | | USTAS497-MW04 | | | |
| **Collection Option (for soil)*** | | | | | 1 | | | |
| **Date Collected** | | | | | 01/29/2008 | | | |
| **Date Received** | | | | | 01/31/2008 | | | |
| **Date Extracted** | | | | | 01/31/2008 | | | |
| **Date Analyzed** | | | | | 02/06/2008 | | | |
| **% Dry Solids** | | | | | N/A | | | |
| **Dilution Factor** | | | | | 1 | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 86 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 85 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS497-MW03 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 43 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 69 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 48 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 46 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS497-MW03 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/29/2008 | | | |
| | | **Date Received** | | | 01/31/2008 | | | |
| | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 85 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 91 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS497-MW06 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 40 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 65 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 44 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 42 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges: MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic: BFB**
**Aromatic: BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS497-MW06 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/29/2008 | | | |
| | | **Date Received** | | | 01/31/2008 | | | |
| | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 87 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 91 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW12 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/15/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | 12300 | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | 3100 | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 44 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 67 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 112 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 109 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTRR-MW12 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 20 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 1000 | 1500 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 600 | 1100 | ND | 6020 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 200 | 400 | ND | 3860 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 112 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 105 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS497-MW01 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 47 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 73 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 79 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 72 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTAS497-MW01 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 80 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 87 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS497-MW02 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 45 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 74 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 85 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 76 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| Method for Ranges: MADEP VPH<br>VPH Surrogate Standards<br>Aliphatic: BFB<br>Aromatic: BFB | | Sample Identification | | | USTAS497-MW02 | | | |
|---|---|---|---|---|---|---|---|---|
| | | Collection Option (for soil)* | | | 1 | | | |
| | | Date Collected | | | 01/29/2008 | | | |
| | | Date Received | | | 01/31/2008 | | | |
| | | Date Extracted | | | 01/31/2008 | | | |
| | | Date Analyzed | | | 02/06/2008 | | | |
| | | % Dry Solids | | | N/A | | | |
| | | Dilution Factor | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 86 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 90 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS511-MW02 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 43 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 76 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 83 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 76 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTAS511-MW02 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 87 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 88 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** | MADEP EPH REV 1.1 | **Sample Identification** | | | USTAS511-MW06 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/29/2008 | | | |
| **Aliphatic:** | 1-Chlorooctadecane | **Date Received** | | | 01/31/2008 | | | |
| **Aromatic:** | o-Terphenyl | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** | 2-Fluorobiphenyl | **% Dry Solids** | | | N/A | | | |
| **#2:** | 2-Bromonaphthalene | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 47 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 74 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 82 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 71 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges: MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic: BFB**
**Aromatic: BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS511-MW06 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/29/2008 | | | |
| | | **Date Received** | | | 01/31/2008 | | | |
| | | **Date Extracted** | | | 01/31/2008 | | | |
| | | **Date Analyzed** | | | 02/06/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 90 | 87 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 93 | 92 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS511-MW03 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 43 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 67 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 82 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 72 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes

| | |
|---|---|
| **Was blank correction applied as a significant modification of the method?** | Yes |
| **Were any significant modifications to the eph method made?** | No |

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTAS511-MW03 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 02/01/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 81 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 85 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS511-MW07 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 44 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 72 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 81 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 69 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS511-MW07 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/30/2008 | | | |
| | | **Date Received** | | | 02/01/2008 | | | |
| | | **Date Extracted** | | | 02/01/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 90 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 94 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS511-MW08 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/18/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 40 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 65 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 74 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 64 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTAS511-MW08 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/30/2008 | | | |
| | | **Date Received** | | | 02/01/2008 | | | |
| | | **Date Extracted** | | | 02/01/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 86 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 92 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

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**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTAS527-DW06 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 43 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 73 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 81 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 90 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

| | |
|---|---|
| **Were all performance/acceptance standards for required QA/QC procedures achieved?** | Yes |
| **Was blank correction applied as a significant modification of the method?** | Yes |
| **Were any significant modifications to the eph method made?** | No |

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTAS527-DW06 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 02/01/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 92 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 96 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW07 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 44 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 78 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 84 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 72 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTRR-MW07 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 02/01/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Allphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 12.8 J | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 87 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 91 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW09 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/14/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 40 | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 68 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 75 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 66 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** Yes
**Was blank correction applied as a significant modification of the method?** Yes
**Were any significant modifications to the eph method made?** No

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

**Method for Ranges:** **MADEP VPH**

**VPH Surrogate Standards**
**Aliphatic:** **BFB**
**Aromatic:** **BFB**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | **Sample Identification** | | | USTRR-MW09 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| | | **Date Collected** | | | 01/30/2008 | | | |
| | | **Date Received** | | | 02/01/2008 | | | |
| | | **Date Extracted** | | | 02/01/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | 74.8 | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | 41 | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 104 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 98 | | | |

* Option 1 = Established fill line on vial  Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM)  Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit  RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**

# EPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab):
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges:** MADEP EPH REV 1.1 | | **Sample Identification** | | | USTRR-MW06 | | | |
| **EPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic:** 1-Chlorooctadecane | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic:** o-Terphenyl | | **Date Extracted** | | | 02/05/2008 | | | |
| **EPH Fractionation Surrogates** | | **Date Analyzed** | | | 02/18/2008 | | | |
| **#1:** 2-Fluorobiphenyl | | **% Dry Solids** | | | N/A | | | |
| **#2:** 2-Bromonaphthalene | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C9-C18 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C19-C36 Aliphatics** | ug/l | 100 | 100 | | ND | | | |
| **C11-C22 Aromatics (Unadj.)** | ug/l | 100 | 100 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **40-140** | **40-140** | | | |
| **Aliphatic Surrogate % Recovery** | | | | 42 | 39.0 * | | | |
| **Aromatic Surrogate % Recovery** | | | | 75 | 57 | | | |
| **Fractionation Surrogate Acceptance Range** | | | | | | | | |
| **Fractionation Surrogate #1 % Recovery** | | | | 78 | 70 | | | |
| **Fractionation Surrogate #2 % Recovery** | | | | 74 | 60 | | | |

* Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.
MDL = Method Detection Limit RL = Reporting Limit

EPH rev. 11/00

| | |
|---|---|
| **Were all performance/acceptance standards for required QA/QC procedures achieved?** | Yes |
| **Was blank correction applied as a significant modification of the method?** | Yes |
| **Were any significant modifications to the eph method made?** | No |

# VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Shaw E & I, Inc.
Project Name: Camp Lejeune-MCAS-Rapid Refueler
Site Location: _____

Laboratory Name: Accutest Southeast
NC Certification # (Lab): 573
Sample Matrix : Ground Water

## Sample Information and Analytical Results

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Method for Ranges: MADEP VPH** | | **Sample Identification** | | | USTRR-MW06 | | | |
| | | **Collection Option (for soil)*** | | | 1 | | | |
| **VPH Surrogate Standards** | | **Date Collected** | | | 01/30/2008 | | | |
| **Aliphatic: BFB** | | **Date Received** | | | 02/01/2008 | | | |
| **Aromatic: BFB** | | **Date Extracted** | | | 02/01/2008 | | | |
| | | **Date Analyzed** | | | 02/07/2008 | | | |
| | | **% Dry Solids** | | | N/A | | | |
| | | **Dilution Factor** | | | 1 | | | |
| **Hydrocarbon Ranges** | **Units of Measure** | **MDL** | **RL** | **BLANK** | | | | |
| **C5- C8 Aliphatics (Unadj.)** | **ug/l** | 50 | 75 | ND | ND | | | |
| **C9- C12 Aliphatics (Unadj.)** | **ug/l** | 30 | 55 | ND | ND | | | |
| **C9- C10 Aromatics (Unadj.)** | **ug/l** | 10 | 20 | ND | ND | | | |
| **Sample Surrogate Acceptance Range** | | | | **70-130%** | **70-130%** | | | |
| **Aliphatic Surrogate % Recovery - FID** | | | | 104 | 98 | | | |
| **Aromatic Surrogate % Recovery - PID** | | | | 102 | 92 | | | |

* Option 1 = Established fill line on vial Option 2 = Sampling Device (indicate brand, e.g. EnCoreTM) Option 3 = Field weight of soil

** Unadjusted value. Should exclude the concentration of any surrogate(s), internal standards, and/or concentrations of other ranges that elute within the specified range.

MDL = Method Detection Limit RL = Reporting Limit

VPH rev. 11/00

**Were all performance/acceptance standards for required QA/QC procedures achieved?** **Yes**

**Were any significant modifications to the VPH method made?** **No**