Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

This form must be used as a cover sheet for the notices and reports, identified below as required by: (1) a facility's RCRA interim status closure plan; (2) the RCRA interim status regulations; or (3) a facility's RCRA permit. All reports must be submitted to the Illinois EPA's Bureau of Land Permit Section. This form is for use by Hazardous Waste facilities only. Reporting for Solid Waste facilities should be submitted on a separate form. All reports submitted to the Illinois EPA's Bureau of Land Permit Section must contain an original, plus a minimum of two copies.

Note: This form is not to be used with permit or closure plan modification requests. The facility's approved permit or closure plan will state whether the document you are submitting is required as a report or a modification request.

Facility Name: WRB Refining LP - Wood River Refinery

Facility Address: 900 South Central Avenue, Roxana, Illinois 62084

Site ID #: 1191150002 Fed ID #: ILD 080 012 305

Check the appropriate heading. Only one heading may be checked for each corresponding submittal. Check the appropriate sub-heading, where applicable. Attach the original and all copies behind this form.

☐ LPC-160 Forms

Groundwater	Leachate
___ Quarterly - Enter: 1, 2, 3, or 4	___ Quarterly - Enter: 1, 2, 3, or 4
☐ Semi-Annual	☐ Semi-Annual
☐ Annual	☐ Annual
☐ Biennial	☐ Biennial

☑ Groundwater Data (without LPC-160 Forms)

1 Quarterly - Enter: 1, 2, 3, or 4 ☐ Annual ☐ Semi-Annual ☐ Biennial

☐ Well Construction Information

- ☐ Well Construction Forms, Boring Logs and/or Abandonment Forms
- ☐ Well Survey Data (e.g., Stick-up Elevation Data)

☐ Notice of Statistically Significant Evidence of Groundwater Contamination (35 Ill. Adm. Code 724.198)

☐ Notice of Exceedence of Groundwater Concentration Limit (35 Ill. Adm. Code 724.199(h))

☐ Notice of Alternate Source or Error in Sampling Analysis or Evaluation of Groundwater (35 Ill. Adm. Code 724.199(i))

☐ Gas Monitoring Reports

☐ Other (identify)

_____

_____

URS

April 9, 2013

Mr. Steven F. Nightingale, P.E.
Manager, Permit Section
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794

Subject: **Groundwater Monitoring Report – 1st Quarter 2013**
Roxana, Illinois
119115002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43-CA-21

Dear Mr. Nightingale:

On behalf of Shell Oil Products US, URS Corporation is submitting the enclosed report for your review. This sampling was required by Condition 7 of the Agency's letter dated August 5, 2010.

If you have any questions during your review, please contact Kevin Dyer, SOPUS Principal Program Manager, at kevin.dyer@shell.com (618/288-7237), or me at robert.mooshegian@urs.com (314/743-4106).

Sincerely,

URS Corporation, on behalf of Shell Oil Products US

Kelly Hurst
Senior Environmental Scientist

Robert Mooshegian, CHMM
Senior Project Manager

Enclosures: RCRA Corrective Action Certification and Report (original plus 2 copies)

Cc: Kevin Dyer, SOPUS
Marty Reynolds, Village of Roxana
Eric Petersen, ConocoPhillips
Amy Boley, IEPA, Springfield
Gina Search, IEPA, Collinsville
Repository – Roxana Public Library

1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
Phone: 314.429.0100
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REPORT

INTERIM GROUNDWATER MONITORING PROGRAM – 1ST QUARTER 2013

Roxana, Illinois

Prepared for:

Shell Oil Products US
17 Junction Drive
PMB#399
Glen Carbon, Illinois 62034

April 2013

URS Corporation
1001 Highlands Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project 21562850.03001

TABLE OF CONTENTS

SECTION 1 INTRODUCTION 1-1

SECTION 2 GROUNDWATER SAMPLING AND ANALYTICAL PROCEDURES 2-1
- 2.1 Additional Activities or Modifications 2-1
- 2.2 Groundwater Monitoring Well Gauging and Sampling 2-1
- 2.3 Health & Safety, Decontamination, and Investigative Derived Waste 2-3
- 2.4 Groundwater Sample Handling and Laboratory Testing 2-4
- 2.5 Data Quality Review and Data Management 2-5

SECTION 3 GROUNDWATER SAMPLING RESULTS 3-1
- 3.1 Groundwater Monitoring Well Gauging Results 3-1
- 3.2 Data Quality Review Results 3-1
- 3.3 Analytical Results and Discussion 3-2

SECTION 4 REFERENCES 4-1

List of Tables

Table 1	Cumulative Groundwater Monitoring Well Gauging Results
Table 2a	Cumulative Summary of Groundwater Monitoring Well Field Parameters
Table 2b	Cumulative Summary of Perched Groundwater Monitoring Well Field Parameters
Table 3	Cumulative Summary of Groundwater Monitoring Well Analytical Results and Exceedances

List of Figures

Figure 1	Investigation Area Location Map
Figure 2	Groundwater Monitoring Well Sampling Locations
Figure 3a	Groundwater Contours 1Q13
Figure 3b	Groundwater Contours 1Q13-West Fenceline
Figure 4a	1Q13 Thickness of LNAPL-West Fenceline
Figure 4b	1Q13 Thickness of LNAPL
Figure 5	1Q13 Groundwater Monitoring Well Analytical Exceedances
Figure 6	1Q13 Dissolved Phase Benzene Concentrations in Groundwater
Figure 7	Cross-Section of Benzene 1Q13 Groundwater Analytical Results-Chaffer Street
Figure 8	Cross-Section of Benzene 1Q13 Groundwater Analytical Results-Roxana Public Works Yard

List of Appendices

Appendix A	Groundwater Sampling Data Forms
Appendix B	Data Review Forms and Laboratory Analytical Reports

URS Corporation (URS) is submitting this report on behalf of Shell Oil Products US (SOPUS) for the 1st Quarter 2013 (1Q13) groundwater monitoring well gauging and sampling conducted in the Village of Roxana, Illinois (**Figure 1**). The study area within the Village of Roxana (Village) is generally bounded by the alley north of First Street, Illinois Route 111, the West Fenceline of the WRB Refining, LP (WRB)[1] Wood River Refinery (WRR), and the Roxana Public Works Yard. Some groundwater monitoring wells within the WRR were also sampled as part of this event; this was conducted in cooperation with WRB/Phillips 66 (P66)[2]. For purposes of presentation in this report only, the combined area is collectively referred to as the "Investigation Area."

In an August 5, 2010 letter from the Illinois Environmental Protection Agency (IEPA) to SOPUS (IEPA, 2010), IEPA requested various site characterization and monitoring activities, along with initiation of an interim groundwater monitoring program. This program began in the 4th Quarter 2010 (4Q10), and the first report was submitted on January 14, 2011. On March 3, 2011, a conference call was held among representatives of SOPUS, IEPA and URS to discuss the groundwater monitoring program and IEPA's general comments on the 4Q10 report. Subsequent modifications were incorporated during the 1st Quarter 2011 (1Q11) and 2nd Quarter 2011 (2Q11) Roxana Interim Groundwater Monitoring Program. Additional items/comments regarding the Roxana Interim Groundwater Monitoring Program were presented by IEPA in June 16, 2011 and August 31, 2011 letters. These items/comments were presented in the 3rd Quarter 2011 (3Q11) and 4th Quarter 2011 (4Q11) reports.

In a March 14, 2012 letter (CA-24) from IEPA to SOPUS (IEPA, 2012a), IEPA requested groundwater piezometer ROST-3-PZ and groundwater monitoring well ROST-4-PZ(C) be added to the program. These monitoring locations have been added to the program and the results incorporated into this report. In a second letter (CA-25), dated March 14, 2012 from IEPA to SOPUS (IEPA, 2012b), IEPA requested that perched groundwater be evaluated at the following existing groundwater monitoring wells and piezometers: P-60-12S, P-60-13S, ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ. These groundwater monitoring wells and piezometers were incorporated into the program beginning in the 2nd Quarter 2012 (2Q12).

[1] WRB, formed January 1, 2007, is a 50/50 joint venture between ConocoPhillips (COP) and EnCana US Refineries, LLC (now known as Cenovus Energy, Inc.).
[2] ConocoPhillips Company announced the separation of the Refining and Marketing business from the Exploration & Production business on July 14, 2011. The separation included an ownership change as well as a name change that became effective May 1, 2012. Phillips 66 is now the operator of the WRB WRR.

In the same letter (IEPA, 2012b), IEPA also requested the installation of groundwater monitoring wells in the Village to evaluate potential light non-aqueous phase liquid (LNAPL) and groundwater quality. These groundwater monitoring wells were installed during the 4th Quarter 2012 (4Q12), with the last well being completed on December 8, 2012. These groundwater monitoring wells were incorporated into the program beginning in 1Q13.

Lastly, on May 31, 2012, IEPA verbally requested the following be incorporated into the 2Q12 report:

- The ROST-4 series of groundwater monitoring wells and piezometers in the groundwater elevation contour maps;
- A groundwater contour map focusing on the West Fenceline area in the Village; and
- A regional LNAPL map.

Groundwater monitoring well samples were collected and analyzed during the 1Q13 to meet the requirements of the Interim Groundwater Monitoring Program, as specified in the above guidance. **Figure 2** shows the groundwater monitoring wells that are part of the interim monitoring well network.

The groundwater monitoring well gauging and sampling procedures are discussed in this section as part of Interim Groundwater Monitoring Program, as outlined in the IEPA's letter dated August 5, 2010 (IEPA, 2010), and modified based on the two March 14, 2012 letters (IEPA 2012a and IEPA 2012b).

2.1 ADDITIONAL ACTIVITIES OR MODIFICATIONS

The following additional work activities or modifications were conducted in the 1Q13 sampling event:

- Weekly groundwater monitoring well gauging of selected WRR and Village wells has continued to date to assess groundwater control at the WRR.
- Due to a blockage, groundwater monitoring well P-55 was replaced during 4Q12 with a new groundwater monitoring well and was sampled during 1Q13. P-55 retains the same groundwater monitoring well identification number.
- The one-inch groundwater monitoring well at ROST-3-PZ was replaced during 4Q12 with a new two-inch groundwater monitoring well and was renamed ROST-3-MW. ROST-3-MW was sampled during 1Q13.
- New groundwater monitoring wells MW-16 and MW-22 were installed in the Village during 4Q12 and were sampled during 1Q13.
- New groundwater monitoring wells MW-17 through MW-21 were installed in the Village during 4Q12 and were gauged during 1Q13 to evaluate LNAPL and groundwater conditions.
- New groundwater monitoring well MW-24 was installed in the Village during 1Q13 and will be added into the program beginning in the 2nd Quarter 2013 (2Q13).
- Installation activities and analytical data for groundwater monitoring wells MW-16 through MW-22 can be found in the Groundwater Monitoring Well and Vapor Monitoring Point Installation report dated March 2013 (URS, 2013).

2.2 GROUNDWATER MONITORING WELL GAUGING AND SAMPLING

Groundwater Monitoring Well Gauging

The comprehensive groundwater monitoring well gauging event was conducted on January 2-4 and 7-8, 2013. Additional gauging activities were conduct on January 23, 2013 and February 11, 2013 for newly installed groundwater monitoring wells in the Village. The 1Q13 gauging activities were conducted in conjunction with the 1Q13 gauging event for the WRR to evaluate

groundwater flow direction and identify possible separate phase LNAPL in the Investigation Area. Depth to LNAPL (if present) and depth to water were noted in electronic format using Panasonic Toughbook® technology (Toughbook®) and on groundwater field gauging sheets. The cumulative groundwater monitoring well gauging data can be found in **Table 1**.

Low Flow Groundwater Purging and Sampling

Groundwater samples were collected from groundwater monitoring wells from January 9 through January 30, 2013. Groundwater monitoring well confirmation samples were collected from selected wells in January and March and are discussed in **Section 3.2**.

Groundwater samples were collected via low-flow groundwater purging and sampling procedures. Prior to groundwater monitoring well sampling, the initial water level was measured and recorded in the Toughbook® and on groundwater field data sheets.

Groundwater monitoring wells MW-1 through MW-14, MW-16, MW-22, P-54 through P-59, P-66, P-74, P-93D, ROST-3-MW, ROST-4-PZ(C), and T-12 were purged and sampled using a stainless steel submersible pump, low flow controller, and dedicated polyethylene tubing[3]. The submersible pump, with the proper length of designated polyethylene tubing, was slowly lowered into the groundwater monitoring well to be sampled and the pump intake was set near the midpoint of the groundwater monitoring well screen.

Groundwater monitoring wells P-93A, P-93B, and P-93C, located on the WRR North Property, and P-114, located on the WRR West Property, were purged and sampled using a dedicated submersible stainless steel QED Environmental Systems, Inc. (QED) Well Wizard® groundwater monitoring well sampling pump and bonded dedicated polyethylene tubing. The dedicated pump intake is positioned near the midpoint of the well screen and the pump is operated using a QED MicroPurge Engine/Compressor with a QED Control Box.

For both sampling methods, the tubing from the sampling pump was connected to a flow-through cell, which discharged into a 5-gallon plastic container. Pumping was performed at a low flow rate (≤400 mL/minute) to minimize drawdown of the water level within the groundwater monitoring well. During groundwater purging, water quality parameters (pH, temperature, specific conductivity, turbidity, dissolved oxygen (DO) and oxidation-reduction (ORP)) were measured and recorded on the groundwater field data sheets after every flow-through cell

[3] All designated tubing is stored in a sealed bag designated for the particular groundwater monitoring well between sampling events.

volume. Purging continued until a minimum of three flow-through cell volumes of water were removed and the groundwater quality parameters stabilized. The final water quality parameters were recorded in the Toughbook® and on groundwater field data sheets. Once stabilization was achieved, the groundwater flow was diverted from the flow-through cell and groundwater samples were collected for volatile organic compound (VOC) and semivolatile organic compound (SVOC) analysis.

Perched groundwater monitoring piezometers ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ in the Village, and P-60-12S and P-60-13S in the WRR could not be sampled according to the Stand Operating Procedure (SOP), due to low volumes of water. Groundwater monitoring well P-68 contained LNAPL and was not sampled. Groundwater sampling field parameters can be found in **Tables 2a and 2b,** and groundwater field data sheets are included in **Appendix A**.

2.3 HEALTH & SAFETY, DECONTAMINATION, AND INVESTIGATIVE DERIVED WASTE

Health & Safety

The quarterly sampling activities were performed and governed by the *Roxana / Route 111, WRR, and Rand Avenue Investigation Health and Safety Plan,* dated January 2013 (URS, 2013), as prepared by URS.

Prior to beginning site work and at the start of work each day, a daily safety meeting was held. The purpose of this meeting was to discuss the day's planned activities and to address any potential health and safety concerns. As a part of the daily safety meeting, job safety analyses (JSAs) were reviewed to address task specific safety concerns.

URS field personnel wore U.S. Environmental Protection Agency (USEPA) modified Level D personal protective equipment (PPE), which included hard hat, steel-toed boots, safety glasses, etc. In addition, work within the WRR was performed wearing flame retardant clothing (FRCs) per WRR requirements (in areas where required).

A photoionization detector (PID) with a 10.6 electron volt (eV) lamp, combustible gas indicator (CGI), and individual hydrogen sulfide gas detectors (for locations inside WRR) were used during the field activities to monitor air quality. A benzene gas monitor with a 9.8 eV lamp was available during field activities to monitor benzene levels, if necessary. Field instruments were calibrated prior to use each day in accordance with the manufacturer's specifications.

Decontamination

Field personnel and equipment underwent decontamination procedures to ensure the health and safety of those present, to maintain sample integrity, and to minimize cross contamination. Sampling equipment (e.g., groundwater pump) was decontaminated prior to the collection of each analytical sample, between sample locations, and prior to leaving the investigation site by washing with LiquiNox® and a distilled water rinse. Interface probes were decontaminated using isopropyl alcohol. Personnel and small equipment decontamination were performed at the sample locations.

Investigation Derived Waste

Investigative derived waste (IDW), such as purge water and decontamination water generated during groundwater sampling activities, was collected, stored, and disposed of in accordance with the Resource Conservation and Recovery Act (RCRA) and United States Department of Transportation (DOT) regulations. Expendable materials (e.g., disposable sampling equipment such as gloves and tubing) were collected in trash bags and disposed as municipal waste.

Decontamination fluids and purge water from groundwater monitoring wells located at the Public Works Yard (MW-7 and MW-8) were staged in 55-gallon steel drums at the Public Works Yard and removed by Heritage Environmental Services the following day. This material is managed as hazardous waste based on prior characterization and was disposed at the Heritage Environmental Services, LLC facility in Indianapolis, Indiana.

Decontamination fluids and purge water from other groundwater monitoring wells in the Village were staged in 55-gallon steel drums located near the northeastern portion of the former Tannery Property. This material is managed as non-hazardous waste based on prior characterization and was disposed at the Heritage Environmental Services, LLC facility in Indianapolis, Indiana.

Decontamination fluids and purge water related to, or generated from, work within the WRR were collected and disposed through the WRR's National Pollutant Discharge Elimination System (NPDES)-permitted Wastewater Treatment Plant (WWTP).

2.4 GROUNDWATER SAMPLE HANDLING AND LABORATORY TESTING

Samples were collected in laboratory-supplied containers and labeled in the field. Sample information was recorded on a chain of custody (COC) form at the time of collection. The sample identification data (ID) format is "well ID-ROX-date". COCs are included with laboratory analytical reports in **Appendix B**.

Upon collection and labeling, sample containers were immediately placed inside an iced cooler, packed in such a way as to help prevent breakage and maintain inside temperature at or below 4°C. The samples were then delivered via overnight courier, under the proper COC documentation, to the laboratory for analysis.

Samples were analyzed by Accutest Laboratories in Marlborough, Massachusetts for VOCs via USEPA Methods 8260B and 8011, for SVOCs via USEPA Method 8270C, and for Polycyclic Aromatic Hydrocarbons (PAHs) via USEPA Method 8270LL. The 8011 method for VOCs was used in order to achieve lower reporting limits specified in the WRR RCRA Part B Permit for 1,2-dibromoethane and 1,2-dibromo-3-chloropropane, and the 8270LL method was used for PAHs. Per direction from IEPA the Interim Groundwater Monitoring Program concentration limits need to be consistent with those in the permit.

2.5 DATA QUALITY REVIEW AND DATA MANAGEMENT

Laboratory data were provided in electronic form and were independently reviewed and qualified by URS. One hundred percent of the data were subjected to a data quality review (Level III data review). Evaluation of the data followed procedures outlined in the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (USEPA, 2008). The laboratory assigned data qualifiers on the basis of their quality control or to indicate sample analysis information. Data qualifiers were also added by URS, as appropriate, and are included on the data table and the laboratory results in **Appendix B**. The results of the data review are discussed in **Section 3.2**.

Field data and documentation collected as part of this scope of work became part of the project file. URS maintains the files for the site, and the database management system.

The following documentation was completed and supplements the COC records:

- Field logbooks;
- Groundwater field gauging sheets;
- Groundwater field data sheets;
- Field sample collection data via electronic Toughbook®; and
- Safety documentation

This section presents the results of the 1Q13 groundwater sampling event.

3.1 GROUNDWATER MONITORING WELL GAUGING RESULTS

Comprehensive groundwater monitoring well gauging for the 1Q13 event was conducted on January 2-4 and 7-8, 2013. Additional gauging activities were conducted on January 23, 2013 and February 11, 2013 for newly installed groundwater monitoring wells in the Village. Groundwater monitoring well gauging was conducted in accordance with the Interim Groundwater Monitoring Program and the data can be found in **Table 1**. Groundwater levels have dropped approximately one to two feet since 4Q12; however, water levels continue to be above the top of the screens in many of the wells gauged during the 1Q13 event. The potentiometric surface observed during the 1Q13 groundwater monitoring well gauging (**Figures 3a and 3b**) illustrates groundwater flow toward the WRR groundwater depression wells.

Perched groundwater was evaluated in the Village and in the WRR along the West Fenceline during 1Q13. During 1Q13 comprehensive groundwater gauging, groundwater was encountered in P-60-12S and was not encountered in P-60-13S, ROST-5-PZ, ROST-10-PZ, and ROST-21-PZ. ROST-7-PZ was inaccessible during 1Q13 and could not be gauged. The 1Q13 gauging results for perched groundwater monitoring wells and piezometers can be found in **Table 1**.

During the 1Q13 groundwater monitoring well gauging event, LNAPL was detected in groundwater monitoring wells P-60-S, P-61, P-68, P-92A, T-7, and T-24, all of which are in the WRR **(Table 1)**. LNAPL was observed above the top of the groundwater monitoring well screens in WRR wells P-61, P-68, P-92A, and T-7. LNAPL was observed below the top of the groundwater monitoring well screens in WRR well P-60-S and T-24. LNAPL observed in groundwater monitoring wells located on the WRR property was removed for on-site reprocessing by P66. **Figures 4a and 4b** illustrate the measured LNAPL thickness observed during the 1Q13 gauging event.

LNAPL removal in the Village and WRR, if present, is conducted during quarterly and weekly gauging events.

3.2 DATA QUALITY REVIEW RESULTS

A total of thirteen sample delivery groups were prepared and sent to Accutest Laboratories in Marlborough, MA. One sample delivery group was prepared and sent to Teklab, Inc. in Collinsville, IL as a confirmation samples for wells MW-10 and P-55. Forty-two different groundwater sample sets were prepared and analyzed for VOCs and SVOCs (including PAHs).

This included 35 different investigative sample sets, a confirmation VOC sample set MW-4, three field duplicate sets, and two matrix spike/matrix spike duplicate (MS/MSDs) sets.

Trip blanks, equipment blanks, and laboratory method blanks were analyzed to evaluate for the existence and magnitude of any contamination resulting from field and laboratory activities. Three equipment blank sets were collected for this quarter's sampling event. A trip blank set was included in every cooler which contained samples for VOC analysis. A total of fifteen trip blank sets were analyzed for VOCs for the groundwater sampling event. Compounds qualified by URS are specified in the data reviews presented in **Appendix B**.

Based on laboratory control/laboratory control sample duplicate (LCS/LCSD), MS/MSD, surrogate, holding time, and field duplicate criteria, the groundwater results reported were accepted for their intended use. Additional information is provided in the Data Reviews in **Appendix B**.

3.3 ANALYTICAL RESULTS AND DISCUSSION

Tables 2a and 2b present cumulative information on groundwater sampling field parameters for main aquifer and perched wells, respectively. The laboratory analytical results for the groundwater samples collected during this event are presented in **Table 3**.

The following compounds were reported at concentrations at or above the laboratory reporting limit in groundwater samples during the 1Q13 sampling event. Italic font denotes constituent detected for the first time.

VOCs	
Benzene	Naphthalene[4]
n-Butylbenzene	n-Propylbenzene
sec-Butylbenzene	Toluene
tert-Butylbenzene	*1,2,3-Trimethylbenzene*
Chlorobenzene	1,2,4-Trimethylbenzene
Chloroethane	1,3,5-Trimethylbenzene
Chloromethane	Vinyl acetate
Ethylbenzene	m,p-Xylene
Hexane	o-Xylenes
Isopropylbenzene (Cumene)	Xylenes (total)
Methyl tert-Butyl Ether (MTBE)	

[4] Beginning in 4Q12, naphthalene was analyzed via 8260 VOC, and prior historic results were reported by PAH analysis.

SVOCs	
Acenapthene	2,4-Dimethylphenol
Acenaphthylene	Fluoranthene
Anthracene	Fluorene
Benzo(a)anthracene	Hexachlorobenzene
Benzo(a)pyrene	Indeno(1,2,3-cd)pyrene
Benzo(b)fluoranthene	1-Methylnaphthalene
Benzo(g,h,i)perylene	2-Methylnaphthalene
Beno(k)fluoranthene	2-Methylphenol(o-Cresol)
bis(2-Ethylhexyl)phthalate	3&4-Methylphenol(m&p-Cresol)
Chrysene (1,2-Benzphenanthracene)	Phenanthrene
Dibenzo(a,h)anthracene	Phenol
Dibenzofuran	Pyrene

Two VOCs, hexane and 1,2,3-trimethylbenzene, were detected in this event but were not detected in past events. The analytical detections were compared to the concentration limits as provided in Section IV E of the Permit for the WRB Refining LP Wood River Refinery[5].These concentration limits include the IEPA Tiered Approach to Corrective Action Objectives (TACO) Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route (35 IAC 742 Appendix B, Table E), and the Groundwater Quality Standards for Class I: Potable Resource Groundwater (35 IAC 620, Subpart D), the IEPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables), and R08-18, Final Amendments to Groundwater Quality Standards (35 IAC 620). The results of this comparison are presented in **Table 3**. IEPA published screening values were not available for the following detected VOCs: sec-butylbenzene, tert-butylbenzene, chloroethane, chloromethane, hexane, 1,2,3-trimethylbenzene, and 1,2,4-trimethylbenzene.

Laboratory analytical results for the following VOCs exceeded their respective groundwater screening criteria in one or more samples this event: benzene, chlorobenzene, ethylbenzene, MTBE, naphthalene, toluene, 1,3,5-trimethylbenzene, and xylenes (total). The laboratory analytical results for the following SVOCs exceeded their respective groundwater screening criteria in one or more samples this event: benzo(a)anthracene, benzo(a)pyrene, bis(2-ethylhexyl)phthalate, hexachlorobenzene, 2-methylnapthalene, and phenol. The analytical results from these groundwater samples are on **Table 3**. **Figure 5** presents concentrations of analytes that exceeded the indicated screening criteria for 1Q13.

[5] IEPA requested that the Interim Groundwater Program be consistent with the RCRA Part B Permit.

Figure 6 presents a plan view depiction of benzene analytical results in groundwater across the site. **Figure 7** presents a cross-section along Chaffer Street with a vertical distribution of the benzene concentrations in groundwater superimposed. **Figure 8** presents a cross-section across the Roxana Public Works Yard with a vertical distribution of the benzene analytical results in groundwater superimposed.

URS conducted the 1Q13 Roxana Interim Groundwater Monitoring Program and the following conclusions are based on the data and information collected as part of this program.

- During 1Q13, groundwater flow from the Investigation Area moved toward groundwater depression wells at the WRR. Groundwater levels were approximately one to two feet lower than in the previous quarter.
- Perched groundwater was evaluated at groundwater monitoring wells P-60-12S, P-60-13S, ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ. During the evaluation, groundwater sampling could not be performed because slow recharge prevented sampling per the SOP or the perched groundwater monitoring well was dry.
- With two exceptions, the analytical results from 1Q13 are generally similar to the prior quarter. The benzene concentration in MW-4 was higher than previous sampling events. The cause of this is being evaluated and current information suggests the northerly groundwater flow component toward groundwater depression well W-85 is the cause. Due to the benzene concentration observed in well MW-22 (4th Street), a step-out groundwater monitoring well was installed further west on 4th Street (MW-24). This groundwater monitoring well will be sampled beginning in 2Q13.

Illinois Environmental Protection Agency (IEPA), 2010; (IEPA, 2010); *Letter providing approval with comments the SOPUS 2010 Delineation Report*. Issued to Shell Oil Products US (SOPUS), dated August 5, 2010.

Illinois Environmental Protection Agency (IEPA), 2012, (IEPA, 2012a), *Letter (CA-24) in response to ROST-4-PZ Delineation and Sampling Report.* Issued to Shell Oil Products US (SOPUS), dated March 14, 2012.

Illinois Environmental Protection Agency (IEPA), 2012, (IEPA, 2012b), *Letter (CA-25) in Response to Agency Comments Provided in June 16, 2011 Letter.* Issued to Shell Oil Products US (SOPUS), dated March 14, 2012.

URS Corporation (URS), 2013 (URS, 2013); *Route 111/Rand Avenue Vicinity Investigation Health and Safety Plan – Roxana, Illinois*; Prepared for Shell Oil Products US (SOPUS); dated January 2013.

URS Corporation (URS), 2013 (URS, 2013); *Groundwater Monitoring Well and Vapor Monitoring Point Installation*; dated March 2013. Prepared for Shell Oil Products US.

US Environmental Protection Agency (USEPA), June 2008; *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
MW-01										
4Q10	442.86	11/12/2010	NE	36.91	NA	NA	NA	405.95	399.45 - 384.45 (43.41 - 58.41)	*
1Q11	442.86	1/13/2011	NE	37.58	NA	NA	NA	405.28		*
2Q11	442.86	4/25/2011	NE	38.38	NA	NA	NA	404.48		*
3Q11	442.86	7/5/2011	NE	35.77	NA	NA	NA	407.09		*
	442.86	9/19/2011	NE	35.15	NA	NA	NA	407.71		*
4Q11	442.86	10/5/2011	NE	35.48	NA	NA	NA	407.38		*
1Q12	442.65	1/3/2012	NE	37.65	NA	NA	NA	405.00	392.67 - 382.67 (49.98 - 59.98)	*1" Piezometer replaced with a 2" groundwater monitoring well
2Q12	442.65	4/2/2012	NE	38.85	NA	NA	NA	403.80		*
3Q12	442.65	7/2/2012	NE	39.12	NA	NA	NA	403.53		*
4Q12	442.65	10/1/2012	NE	40.92	NA	NA	NA	401.73		*
1Q13	442.65	1/3/2013	NE	41.95	NA	NA	NA	400.70		*
MW-02										
4Q10	443.93	11/12/2010	NE	38.12	NA	NA	NA	405.81	396.74 - 381.74 (47.19 - 62.19)	*
1Q11	443.93	1/13/2011	NE	38.67	NA	NA	NA	405.26		*
2Q11	443.93	4/25/2011	NE	39.61	NA	NA	NA	404.32		*
3Q11	443.93	7/5/2011	NE	37.04	NA	NA	NA	406.89		*
	443.93	9/19/2011	NE	36.36	NA	NA	NA	407.57		*
4Q11	443.93	10/5/2011	NE	36.65	NA	NA	NA	407.28		*
1Q12	443.77	1/3/2012	NE	38.88	NA	NA	NA	404.89	392.45 - 382.45 (51.32 - 61.32)	*1" Piezometer replaced with a 2" groundwater monitoring well
2Q12	443.77	4/2/2012	NE	40.04	NA	NA	NA	403.73		*
3Q12	443.77	7/2/2012	NE	40.32	NA	NA	NA	403.45		*
4Q12	443.77	10/1/2012	NE	42.10	NA	NA	NA	401.67		*
1Q13	443.77	1/3/2013	NE	43.10	NA	NA	NA	400.67		*
MW-03										
4Q10	430.36	11/12/2010	NE	24.05	NA	NA	NA	406.31	399.38 - 384.38 (30.98 - 45.98)	*
1Q11	430.36	1/13/2011	NE	24.92	NA	NA	NA	405.44		*
2Q11	430.36	4/25/2011	NE	25.42	NA	NA	NA	404.94		*
3Q11	430.36	7/5/2011	NE	22.72	NA	NA	NA	407.64		*
	430.36	9/19/2011	NE	22.40	NA	NA	NA	407.96		*
4Q11	430.36	10/5/2011	NE	22.76	NA	NA	NA	407.60		*
1Q12	430.08	1/3/2012	NE	24.84	NA	NA	NA	405.24	395.41 - 385.41 (34.67 - 44.67)	*1" Piezometer replaced with a 2" groundwater monitoring well
2Q12	430.08	4/2/2012	NE	26.04	NA	NA	NA	404.04		*
3Q12	430.08	7/2/2012	NE	26.30	NA	NA	NA	403.78		*
4Q12	430.08	10/1/2012	NE	28.13	NA	NA	NA	401.95		*
1Q13	430.08	1/3/2013	NE	29.22	NA	NA	NA	400.86		*
MW-04										
4Q10	441.58	11/12/2010	NE	35.38	NA	NA	NA	406.20	398.95 - 383.95 (42.63 - 57.63)	*
1Q11	441.58	1/13/2011	NE	36.04	NA	NA	NA	405.54		*
2Q11	441.58	4/25/2011	NE	36.74	NA	NA	NA	404.84		*
3Q11	441.58	7/5/2011	NE	34.15	NA	NA	NA	407.43		*
	441.58	9/19/2011	NE	33.65	NA	NA	NA	407.93		*
4Q11	441.58	10/5/2011	NE	33.99	NA	NA	NA	407.59		*
1Q12	441.14	1/3/2012	NE	35.97	NA	NA	NA	405.17	395.08 - 385.08 (46.06 - 56.06)	*1" Piezometer replaced with a 2" groundwater monitoring well
2Q12	441.14	4/2/2012	NE	37.11	NA	NA	NA	404.03		*
3Q12	441.14	7/2/2012	NE	37.43	NA	NA	NA	403.71		*
4Q12	441.14	10/1/2012	NE	39.27	NA	NA	NA	401.87		*
1Q13	441.14	1/3/2013	NE	40.27	NA	NA	NA	400.87		*
MW-05										
4Q10	429.73	11/12/2010	NE	23.32	NA	NA	NA	406.41	398.60 - 383.60 (31.13 - 46.13)	*
1Q11	429.73	1/13/2011	NE	24.15	NA	NA	NA	405.58		*
2Q11	429.73	4/25/2011	NE	24.65	NA	NA	NA	405.08		*
3Q11	429.73	7/5/2011	NE	22.00	NA	NA	NA	407.73		*
	429.73	9/19/2011	NE	21.72	NA	NA	NA	408.01		*
4Q11	429.73	10/5/2011	NE	22.06	NA	NA	NA	407.67		*
1Q12	429.80	1/3/2012	NE	24.45	NA	NA	NA	405.35	395.83 - 385.83 (33.97 - 43.97)	*1" Piezometer replaced with a 2" groundwater monitoring well
2Q12	429.80	4/2/2012	NE	25.65	NA	NA	NA	404.15		*
3Q12	429.80	7/2/2012	NE	25.91	NA	NA	NA	403.89		*
4Q12	429.80	10/1/2012	NE	27.80	NA	NA	NA	402.00		*
1Q13	429.80	1/3/2013	NE	28.86	NA	NA	NA	400.94		*
MW-06A										
4Q10	432.42	11/12/2010	NE	25.62	NA	NA	NA	406.80	400.44 - 385.44 (31.98 - 46.98)	*
1Q11	432.42	1/13/2011	NE	26.36	NA	NA	NA	406.06		*
2Q11	432.42	4/25/2011	NE	26.78	NA	NA	NA	405.64		*
3Q11	432.42	7/5/2011	NE	24.21	NA	NA	NA	408.21		*
	432.42	9/19/2011	NE	24.07	NA	NA	NA	408.35		*
4Q11	432.42	10/5/2011	NE	24.44	NA	NA	NA	407.98		*
1Q12	432.14	1/3/2012	NE	26.34	NA	NA	NA	405.80	397.31 - 387.31 (34.83 - 44.83)	*1" Piezometer replaced with a 2" groundwater monitoring well
2Q12	432.14	4/2/2012	NE	27.57	NA	NA	NA	404.57		*
3Q12	432.14	7/2/2012	NE	27.88	NA	NA	NA	404.26		*
4Q12	432.14	10/1/2012	NE	28.81	NA	NA	NA	403.33		*
1Q13	432.14	1/3/2013	NE	30.80	NA	NA	NA	401.34		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
MW-06B										
4Q10	432.29	11/12/2010	NE	25.47	NA	NA	NA	406.82	368.24 - 363.24 (64.05 - 69.05)	*
1Q11	432.29	1/13/2011	NE	26.21	NA	NA	NA	406.08		*
2Q11	432.29	4/25/2011	NE	26.65	NA	NA	NA	405.64		*
3Q11	432.29	7/5/2011	NE	24.08	NA	NA	NA	408.21		*
4Q11	432.29	10/5/2011	NE	24.28	NA	NA	NA	408.01		*
1Q12	432.29	1/3/2012	NE	26.40	NA	NA	NA	405.89		*
2Q12	432.29	4/2/2012	NE	27.61	NA	NA	NA	404.68		*
3Q12	432.29	7/2/2012	NE	27.92	NA	NA	NA	404.37		*
4Q12	432.29	10/1/2012	NE	29.86	NA	NA	NA	402.43		*
1Q13	432.29	1/3/2013	NE	30.87	NA	NA	NA	401.42		*
MW-06C										
4Q10	432.11	11/12/2010	NE	25.25	NA	NA	NA	406.86	347.16 - 342.16 (84.95 - 89.95)	*
1Q11	432.11	1/13/2011	NE	25.97	NA	NA	NA	406.14		*
2Q11	432.11	4/25/2011	NE	26.73	NA	NA	NA	405.38		*
3Q11	432.11	7/5/2011	NE	23.80	NA	NA	NA	408.31		*
4Q11	432.11	10/5/2011	NE	24.03	NA	NA	NA	408.08		*
1Q12	432.11	1/3/2012	NE	26.17	NA	NA	NA	405.94		*
2Q12	432.11	4/2/2012	NE	27.40	NA	NA	NA	404.71		*
3Q12	432.11	7/2/2012	NE	27.71	NA	NA	NA	404.40		*
4Q12	432.11	10/1/2012	NE	29.70	NA	NA	NA	402.41		*
1Q13	432.11	1/3/2013	NE	30.65	NA	NA	NA	401.46		*
MW-06D										
4Q10	431.99	11/12/2010	NE	25.13	NA	NA	NA	406.86	327.27 - 322.27 (104.72 - 109.72)	*
1Q11	431.99	1/13/2011	NE	25.87	NA	NA	NA	406.12		*
2Q11	431.99	4/25/2011	NE	26.30	NA	NA	NA	405.69		*
3Q11	431.99	7/5/2011	NE	23.67	NA	NA	NA	408.32		*
4Q11	431.99	10/5/2011	NE	23.95	NA	NA	NA	408.04		*
1Q12	431.99	1/3/2012	NE	26.05	NA	NA	NA	405.94		*
2Q12	431.99	4/2/2012	NE	27.46	NA	NA	NA	404.53		*
3Q12	431.99	7/2/2012	NE	27.58	NA	NA	NA	404.41		*
4Q12	431.99	10/1/2012	NE	29.51	NA	NA	NA	402.48		*
1Q13	431.99	1/3/2013	NE	30.51	NA	NA	NA	401.48		*
MW-07										
4Q10	443.10	11/12/2010	NE	36.93	NA	NA	NA	406.17	400.18 - 390.18 (42.92 - 52.92)	*
1Q11	443.10	1/13/2011	NE	37.52	NA	NA	NA	405.58		*
2Q11	443.10	4/25/2011	NE	38.18	NA	NA	NA	404.92		*
3Q11	443.10	7/5/2011	NE	35.65	NA	NA	NA	407.45		*
	443.10	9/19/2011	NE	35.22	NA	NA	NA	407.88		*
4Q11	443.10	10/5/2011	NE	25.52	NA	NA	NA	417.58		*
1Q12	443.10	1/3/2012	NE	37.79	NA	NA	NA	405.31		*
2Q12	443.10	4/2/2012	NE	38.91	NA	NA	NA	404.19		*
3Q12	443.10	7/2/2012	NE	39.23	NA	NA	NA	403.87		*
4Q12	443.10	10/1/2012	NE	41.10	NA	NA	NA	402.00		*
1Q13	443.10	1/3/2013	NE	42.10	NA	NA	NA	401.00		*
MW-08										
4Q10	434.11	11/12/2010	NE	27.84	NA	NA	NA	406.27	400.51 - 390.51 (33.60 - 43.60)	*
1Q11	434.11	1/13/2011	NE	28.59	NA	NA	NA	405.52		*
2Q11	434.11	4/25/2011	NE	29.15	NA	NA	NA	404.96		*
3Q11	434.11	7/5/2011	NE	26.55	NA	NA	NA	407.56		*
4Q11	434.11	10/5/2011	NE	26.57	NA	NA	NA	407.54		*
1Q12	434.11	1/3/2012	NE	28.84	NA	NA	NA	405.27		*
2Q12	434.11	4/2/2012	NE	30.01	NA	NA	NA	404.10		*
3Q12	434.11	7/2/2012	NE	30.29	NA	NA	NA	403.82		*
4Q12	434.11	10/1/2012	NE	32.17	NA	NA	NA	401.94		*
1Q13	434.11	1/3/2013	NE	33.21	NA	NA	NA	400.90		*
MW-09										
4Q10	445.20	11/12/2010	NE	39.00	NA	NA	NA	406.20	398.75 - 388.75 (46.45 - 56.45)	*
1Q11	445.20	1/13/2011	NE	39.62	NA	NA	NA	405.58		*
2Q11	445.20	4/25/2011	NE	NM	NA	NA	NA	NA		Area flooded; unable to access to well
3Q11	445.20	7/5/2011	NE	38.06	NA	NA	NA	407.14		*
	445.20	9/19/2011	NE	37.27	NA	NA	NA	407.93		*
4Q11	445.20	10/5/2011	NE	37.56	NA	NA	NA	407.64		*
1Q12	445.20	1/3/2012	NE	39.50	NA	NA	NA	405.70		*
2Q12	445.20	4/2/2012	NE	40.77	NA	NA	NA	404.43		*
3Q12	445.20	7/2/2012	NE	40.07	NA	NA	NA	405.13		*
4Q12	445.20	10/1/2012	NE	42.75	NA	NA	NA	402.45		*
1Q13	445.20	1/2/2013	NE	43.92	NA	NA	NA	401.28		*
MW-10										
4Q10	445.03	11/12/2010	NE	38.97	NA	NA	NA	406.06	400.60 - 390.60 (44.43 - 54.43)	*
1Q11	445.03	1/13/2011	NE	39.40	NA	NA	NA	405.63		*
2Q11	445.03	4/25/2011	NE	40.26	NA	NA	NA	404.77		*
3Q11	445.03	7/5/2011	NE	38.01	NA	NA	NA	407.02		*
	445.03	9/19/2011	NE	37.24	NA	NA	NA	407.79		*
4Q11	445.03	10/5/2011	NE	37.47	NA	NA	NA	407.56		*
1Q12	445.03	1/3/2012	NE	39.39	NA	NA	NA	405.64		*
2Q12	445.03	4/2/2012	NE	40.58	NA	NA	NA	404.45		*
3Q12	445.03	7/2/2012	NE	40.92	NA	NA	NA	404.11		*
4Q12	445.03	10/1/2012	NE	42.69	NA	NA	NA	402.34		*
1Q13	445.03	1/2/2013	NE	43.81	NA	NA	NA	401.22		*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
MW-11										
4Q10	442.33	11/12/2010	NE	36.39	NA	NA	NA	405.94	400.67 - 390.67 (41.66 - 51.66)	*
1Q11	442.33	1/13/2011	NE	37.15	NA	NA	NA	405.18		*
2Q11	442.33	4/25/2011	NE	38.00	NA	NA	NA	404.33		*
3Q11	442.33	7/5/2011	NE	35.46	NA	NA	NA	406.87		*
	442.33	9/19/2011	NE	34.68	NA	NA	NA	407.65		*
4Q11	442.33	10/5/2011	NE	34.07	NA	NA	NA	408.26		*
1Q12	442.33	1/3/2012	NE	37.21	NA	NA	NA	405.12		*
2Q12	442.33	4/2/2012	NE	38.44	NA	NA	NA	403.89		*
3Q12	442.33	7/2/2012	NE	38.68	NA	NA	NA	403.65		*
4Q12	442.33	10/1/2012	NE	40.42	NA	NA	NA	401.91		*
1Q13	442.33	1/2/2013	NE	41.49	NA	NA	NA	400.84		*
MW-12										
4Q10	442.60	11/12/2010	NE	36.63	NA	NA	NA	405.97	400.68 - 390.68 (41.92 - 51.92)	*
1Q11	442.60	1/13/2011	NE	37.42	NA	NA	NA	405.18		*
2Q11	442.60	4/25/2011	NE	38.20	NA	NA	NA	404.40		*
3Q11	442.60	7/5/2011	NE	35.55	NA	NA	NA	407.05		*
	442.60	9/19/2011	NE	34.88	NA	NA	NA	407.72		*
4Q11	442.60	10/5/2011	NE	35.20	NA	NA	NA	407.40		*
1Q12	442.60	1/3/2012	NE	37.57	NA	NA	NA	405.03		*
2Q12	442.60	4/2/2012	NE	38.75	NA	NA	NA	403.85		*
3Q12	442.60	7/2/2012	NE	39.01	NA	NA	NA	403.59		*
4Q12	442.60	10/1/2012	NE	40.78	NA	NA	NA	401.82		*
1Q13	442.60	1/3/2013	NE	41.86	NA	NA	NA	400.74		*
MW-13										
1Q11	430.27	1/13/2011	NE	24.28	NA	NA	NA	405.99	404.70 - 394.70 (25.57 - 35.57)	*
2Q11	430.27	4/25/2011	NE	24.47	NA	NA	NA	405.80		*
3Q11	430.27	7/5/2011	NE	21.67	NA	NA	NA	408.60		*
	430.27	9/19/2011	NE	21.88	NA	NA	NA	408.39		*
4Q11	430.27	10/6/2011	NE	21.20	NA	NA	NA	409.07		*
1Q12	430.27	1/3/2012	NE	24.35	NA	NA	NA	405.92		*
2Q12	430.27	4/2/2012	NE	25.48	NA	NA	NA	404.79		*
3Q12	430.27	7/3/2012	NE	25.95	NA	NA	NA	404.32		
4Q12	430.27	10/1/2012	NE	40.44	NA	NA	NA	389.83		
	430.27	10/2/2012	NE	27.99	NA	NA	NA	402.28		
1Q13	430.27	1/7/2013	NE	29.07	NA	NA	NA	401.20		
MW-14										
1Q12	434.44	1/3/2012	NM	NM	NA	NA	NA	NA	401.02 - 391.02 (33.42 - 43.42)	Restricted Area
2Q12	434.44	4/2/2012	NM	NM	NA	NA	NA	NA		Restricted Area
3Q12	434.44	7/5/2012	NE	29.87	NA	NA	NA	404.57		*
4Q12	434.44	10/2/2012	NE	31.86	NA	NA	NA	402.58		*
1Q13	434.44	1/7/2013	NE	32.71	NA	NA	NA	401.73		*
MW-16										
1Q13	443.39	1/23/2013	NE	43.05	NA	NA	NA	400.34	406.33 - 396.33 (37.43 - 47.43)	Installed during 4Q12
MW-17										
1Q13	441.57	2/11/2013	NE	41.75	NA	NA	NA	399.82	407.28 - 392.28 (34.55 - 49.55)	Installed during 4Q12
MW-18										
1Q13	442.04	2/11/2013	NE	42.25	NA	NA	NA	399.79	407.12 - 392.12 (35.25 - 50.25)	Installed during 4Q12
MW-19										
1Q13	442.77	2/11/2013	NE	42.88	NA	NA	NA	399.89	406.43 - 391.43 (36.70 - 51.70)	Installed during 4Q12
MW-20										
1Q13	443.67	2/11/2013	NE	43.66	NA	NA	NA	400.01	407.79 - 392.79 (36.23 - 51.23)	Installed during 4Q12
MW-21										
1Q13	443.81	2/11/2013	NE	43.53	NA	NA	NA	400.28	408.80 - 393.80 (35.30 - 50.30)	Installed during 4Q12
MW-22										
1Q13	442.16	1/23/2013	NE	41.80	NA	NA	NA	400.36	404.28 - 394.28 (38.21 - 48.21)	Installed during 4Q12
P-01										
2Q10	442.56	4/1/2010	NE	30.11	NA	NA	NA	412.45	380.61 - 375.61 (61.95 - 66.95)	*
3Q10	442.56	7/1/2010	NE	29.49	NA	NA	NA	413.07		*
4Q10	442.56	10/1/2010	NE	27.86	NA	NA	NA	414.70		*
1Q11	442.56	1/1/2011	NE	28.52	NA	NA	NA	414.04		*
2Q11	442.56	4/1/2011	NE	27.30	NA	NA	NA	415.26		*
3Q11	442.56	7/5/2011	NE	25.51	NA	NA	NA	417.05		*
	442.56	9/19/2011	NE	27.75	NA	NA	NA	414.81		*
4Q11	442.56	10/6/2011	NE	28.15	NA	NA	NA	414.41		*
1Q12	442.56	1/3/2012	NE	28.93	NA	NA	NA	413.63		*
2Q12	442.56	4/2/2012	NE	29.38	NA	NA	NA	413.18		*
3Q12	442.56	7/2/2012	NE	30.60	NA	NA	NA	411.96		*
4Q12	442.56	10/1/2012	NE	32.35	NA	NA	NA	410.21		*
1Q13	442.56	1/3/2013	NE	33.96	NA	NA	NA	408.60		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-4U										
2Q10	442.50	4/1/2010	NE	32.06	NA	NA	NA	410.44	361.35 - 359.35 (81.15 - 83.15)	*
3Q10	442.50	7/1/2010	NE	31.00	NA	NA	NA	411.50		*
4Q10	442.50	10/1/2010	NE	29.68	NA	NA	NA	412.82		*
1Q11	442.50	1/1/2011	NE	29.81	NA	NA	NA	412.69		*
2Q11	442.50	4/1/2011	NE	29.10	NA	NA	NA	413.40		*
3Q11	442.50	7/5/2011	NE	27.02	NA	NA	NA	415.48		*
	442.50	9/19/2011	NE	28.71	NA	NA	NA	413.79		*
4Q11	442.50	10/6/2011	NE	29.17	NA	NA	NA	413.33		*
1Q12	442.50	1/3/2012	NE	40.32	NA	NA	NA	402.18		*
2Q12	442.50	4/2/2012	NE	30.80	NA	NA	NA	411.70		*
3Q12	442.50	7/2/2012	NE	31.70	NA	NA	NA	410.80		*
4Q12	442.50	10/1/2012	NE	33.65	NA	NA	NA	408.85		*
1Q13	442.50	1/3/2013	NE	35.10	NA	NA	NA	407.40		*
P-5L										
2Q10	443.79	4/1/2010	NE	32.79	NA	NA	NA	411.00	301.89 - 299.89 (141.90 - 143.90)	*
3Q10	443.79	7/1/2010	NE	30.30	NA	NA	NA	413.49		*
4Q10	443.79	10/1/2010	NE	29.21	NA	NA	NA	414.58		*
1Q11	443.79	1/1/2011	NE	29.55	NA	NA	NA	414.24		*
2Q11	443.79	4/1/2011	NE	28.10	NA	NA	NA	415.69		*
3Q11	443.79	7/5/2011	NE	25.87	NA	NA	NA	417.92		*
	443.79	9/19/2011	NE	28.47	NA	NA	NA	415.32		*
4Q11	443.79	10/6/2011	NE	29.16	NA	NA	NA	414.63		*
1Q12	443.79	1/3/2012	NE	30.42	NA	NA	NA	413.37		*
2Q12	443.79	4/2/2012	NE	30.56	NA	NA	NA	413.23		*
3Q12	443.79	7/2/2012	NE	31.60	NA	NA	NA	412.19		*
4Q12	443.79	10/1/2012	NE	33.60	NA	NA	NA	410.19		*
1Q13	443.79	1/3/2013	NE	35.17	NA	NA	NA	408.62		*
P-5U										
2Q10	444.15	4/1/2010	NE	30.97	NA	NA	NA	413.18	313.52 - 311.52 (130.63 - 132.63)	*
3Q10	444.15	7/1/2010	NE	31.95	NA	NA	NA	412.20		*
4Q10	444.15	10/1/2010	NE	30.82	NA	NA	NA	413.33		*
1Q11	444.15	1/1/2011	NE	30.96	NA	NA	NA	413.19		*
2Q11	444.15	4/1/2011	NE	29.91	NA	NA	NA	414.24		*
3Q11	444.15	7/5/2011	NE	27.80	NA	NA	NA	416.35		*
	444.15	9/19/2011	NE	29.84	NA	NA	NA	414.31		*
4Q11	444.15	10/6/2011	NE	30.41	NA	NA	NA	413.74		*
1Q12	444.15	1/3/2012	NE	30.42	NA	NA	NA	413.73		*
2Q12	444.15	4/2/2012	NE	31.96	NA	NA	NA	412.19		*
3Q12	444.15	7/2/2012	NE	32.80	NA	NA	NA	411.35		*
4Q12	444.15	10/1/2012	NE	35.00	NA	NA	NA	409.15		*
1Q13	444.15	1/3/2013	NE	36.41	NA	NA	NA	407.74		*
P-6L										
4Q11	443.20	10/6/2011	NE	28.92	NA	NA	NA	414.28	Unknown	
1Q12	443.20	1/3/2012	NE	30.21	NA	NA	NA	412.99		
2Q12	443.20	4/2/2012	NE	30.38	NA	NA	NA	412.82		
3Q12	443.20	7/2/2012	NE	31.18	NA	NA	NA	412.02		*
4Q12	443.20	10/1/2012	NE	33.45	NA	NA	NA	409.75		*
1Q13	443.20	1/3/2013	NE	35.00	NA	NA	NA	408.20		*
P-6U										
2Q10	443.35	4/1/2010	NE	32.49	NA	NA	NA	410.86	362.85 - 360.85 (80.50 - 82.50)	*
3Q10	443.35	7/1/2010	NE	31.43	NA	NA	NA	411.92		*
4Q10	443.35	10/1/2010	NE	30.33	NA	NA	NA	413.02		*
1Q11	443.35	1/1/2011	NE	30.53	NA	NA	NA	412.82		*
2Q11	443.35	4/1/2011	NE	29.57	NA	NA	NA	413.78		*
3Q11	443.35	7/5/2011	NE	27.35	NA	NA	NA	416.00		*
	443.35	9/19/2011	NE	29.26	NA	NA	NA	414.09		*
4Q11	443.35	10/6/2011	NE	29.78	NA	NA	NA	413.57		*
1Q12	443.35	1/3/2012	NE	30.97	NA	NA	NA	412.38		*
2Q12	443.35	4/2/2012	NE	31.42	NA	NA	NA	411.93		*
3Q12	443.35	7/2/2012	NE	32.25	NA	NA	NA	411.10		*
4Q12	443.35	10/1/2012	NE	30.40	NA	NA	NA	412.95		*
1Q13	443.35	1/3/2013	NE	35.86	NA	NA	NA	407.49		*
P-7L										
4Q11	443.42	10/6/2011	NE	29.57	NA	NA	NA	413.85	Unknown	
1Q12	443.42	1/3/2012	NE	30.91	NA	NA	NA	412.51		
2Q12	443.42	4/2/2012	NE	31.28	NA	NA	NA	412.14		
3Q12	443.42	7/2/2012	NE	32.60	NA	NA	NA	410.82		*
4Q12	443.42	10/1/2012	NE	33.98	NA	NA	NA	409.44		*
1Q13	443.42	1/3/2013	NE	35.77	NA	NA	NA	407.65		*
P-7U										
2Q10	443.80	4/1/2010	NE	32.49	NA	NA	NA	411.31	382.72 - 380.72 (61.08 - 63.08)	*
3Q10	443.80	7/1/2010	NE	31.63	NA	NA	NA	412.17		*
4Q10	443.80	10/1/2010	NE	30.65	NA	NA	NA	413.15		*
1Q11	443.80	1/1/2011	NE	30.70	NA	NA	NA	413.10		*
2Q11	443.80	4/1/2011	NE	29.66	NA	NA	NA	414.14		*
3Q11	443.80	7/5/2011	NE	27.30	NA	NA	NA	416.50		*
	443.80	9/19/2011	NE	29.51	NA	NA	NA	414.29		*
4Q11	443.80	10/6/2011	NE	30.02	NA	NA	NA	413.78		*
1Q12	443.80	1/3/2012	NE	31.23	NA	NA	NA	412.57		*
2Q12	443.80	4/2/2012	NE	31.63	NA	NA	NA	412.17		*
3Q12	443.80	7/2/2012	NE	31.86	NA	NA	NA	411.94		*
4Q12	443.80	10/1/2012	NE	34.55	NA	NA	NA	409.25		*
1Q13	443.80	1/3/2013	NE	36.12	NA	NA	NA	407.68		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-8L										
4Q11	443.10	10/6/2011	NE	31.01	NA	NA	NA	412.09	Unknown	
1Q12	443.10	1/3/2012	NE	30.92	NA	NA	NA	412.18		
2Q12	443.10	4/2/2012	NE	31.22	NA	NA	NA	411.88		
3Q12	443.10	7/2/2012	NE	31.81	NA	NA	NA	411.29		*
4Q12	443.10	10/1/2012	NE	33.74	NA	NA	NA	409.36		*
1Q13	443.10	1/3/2013	NE	35.49	NA	NA	NA	407.61		*
P-8U										
2Q10	441.87	4/1/2010	NE	33.69	NA	NA	NA	408.18	Unknown	
3Q10	441.87	7/1/2010	NE	32.28	NA	NA	NA	409.59		
4Q10	441.87	10/1/2010	NE	31.14	NA	NA	NA	410.73		
1Q11	443.70	1/1/2011	NE	30.79	NA	NA	NA	412.91		
2Q11	443.70	4/1/2011	NE	30.50	NA	NA	NA	413.20		
3Q11	441.87	7/5/2011	NE	28.20	NA	NA	NA	413.67	381.77 - 379.77 (60.10 - 62.10)	*
	441.87	9/19/2011	NE	29.46	NA	NA	NA	412.41		*
4Q11	441.87	10/6/2011	NE	29.86	NA	NA	NA	412.01		*
1Q12	441.87	1/3/2012	NE	30.99	NA	NA	NA	410.88		*
2Q12	441.87	4/2/2012	NE	31.73	NA	NA	NA	410.14		*
4Q12	441.87	10/1/2012	NE	34.77	NA	NA	NA	407.10		*
1Q13	441.87	1/3/2013	NE	35.97	NA	NA	NA	405.90		*
P-9L										
4Q11	444.41	10/6/2011	NE	33.58	NA	NA	NA	410.83	Unknown	
1Q12	444.41	1/3/2012	NE	34.82	NA	NA	NA	409.59		
2Q12	444.41	4/2/2012	NE	35.95	NA	NA	NA	408.46		
3Q12	444.41	7/2/2012	NE	36.48	NA	NA	NA	407.93		*
4Q12	444.41	10/1/2012	NE	38.22	NA	NA	NA	406.19		*
1Q13	444.41	1/3/2013	NE	39.98	NA	NA	NA	404.43		*
P-9U										
2Q10	444.91	4/1/2010	NE	39.62	NA	NA	NA	405.29	344.32 - 342.32 (100.59 - 102.59)	*
3Q10	444.91	7/1/2010	NE	38.85	NA	NA	NA	406.06		*
4Q10	444.91	10/1/2010	NE	38.71	NA	NA	NA	406.20		*
1Q11	444.91	1/13/2011	NE	36.87	NA	NA	NA	408.04		*
2Q11	444.91	4/1/2011	NE	35.71	NA	NA	NA	409.20		*
3Q11	444.91	7/5/2011	NE	34.92	NA	NA	NA	409.99		*
	444.91	9/19/2011	NE	34.52	NA	NA	NA	410.39		*
4Q11	444.91	10/6/2011	NE	34.56	NA	NA	NA	410.35		*
1Q12	444.91	1/3/2012	NE	34.52	NA	NA	NA	410.39		*
2Q12	444.91	4/2/2012	NE	36.34	NA	NA	NA	408.57		*
3Q12	444.91	7/2/2012	NE	36.81	NA	NA	NA	408.10		*
4Q12	444.91	10/1/2012	NE	38.59	NA	NA	NA	406.32		*
1Q13	444.91	1/3/2013	NE	40.11	NA	NA	NA	404.80		*
P-11L										
2Q10	442.80	4/1/2010	NE	34.58	NA	NA	NA	408.22	332.59 - 330.59 (110.21 - 112.21)	*
3Q10	442.80	7/1/2010	NE	33.22	NA	NA	NA	409.58		*
4Q10	442.80	10/1/2010	NE	31.80	NA	NA	NA	411.00		*
1Q11	442.80	1/1/2011	NE	31.62	NA	NA	NA	411.18		*
2Q11	442.80	4/1/2011	NE	31.28	NA	NA	NA	411.52		*
3Q11	442.80	7/5/2011	NE	29.34	NA	NA	NA	413.46		*
	442.80	9/19/2011	NE	30.37	NA	NA	NA	412.43		*
4Q11	442.80	10/6/2011	NE	30.67	NA	NA	NA	412.13		*
1Q12	442.80	1/3/2012	NE	31.77	NA	NA	NA	411.03		*
2Q12	442.80	4/2/2012	NE	32.68	NA	NA	NA	410.12		*
3Q12	442.80	7/2/2012	NE	33.52	NA	NA	NA	409.28		*
4Q12	442.80	10/1/2012	NE	35.56	NA	NA	NA	407.24		*
1Q13	442.80	1/3/2013	NE	37.20	NA	NA	NA	405.60		*
P-11U										
2Q10	443.09	4/1/2010	NE	35.20	NA	NA	NA	407.89	343.17 - 341.17 (99.92 - 101.92)	*
3Q10	443.09	7/1/2010	NE	33.83	NA	NA	NA	409.26		*
4Q10	443.09	10/1/2010	NE	32.45	NA	NA	NA	410.64		*
1Q11	443.09	1/1/2011	NE	32.21	NA	NA	NA	410.88		*
2Q11	443.09	4/1/2011	NE	31.92	NA	NA	NA	411.17		*
3Q11	443.09	7/5/2011	NE	29.95	NA	NA	NA	413.14		*
	443.09	9/19/2011	NE	31.03	NA	NA	NA	412.06		*
4Q11	443.09	10/6/2011	NE	31.12	NA	NA	NA	411.97		*
1Q12	443.09	1/3/2012	NE	32.35	NA	NA	NA	410.74		*
2Q12	443.09	4/2/2012	NE	33.34	NA	NA	NA	409.75		*
3Q12	443.09	7/2/2012	NE	34.15	NA	NA	NA	408.94		*
4Q12	443.09	10/1/2012	NE	36.19	NA	NA	NA	406.90		*
1Q13	443.09	1/3/2013	NE	37.80	NA	NA	NA	405.29		*
P-14										
2Q10	442.65	4/1/2010	NE	30.20	NA	NA	NA	412.45	395.32 - 385.32 (47.33 - 57.33)	*
3Q10	442.65	7/1/2010	NE	29.56	NA	NA	NA	413.09		*
4Q10	442.65	10/1/2010	NE	27.94	NA	NA	NA	414.71		*
1Q11	442.65	1/1/2011	NE	28.57	NA	NA	NA	414.08		*
2Q11	442.65	4/1/2011	NE	27.38	NA	NA	NA	415.27		*
3Q11	442.65	7/5/2011	NE	25.57	NA	NA	NA	417.08		*
	442.65	9/19/2011	NE	27.77	NA	NA	NA	414.88		*
4Q11	442.65	10/6/2011	NE	28.20	NA	NA	NA	414.45		*
1Q12	442.65	1/3/2012	NE	28.98	NA	NA	NA	413.67		*
2Q12	442.65	4/2/2012	NE	29.42	NA	NA	NA	413.23		*
3Q12	442.65	7/2/2012	NE	30.55	NA	NA	NA	412.10		*
4Q12	442.65	10/1/2012	NE	32.39	NA	NA	NA	410.26		*
1Q13	442.65	1/3/2013	NE	34.01	NA	NA	NA	408.64		*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-15										
2Q10	443.35	4/1/2010	NE	32.80	NA	NA	NA	410.55	397.90 - 387.90 (45.45 - 55.45)	*
3Q10	443.35	7/1/2010	NE	31.68	NA	NA	NA	411.67		*
4Q10	443.35	10/1/2010	NE	30.43	NA	NA	NA	412.92		*
1Q11	443.35	1/1/2011	NE	30.55	NA	NA	NA	412.80		*
2Q11	443.35	4/1/2011	NE	29.80	NA	NA	NA	413.55		*
3Q11	443.35	7/5/2011	NE	27.75	NA	NA	NA	415.60		*
	443.35	9/19/2011	NE	29.45	NA	NA	NA	413.90		*
4Q11	443.35	10/6/2011	NE	29.93	NA	NA	NA	413.42		*
1Q12	443.35	1/3/2012	31.05	31.06	412.29	412.30	0.01	412.30		*
2Q12	443.35	4/2/2012	NE	31.55	NA	NA	NA	411.80		*
3Q12	443.35	7/2/2012	NE	32.40	NA	NA	NA	410.95		*
4Q12	443.35	10/1/2012	NE	34.35	NA	NA	NA	409.00		*
1Q13	443.35	1/3/2013	NE	35.81	NA	NA	NA	407.54		*
P-16										
2Q10	442.31	4/1/2010	NE	31.43	NA	NA	NA	410.88	396.57 - 386.57 (45.74 - 55.74)	*
3Q10	442.31	7/1/2010	NE	30.32	NA	NA	NA	411.99		*
4Q10	442.31	10/1/2010	NE	29.21	NA	NA	NA	413.10		*
1Q11	442.31	1/1/2011	NE	29.40	NA	NA	NA	412.91		*
2Q11	442.31	4/1/2011	NE	28.54	NA	NA	NA	413.77		*
3Q11	442.31	7/5/2011	NE	26.34	NA	NA	NA	415.97		*
	442.31	9/19/2011	NE	28.26	NA	NA	NA	414.05		*
4Q11	442.31	10/6/2011	NE	28.77	NA	NA	NA	413.54		*
1Q12	442.31	1/3/2012	NE	30.00	NA	NA	NA	412.31		*
3Q12	442.31	7/6/2012	NE	31.16	NA	NA	NA	411.15		*
4Q12	442.31	10/4/2012	NE	33.35	NA	NA	NA	408.96		*
1Q13	442.31	1/3/2013	NE	34.80	NA	NA	NA	407.51		*
P-43										
2Q10	444.07	4/1/2010	NE	36.02	NA	NA	NA	408.05	380.51 - 370.51 (63.56 - 73.56)	*
3Q10	444.07	7/1/2010	NE	34.68	NA	NA	NA	409.39		*
4Q10	444.07	10/1/2010	NE	33.29	NA	NA	NA	410.78		*
1Q11	444.07	1/1/2011	NE	33.09	NA	NA	NA	410.98		*
2Q11	444.07	4/1/2011	NE	32.75	NA	NA	NA	411.32		*
3Q11	444.07	7/5/2011	NE	30.78	NA	NA	NA	413.29		*
	444.07	9/19/2011	NE	31.87	NA	NA	NA	412.20		*
4Q11	444.07	10/6/2011	NE	32.18	NA	NA	NA	411.89		*
1Q12	444.07	1/3/2012	NE	33.24	NA	NA	NA	410.83		*
2Q12	444.07	4/2/2012	NE	34.17	NA	NA	NA	409.90		*
3Q12	444.07	7/2/2012	NE	34.95	NA	NA	NA	409.12		*
4Q12	444.07	10/1/2012	NE	36.80	NA	NA	NA	407.27		*
1Q13	444.07	1/3/2013	NE	38.21	NA	NA	NA	405.86		*
P-53										
2Q10	446.23	4/1/2010	NE	42.17	NA	NA	NA	404.06	407.73 - 382.73 (38.50 - 63.50)	
3Q10	446.23	7/1/2010	NE	40.83	NA	NA	NA	405.40		
4Q10	446.23	10/1/2010	NE	39.33	NA	NA	NA	406.90		
1Q11	446.23	1/13/2011	NE	39.46	NA	NA	NA	406.77		
2Q11	446.23	4/1/2011	NE	39.99	NA	NA	NA	406.24		
3Q11	446.23	7/5/2011	NE	38.28	NA	NA	NA	407.95		*
	446.23	9/19/2011	NE	37.39	NA	NA	NA	408.84		*
4Q11	446.23	10/5/2011	NE	37.58	NA	NA	NA	408.65		*
1Q12	446.23	1/3/2012	NE	38.73	NA	NA	NA	407.50		
2Q12	446.23	4/2/2012	NE	NM	NA	NA	NA	NA		
3Q12	446.23	7/2/2012	NE	40.46	NA	NA	NA	405.77		
4Q12	446.23	10/1/2012	NE	41.88	NA	NA	NA	404.35		
1Q13	446.23	1/2/2013	NE	43.06	NA	NA	NA	403.17		
P-54										
2Q10	442.18	4/1/2010	NE	38.53	NA	NA	NA	403.65	404.18 - 379.18 (38.00 - 63.00)	
3Q10	442.18	7/1/2010	NE	37.33	NA	NA	NA	404.85		*
4Q10	442.18	11/12/2010	NE	36.43	NA	NA	NA	405.75		*
1Q11	442.18	1/13/2011	NE	37.24	NA	NA	NA	404.94		*
2Q11	442.18	4/25/2011	NE	38.00	NA	NA	NA	404.18		
3Q11	442.18	7/5/2011	NE	35.38	NA	NA	NA	406.80		*
	442.18	9/19/2011	NE	34.78	NA	NA	NA	407.40		*
4Q11	442.18	10/5/2011	NE	35.01	NA	NA	NA	407.17		*
1Q12	442.18	1/3/2012	NE	37.17	NA	NA	NA	405.01		*
2Q12	442.18	4/2/2012	NE	38.48	NA	NA	NA	403.70		
3Q12	442.18	7/2/2012	NE	38.73	NA	NA	NA	403.45		
4Q12	442.18	10/1/2012	NE	40.44	NA	NA	NA	401.74		
1Q13	442.18	1/3/2013	NE	41.62	NA	NA	NA	400.56		
P-55										
2Q10	445.95	4/1/2010	NE	42.69	NA	NA	NA	403.26	406.13 - 381.13 (39.82 - 64.82)	
3Q10	445.95	7/1/2010	NE	41.81	NA	NA	NA	404.14		
4Q10	445.95	11/12/2010	NE	40.50	NA	NA	NA	405.45		
1Q11	445.95	1/13/2011	NE	40.56	NA	NA	NA	405.39		
2Q11	445.95	4/25/2011	41.52	41.54	404.41	404.43	0.02	404.43		
3Q11	445.95	7/5/2011	39.41	39.42	406.53	406.54	0.01	406.54		*
	445.95	9/19/2011	NE	38.57	NA	NA	NA	407.38		*
4Q11	445.95	10/6/2011	NE	38.61	NA	NA	NA	407.34		*
1Q12	445.95	1/4/2012	NE	40.71	NA	NA	NA	405.24		
2Q12	445.95	4/2/2012	NE	42.04	NA	NA	NA	403.91		
3Q12	445.95	7/2/2012	NE	42.33	NA	NA	NA	403.62		
4Q12	445.95	10/1/2012	NE	44.17	NA	NA	NA	401.78		
1Q13	443.78	1/8/2013	NE	45.24	NA	NA	NA	400.71	403.35 - 393.35 (40.43 - 50.43)	Replaced P-55 during 4Q12

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-56										
2Q10	446.02	4/1/2010	NE	42.71	NA	NA	NA	403.31	405.20 - 380.20 (40.82 - 65.82)	
3Q10	446.02	7/1/2010	NE	41.99	NA	NA	NA	404.03		
4Q10	446.02	11/11/2010	NE	40.94	NA	NA	NA	405.08		
1Q11	446.02	1/13/2011	NE	41.03	NA	NA	NA	404.99		
2Q11	446.02	4/25/2011	NE	42.16	NA	NA	NA	403.86		
3Q11	446.02	7/5/2011	NE	39.63	NA	NA	NA	406.39		*
	446.02	9/19/2011	NE	38.88	NA	NA	NA	407.14		*
4Q11	446.02	10/6/2011	NE	39.10	NA	NA	NA	406.92		*
1Q12	446.02	1/4/2012	NE	41.51	NA	NA	NA	404.51		
2Q12	446.02	4/3/2012	NE	42.88	NA	NA	NA	403.14		
3Q12	446.02	7/5/2012	NE	43.01	NA	NA	NA	403.01		
4Q12	446.02	10/2/2012	NE	44.76	NA	NA	NA	401.26		
1Q13	446.02	1/4/2013	NE	45.65	NA	NA	NA	400.37		
P-57										
2Q10	446.53	4/1/2010	NE	42.73	NA	NA	NA	403.80	406.07 - 381.07 (40.46 - 65.46)	
3Q10	446.53	7/1/2010	NE	41.60	NA	NA	NA	404.93		
4Q10	446.53	11/12/2010	NE	40.64	NA	NA	NA	405.89		
1Q11	446.53	1/13/2011	NE	41.04	NA	NA	NA	405.49		
2Q11	446.53	4/25/2011	NE	41.88	NA	NA	NA	404.65		
3Q11	446.53	7/5/2011	NE	39.48	NA	NA	NA	407.05		*
	446.53	9/19/2011	NE	39.92	NA	NA	NA	406.61		*
4Q11	446.53	10/6/2011	NE	39.20	NA	NA	NA	407.33		*
1Q12	446.53	2/13/2012	NE	42.13	NA	NA	NA	404.40		
2Q12	446.53	4/4/2012	NE	42.61	NA	NA	NA	403.92		
3Q12	446.53	7/5/2012	NE	43.00	NA	NA	NA	403.53		
4Q12	446.53	10/1/2012	NE	44.78	NA	NA	NA	401.75		
1Q13	446.53	1/4/2013	NE	45.82	NA	NA	NA	400.71		
P-58										
2Q10	444.92	4/1/2010	NE	40.76	NA	NA	NA	404.16	404.70 - 379.70 (40.21 - 65.21)	Oily film observed on probe but no product response observed from probe or product paste.
3Q10	444.92	7/1/2010	39.42	39.46	405.46	405.50	0.04	405.49		*Product confirmed on interface probe.
4Q10	444.92	11/12/2010	NE	38.51	NA	NA	NA	406.41		*
1Q11	444.92	1/13/2011	NE	39.10	NA	NA	NA	405.82		*No tone; produt paste turned
2Q11	444.92	4/25/2011	NE	39.78	NA	NA	NA	405.14		*No tone; produt paste turned
3Q11	444.92	7/5/2011	NE	37.42	NA	NA	NA	407.50		*
	444.92	9/19/2011	NE	37.02	NA	NA	NA	407.90		*
4Q11	444.92	10/6/2011	NE	37.31	NA	NA	NA	407.61		*
1Q12	444.92	1/4/2012	NE	39.41	NA	NA	NA	405.51		*
2Q12	444.92	4/3/2012	NE	40.81	NA	NA	NA	404.11		
3Q12	444.92	7/5/2012	NE	41.04	NA	NA	NA	403.88		
4Q12	444.92	10/2/2012	NE	42.90	NA	NA	NA	402.02		
1Q13	444.92	1/4/2013	NE	43.80	NA	NA	NA	401.12		
P-59										
2Q10	446.78	4/1/2010	NE	43.59	NA	NA	NA	403.19	398.87 - 373.87 (47.91 - 72.91)	*Oily film observed on probe but no product response observed from probe or product paste.
3Q10	446.78	7/1/2010	43.21	43.23	403.55	403.57	0.02	403.57		*Product confirmed on interface probe.
4Q10	446.78	11/12/2010	NE	42.13	NA	NA	NA	404.65		*
1Q11	446.78	1/13/2011	NE	42.16	NA	NA	NA	404.62		*No tone; product paste turned
2Q11	446.78	4/25/2011	43.25	43.26	403.52	403.53	0.01	403.53		*No tone; product paste turned
3Q11	446.78	7/5/2011	NE	41.44	NA	NA	NA	405.34		*
	446.78	9/19/2011	NE	40.56	NA	NA	NA	406.22		*
4Q11	446.78	10/6/2011	NE	40.77	NA	NA	NA	406.01		*
1Q12	446.78	1/4/2012	NE	42.61	NA	NA	NA	404.17		*
2Q12	446.78	4/4/2012	NE	43.82	NA	NA	NA	402.96		*
3Q12	446.78	7/5/2012	NE	44.00	NA	NA	NA	402.78		*
4Q12	446.78	10/2/2012	NE	45.83	NA	NA	NA	400.95		*
1Q13	446.78	1/4/2013	NE	46.54	NA	NA	NA	400.24		*
P-60										
2Q10	446.57	4/1/2010	43.45	43.73	402.84	403.12	0.28	403.07	403.12 - 383.12 (43.45 - 63.45)	Product confirmed on interface probe.
3Q10	446.57	7/1/2010	42.61	43.18	403.39	403.96	0.57	403.85		*Product confirmed on interface probe.
4Q10	446.57	11/11/2010	41.40	41.44	405.13	405.17	0.04	405.16		*
1Q11	446.57	1/14/2011	41.68	41.72	404.85	404.89	0.04	404.88		*
2Q11	446.57	4/25/2011	42.72	43.18	403.39	403.85	0.46	403.76		*
3Q11	446.57	7/5/2011	40.41	40.77	405.80	406.16	0.36	406.09		*
	446.57	9/19/2011	39.54	39.89	406.68	407.03	0.35	406.96		*
4Q11	446.57	10/6/2011	39.72	40.06	406.51	406.85	0.34	406.79		*
1Q12	446.57	1/4/2012	NE	41.98	NA	NA	NA	404.59		*
2Q12	446.57	4/3/2012	43.46	43.48	403.09	403.11	0.02	403.11		
3Q12	446.57	7/5/2012	43.51	43.55	403.02	403.06	0.04	403.05		
4Q12	446.57	10/2/2012	45.33	45.44	401.13	401.24	0.11	401.22		
1Q13	446.57	1/4/2013	NE	46.19	NA	NA	NA	400.38		
P-60-11										
4Q10	443.39	11/11/2010	NE	40.91	NA	NA	NA	402.48	Unknown	
1Q11	443.39	1/14/2011	NE	41.14	NA	NA	NA	402.25		
2Q11	443.39	4/25/2011	NE	42.22	NA	NA	NA	401.17		
3Q11	446.18	7/5/2011	NE	39.97	NA	NA	NA	406.21	413.03 - 383.03 (33.15 - 63.15)	
	446.18	9/19/2011	NE	39.07	NA	NA	NA	407.11		
4Q11	446.18	10/6/2011	NE	39.25	NA	NA	NA	406.93		
1Q12	446.18	1/4/2012	NE	41.22	NA	NA	NA	404.96		
2Q12	446.18	4/3/2012	NE	42.65	NA	NA	NA	403.53		
3Q12	446.18	7/5/2012	NE	42.64	NA	NA	NA	403.54		
4Q12	446.18	10/2/2012	44.32	44.41	401.77	401.86	0.09	401.84		
1Q13	446.18	1/4/2013	NE	45.06	NA	NA	NA	401.12		

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-60-12										
4Q10	443.31	11/11/2010	NE	38.19	NA	NA	NA	405.12	383.31 - 373.31 (60.00 - 70.00)	*
1Q11	443.31	1/14/2011	NE	38.51	NA	NA	NA	404.80		*
2Q11	443.31	4/25/2011	NE	39.63	NA	NA	NA	403.68		*
3Q11	443.31	7/5/2011	NE	37.27	NA	NA	NA	406.04		*
	443.31	9/19/2011	NE	36.41	NA	NA	NA	406.90		*
4Q11	443.31	10/6/2011	NE	36.53	NA	NA	NA	406.78		*
1Q12	443.31	1/4/2012	NE	38.76	NA	NA	NA	404.55		*
2Q12	443.31	4/3/2012	NE	40.25	NA	NA	NA	403.06		*
3Q12	443.31	7/5/2012	NE	40.23	NA	NA	NA	403.08		*
4Q12	443.31	10/2/2012	NE	44.15	NA	NA	NA	399.16		*
1Q13	443.31	1/4/2013	NE	42.97	NA	NA	NA	400.34		*
P-60-12S	***(PERCHED WELL)***									
4Q10	443.33	11/11/2010	NE	23.36	NA	NA	NA	419.97	429.49 - 419.49 (13.84 - 23.84)	
1Q11	443.33	1/14/2011	NE	NE	NA	NA	NA	NA		
2Q11	443.33	4/25/2011	NE	21.84	NA	NA	NA	421.49		
3Q11	443.33	7/5/2011	21.10	21.11	422.22	422.23	0.01	422.23		
4Q11	443.33	10/6/2011	NE	23.36	NA	NA	NA	419.97		
1Q12	443.33	1/4/2012	NE	22.81	NA	NA	NA	420.52		
2Q12	443.33	4/3/2012	NE	20.21	NA	NA	NA	423.12		
3Q12	443.33	7/5/2012	NE	19.48	NA	NA	NA	423.85		
4Q12	443.33	10/2/2012	NE	19.04	NA	NA	NA	424.29		
1Q13	443.33	1/4/2013	NE	19.35	NA	NA	NA	423.98		
P-60-13										
4Q10	442.43	11/11/2010	37.50	37.87	404.56	404.93	0.37	404.86	402.43 - 382.43 (40.00 - 60.00)	*
1Q11	442.43	1/14/2011	37.73	37.74	404.69	404.70	0.01	404.70		*
2Q11	442.43	4/25/2011	38.80	39.10	403.33	403.63	0.30	403.57		*
3Q11	442.43	7/5/2011	36.85	36.99	405.44	405.58	0.14	405.55		*
	442.43	9/19/2011	NE	35.72	NA	NA	NA	406.71		*
4Q11	442.43	10/6/2011	NE	35.86	NA	NA	NA	406.57		*
1Q12	442.43	1/4/2012	NE	37.82	NA	NA	NA	404.61		*
2Q12	442.43	4/3/2012	NE	39.21	NA	NA	NA	403.22		*
3Q12	442.43	7/5/2012	NE	39.37	NA	NA	NA	403.06		*
4Q12	442.43	10/2/2012	NE	40.61	NA	NA	NA	401.82		
1Q13	442.43	1/4/2013	NE	41.55	NA	NA	NA	400.88		
P-60-13S	***(PERCHED WELL)***									
4Q10	442.39	11/11/2010	NE	13.36	NA	NA	NA	429.03	432.39 - 422.39 (10.00 - 20.00)	
1Q11	442.39	1/14/2011	NE	NE	NA	NA	NA	NA		
2Q11	442.39	4/25/2011	NE	17.45	NA	NA	NA	424.94		
3Q11	442.39	7/5/2011	NE	17.08	NA	NA	NA	425.31		
4Q11	442.39	10/6/2011	NE	18.44	NA	NA	NA	423.95		
1Q12	442.39	1/4/2012	NE	17.66	NA	NA	NA	424.73		
2Q12	442.39	4/3/2012	NE	17.58	NA	NA	NA	424.81		
3Q12	442.39	7/5/2012	NE	17.87	NA	NA	NA	424.52		
4Q12	442.39	10/2/2012	NE	17.97	NA	NA	NA	424.42		
1Q13	442.39	1/4/2013	NE	NE	NA	NA	NA	NA		Well dry
P-60-S										
3Q11	446.98	7/5/2011	NE	40.81	NA	NA	NA	406.17	410.50 - 395.50 (36.48 - 51.48)	
		9/19/2011	39.40	39.61	407.37	407.58	0.21	407.54		
1Q12	446.98	1/4/2012	41.39	41.90	405.08	405.59	0.51	405.49		
2Q12	446.98	4/3/2012	42.85	43.28	403.70	404.13	0.43	404.04		
3Q12	446.98	7/5/2012	43.12	43.26	403.72	403.86	0.14	403.83		
4Q12	446.98	10/4/2012	43.94	45.84	401.14	403.04	1.90	402.66		
1Q13	446.98	1/4/2013	45.34	45.95	401.03	401.64	0.61	401.52		
P-61										
2Q10	444.27	4/1/2010	41.97	42.09	402.18	402.30	0.12	402.27	398.59 - 373.59 (45.68 - 70.68)	*Product confirmed on interface probe.
3Q10	444.27	7/1/2010	41.04	41.18	403.09	403.23	0.14	403.20		*Product confirmed on interface probe.
4Q10	444.27	11/11/2010	39.91	40.03	404.24	404.36	0.12	404.33		*
1Q11	444.27	1/13/2011	38.81	38.94	405.33	405.46	0.13	405.43		*
2Q11	444.27	4/25/2011	NE	40.93	NA	NA	NA	403.34		*
3Q11	444.27	7/5/2011	37.58	37.59	406.68	406.69	0.01	406.69		*
	444.27	9/19/2011	NE	37.36	NA	NA	NA	406.91		*
4Q11	444.27	10/6/2011	NE	37.63	NA	NA	NA	406.64		*
1Q12	444.27	1/3/2012	NE	40.34	NA	NA	NA	403.93		*
2Q12	444.27	4/3/2012	NE	41.50	NA	NA	NA	402.77		*
3Q12	444.27	7/3/2012	NE	41.53	NA	NA	NA	402.74		*
4Q12	444.27	10/2/2012	NE	43.36	NA	NA	NA	400.91		*
1Q13	444.27	1/4/2013	43.82	45.95	398.32	400.45	2.13	400.02		*
P-62										
2Q10	442.32	4/1/2010	39.56	40.90	401.42	402.76	1.34	402.50	400.85 - 375.85 (41.47 - 66.47)	*Product confirmed on interface probe.
3Q10	442.32	7/1/2010	38.51	39.96	402.36	403.81	1.45	403.52		*Product confirmed on interface probe.
4Q10	442.32	11/11/2010	37.14	38.57	403.75	405.18	1.43	404.90		*
1Q11	442.32	1/13/2011	36.39	37.81	404.51	405.93	1.42	405.65		*
2Q11	442.32	4/25/2011	NE	38.18	NA	NA	NA	404.14		*
3Q11	442.32	7/5/2011	35.62	35.63	406.69	406.70	0.01	406.70		*
	442.32	9/19/2011	35.39	35.41	406.91	406.93	0.02	406.93		*
4Q11	442.32	10/6/2011	NE	35.64	NA	NA	NA	406.68		*
1Q12	442.32	1/3/2012	37.68	37.71	404.61	404.64	0.03	404.64		*
2Q12	442.32	4/3/2012	NE	30.94	NA	NA	NA	411.38		*Result is suspect
3Q12	442.32	7/3/2012	39.13	39.15	403.17	403.19	0.02	403.19		*
4Q12	442.32	10/1/2012	40.61	42.35	399.97	401.71	1.74	401.37		*
1Q13	442.32	1/8/2013	NE	30.39	NA	NA	NA	411.93		*Result is suspect

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-63										
2Q10	445.75	4/1/2010	43.53	43.72	402.03	402.22	0.19	402.18	398.46 - 373.46 (47.29 - 72.29)	*Product confirmed on interface probe.
3Q10	445.75	7/1/2010	42.32	42.52	403.23	403.43	0.20	403.39		*Product confirmed on interface probe.
4Q10	445.75	10/1/2010	40.58	40.79	404.96	405.17	0.21	405.13		*Product confirmed on interface probe.
1Q11	445.75	1/13/2011	39.48	39.68	406.07	406.27	0.20	406.23		*
2Q11	445.75	4/1/2011	NE	41.11	NA	NA	NA	404.64		*
3Q11	445.75	7/5/2011	NE	38.56	NA	NA	NA	407.19		*
	445.75	9/19/2011	NE	39.12	NA	NA	NA	406.63		*
4Q11	445.75	10/6/2011	NE	39.20	NA	NA	NA	406.55		*
1Q12	445.75	1/3/2012	NE	40.65	NA	NA	NA	405.10		*
2Q12	445.75	4/3/2012	NE	42.09	NA	NA	NA	403.66		*
3Q12	445.75	7/3/2012	NE	42.94	NA	NA	NA	402.81		*
4Q12	445.75	10/1/2012	NE	44.55	NA	NA	NA	401.20		*
1Q13	445.75	1/4/2013	NE	46.03	NA	NA	NA	399.72		*
P-64										
2Q10	446.52	4/1/2010	44.61	44.70	401.82	401.91	0.09	401.89	399.29 - 374.29 (47.23 - 72.23)	*Product confirmed on interface probe.
3Q10	446.52	7/1/2010	43.46	43.61	402.91	403.06	0.15	403.03		*Product confirmed on interface probe.
4Q10	446.52	10/1/2010	41.45	41.56	404.96	405.07	0.11	405.05		*Product confirmed on interface probe.
1Q11	446.52	1/13/2011	40.14	40.46	406.06	406.38	0.32	406.32		*
2Q11	446.52	4/1/2011	41.77	41.86	404.66	404.75	0.09	404.73		*
3Q11	446.52	7/5/2011	39.25	39.42	407.10	407.27	0.17	407.24		*
	446.52	9/19/2011	40.10	41.10	405.42	406.42	1.00	406.22		*
4Q11	446.52	10/6/2011	40.35	40.53	405.99	406.17	0.18	406.13		*
1Q12	446.52	1/3/2012	41.68	41.75	404.77	404.84	0.07	404.83		*
2Q12	446.52	4/3/2012	43.18	43.19	403.33	403.34	0.01	403.34		*
3Q12	446.52	7/3/2012	44.40	44.41	402.11	402.12	0.01	402.12		*
4Q12	446.52	10/1/2012	45.62	45.68	400.84	400.90	0.06	400.89		*
1Q13	446.52	1/4/2013	NE	47.84	NA	NA	NA	398.68		
P-65										
2Q10	444.53	4/1/2010	41.33	41.34	403.19	403.20	0.01	403.20	396.91 - 371.91 (47.62 - 72.62)	*Product confirmed on interface probe.
3Q10	444.53	7/1/2010	44.34	44.35	400.18	400.19	0.01	400.19		*Product confirmed on interface probe.
4Q10	444.53	10/1/2010	38.61	38.63	405.90	405.92	0.02	405.92		*Product confirmed on interface probe.
1Q11	444.53	1/13/2011	37.73	37.74	406.79	406.80	0.01	406.80		*
2Q11	444.53	4/1/2011	NE	39.20	NA	NA	NA	405.33		*
3Q11	444.53	7/5/2011	NE	36.87	NA	NA	NA	407.66		*
	444.53	9/19/2011	NE	37.54	NA	NA	NA	406.99		*
4Q11	444.53	10/6/2011	NE	37.67	NA	NA	NA	406.86		*
1Q12	444.53	1/3/2012	NE	39.15	NA	NA	NA	405.38		*
2Q12	444.53	4/3/2012	NE	40.76	NA	NA	NA	403.77		*
3Q12	444.53	7/3/2012	NE	41.76	NA	NA	NA	402.77		*
4Q12	444.53	10/1/2012	NE	43.00	NA	NA	NA	401.53		*
1Q13	444.53	1/4/2013	NE	44.61	NA	NA	NA	399.92		*
P-66										
2Q10	436.70	4/1/2010	NE	32.30	NA	NA	NA	404.40	401.98 - 376.98 (34.72 - 59.72)	*
3Q10	436.70	7/1/2010	30.81	30.83	405.87	405.89	0.02	405.89		*Product confirmed on interface probe.
4Q10	436.70	11/12/2010	NE	30.02	NA	NA	NA	406.68		*
1Q11	436.70	1/13/2011	NE	30.70	NA	NA	NA	406.00		*
2Q11	436.70	4/25/2011	NE	31.26	NA	NA	NA	405.44		*
3Q11	436.70	7/5/2011	NE	28.87	NA	NA	NA	407.83		*
	436.70	9/19/2011	NE	28.64	NA	NA	NA	408.06		*
4Q11	436.70	10/5/2011	NE	28.92	NA	NA	NA	407.78		*
1Q12	436.70	1/3/2012	NM	NM	NA	NA	NA	NA		Restricted Area
2Q12	436.70	4/2/2012	NM	NM	NA	NA	NA	NA		Restricted Area
3Q12	436.70	7/5/2012	32.60	32.61	404.09	404.10	0.01	404.10		*
4Q12	436.70	10/2/2012	NE	34.55	NA	NA	NA	402.15		*
1Q13	436.70	1/2/2013	NE	35.40	NA	NA	NA	401.30		
P-67										
2Q10	444.13	4/1/2010	38.78	38.80	405.33	405.35	0.02	405.35	402.16 - 377.16 (41.98 - 66.98)	*Product confirmed on interface probe.
3Q10	444.13	7/1/2010	37.27	37.46	406.67	406.86	0.19	406.82		*Product confirmed on interface probe.
4Q10	444.13	10/1/2010	36.27	36.31	407.82	407.86	0.04	407.85		*Product confirmed on interface probe.
1Q11	444.13	1/13/2011	36.75	36.78	407.35	407.38	0.03	407.37		*
2Q11	444.13	4/1/2011	NE	37.24	NA	NA	NA	406.89		*
3Q11	444.13	7/5/2011	NE	35.17	NA	NA	NA	408.96		*
	444.13	9/19/2011	NE	35.16	NA	NA	NA	408.97		*
4Q11	444.13	10/5/2011	NE	35.38	NA	NA	NA	408.75		*
1Q12	444.13	1/4/2012	NE	37.08	NA	NA	NA	407.05		*
2Q12	444.13	4/3/2012	NE	38.50	NA	NA	NA	405.63		*
3Q12	444.13	7/2/2012	NE	38.90	NA	NA	NA	405.23		*
4Q12	444.13	10/2/2012	NE	40.81	NA	NA	NA	403.32		*
1Q13	444.13	1/2/2013	NE	41.69	NA	NA	NA	402.44		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-68										
2Q10	445.07	4/1/2010	40.94	48.15	396.92	404.13	7.21	402.69	399.81 - 374.81 (45.26 - 70.26)	*Product confirmed on interface probe.
3Q10	445.07	7/1/2010	40.50	44.65	400.42	404.57	4.15	403.74		*Product confirmed on interface probe.
4Q10	445.07	11/12/2010	39.32	43.42	401.65	405.75	4.10	404.93		*
1Q11	445.07	1/13/2011	39.15	43.18	401.89	405.92	4.03	405.12		*
2Q11	445.07	4/25/2011	41.42	41.51	403.56	403.65	0.09	403.63		*
3Q11	445.07	7/5/2011	39.06	39.13	405.94	406.01	0.07	406.00		*
	445.07	9/19/2011	39.01	39.03	406.04	406.06	0.02	406.06		*
4Q11	445.07	10/6/2011	38.53	38.58	406.49	406.54	0.05	406.53		*
1Q12	445.07	1/4/2012	40.53	40.61	404.46	404.54	0.08	404.52		*
2Q12	445.07	4/3/2012	NE	42.08	NA	NA	NA	402.99		*
3Q12	445.07	7/5/2012	42.08	42.12	402.95	402.99	0.04	402.98		*
4Q12	445.07	10/2/2012	43.85	44.04	401.03	401.22	0.19	401.18		*
1Q13	445.07	1/7/2013	44.55	44.95	400.12	400.52	0.40	400.44		*
P-69										
2Q10	443.18	4/1/2010	40.39	40.42	402.76	402.79	0.03	402.79	402.36 - 377.36 (40.82 - 65.82)	*Product confirmed on interface probe.
3Q10	443.18	7/1/2010	NE	40.14	NA	NA	NA	403.04		*
4Q10	443.18	11/11/2010	38.99	39.02	404.16	404.19	0.03	404.19		*
1Q11	443.18	1/13/2011	38.62	38.63	404.55	404.56	0.01	404.56		*
2Q11	443.18	4/25/2011	NE	39.98	NA	NA	NA	403.20		*
3Q11	443.18	7/5/2011	NE	37.41	NA	NA	NA	405.77		*
	443.18	9/19/2011	NE	36.62	NA	NA	NA	406.56		*
4Q11	443.18	10/6/2011	NE	36.77	NA	NA	NA	406.41		*
1Q12	443.18	1/4/2012	NE	39.18	NA	NA	NA	404.00		*
2Q12	443.18	4/3/2012	NE	40.59	NA	NA	NA	402.59		*
3Q12	443.18	7/5/2012	NE	40.61	NA	NA	NA	402.57		*
4Q12	443.18	10/2/2012	NE	42.46	NA	NA	NA	400.72		
1Q13	443.18	1/4/2013	NE	43.85	NA	NA	NA	399.33		
P-70										
2Q10	442.83	4/1/2010	40.21	40.67	402.16	402.62	0.46	402.53	398.16 - 373.16 (44.67 - 69.67)	*Product confirmed on interface probe.
3Q10	442.83	7/1/2010	39.42	39.86	402.97	403.41	0.44	403.32		*Product confirmed on interface probe.
4Q10	442.83	11/11/2010	38.20	38.69	404.14	404.63	0.49	404.53		*
1Q11	442.83	1/13/2011	37.48	37.90	404.93	405.35	0.42	405.27		*
2Q11	442.83	4/25/2011	39.20	39.22	403.61	403.63	0.02	403.62		*
3Q11	442.83	7/5/2011	36.42	36.43	406.40	406.41	0.01	406.41		*
	442.83	9/19/2011	NE	35.98	NA	NA	NA	406.85		*
4Q11	442.83	10/6/2011	NE	36.25	NA	NA	NA	406.58		*
1Q12	442.83	1/3/2012	NE	38.62	NA	NA	NA	404.21		*
2Q12	442.83	4/3/2012	NE	39.80	NA	NA	NA	403.03		*
3Q12	442.83	7/3/2012	NE	39.83	NA	NA	NA	403.00		*
4Q12	442.83	10/1/2012	NE	41.67	NA	NA	NA	401.16		*
1Q13	442.83	1/4/2013	NE	42.72	NA	NA	NA	400.11		*
P-71										
2Q10	444.83	4/1/2010	NE	41.31	NA	NA	NA	403.52	402.22 - 377.22 (42.61 - 67.61)	*
3Q10	444.83	7/1/2010	NE	40.20	NA	NA	NA	404.63		*
4Q10	444.83	11/11/2010	NE	38.92	NA	NA	NA	405.91		*
1Q11	444.83	1/13/2011	NE	38.32	NA	NA	NA	406.51		*
2Q11	444.83	4/25/2011	NE	39.52	NA	NA	NA	405.31		*
3Q11	444.83	7/5/2011	NE	37.91	NA	NA	NA	406.92		*
	444.83	9/19/2011	NE	37.71	NA	NA	NA	407.12		*
4Q11	444.83	10/6/2011	NE	47.31	NA	NA	NA	397.52		
1Q12	444.83	1/3/2012	NE	38.91	NA	NA	NA	405.92		*
2Q12	444.83	4/3/2012	NE	40.34	NA	NA	NA	404.49		*
3Q12	444.83	7/3/2012	NE	40.90	NA	NA	NA	403.93		*
4Q12	444.83	10/2/2012	42.69	42.75	402.08	402.14	0.06	402.13		
1Q13	444.83	1/4/2013	NE	43.83	NA	NA	NA	401.00		
P-72										
2Q10	444.43	4/1/2010	40.36	40.39	404.04	404.07	0.03	404.06	398.66 - 373.66 (45.77 - 70.77)	*Product confirmed on interface probe.
3Q10	444.43	7/1/2010	NM	NM	NA	NA	NA	NA		Tank yard flooded, unable to access.
4Q10	444.43	11/11/2010	38.01	38.06	406.37	406.42	0.05	406.41		*
1Q11	444.43	1/13/2011	37.65	37.66	406.77	406.78	0.01	406.78		*
2Q11	444.43	4/25/2011	38.78	38.80	405.63	405.65	0.02	405.65		*
3Q11	444.43	7/5/2011	37.02	37.03	407.40	407.41	0.01	407.41		*
	444.43	9/19/2011	NE	36.60	NA	NA	NA	407.83		*
4Q11	444.43	10/6/2011	NE	36.82	NA	NA	NA	407.61		*
1Q12	444.43	1/3/2012	NE	38.43	NA	NA	NA	406.00		*
2Q12	444.43	4/3/2012	NE	39.58	NA	NA	NA	404.85		*
3Q12	444.43	7/3/2012	NE	40.30	NA	NA	NA	404.13		*
4Q12	444.43	10/1/2012	NE	41.88	NA	NA	NA	402.55		*
1Q13	444.43	1/4/2013	NE	43.27	NA	NA	NA	401.16		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-73										
2Q10	443.76	4/1/2010	NE	40.15	NA	NA	NA	403.61	402.17 - 377.17 (41.60 - 66.60)	*
3Q10	443.76	7/1/2010	40.24	41.26	402.50	403.52	1.02	403.32		*Product confirmed on interface probe.
4Q10	443.76	11/11/2010	NE	38.10	NA	NA	NA	405.66		*
1Q11	443.76	1/13/2011	NE	38.10	NA	NA	NA	405.66		*
2Q11	443.76	4/25/2011	NE	39.13	NA	NA	NA	404.63		*
3Q11	443.76	7/5/2011	NE	36.88	NA	NA	NA	406.88		*
	443.76	9/19/2011	NE	36.38	NA	NA	NA	407.38		*
4Q11	443.76	10/6/2011	NE	36.68	NA	NA	NA	407.08		*
1Q12	443.76	1/4/2012	NE	38.68	NA	NA	NA	405.08		*
2Q12	443.76	4/3/2012	NE	40.03	NA	NA	NA	403.73		*
3Q12	443.76	7/5/2012	NE	40.28	NA	NA	NA	403.48		*
4Q12	443.76	10/2/2012	NE	42.02	NA	NA	NA	401.74		
1Q13	443.76	1/4/2013	NE	43.04	NA	NA	NA	400.72		
P-74										
2Q10	442.63	4/1/2010	NE	39.07	NA	NA	NA	403.56	398.20 - 373.20 (44.43 - 69.43)	*
3Q10	442.63	7/1/2010	NE	38.88	NA	NA	NA	403.75		*
4Q10	442.63	11/12/2010	NE	38.29	NA	NA	NA	404.34		*
1Q11	442.63	1/13/2011	NE	37.94	NA	NA	NA	404.69		*
2Q11	442.63	4/25/2011	NE	39.18	NA	NA	NA	403.45		*
3Q11	442.63	7/5/2011	NE	36.51	NA	NA	NA	406.12		*
	442.63	9/19/2011	NE	35.86	NA	NA	NA	406.77		*
4Q11	442.63	10/6/2011	NE	36.26	NA	NA	NA	406.37		*
1Q12	442.63	1/4/2012	NE	38.56	NA	NA	NA	404.07		*
2Q12	442.63	4/3/2012	NE	39.94	NA	NA	NA	402.69		*
3Q12	442.63	7/5/2012	NE	40.00	NA	NA	NA	402.63		*
4Q12	442.63	10/2/2012	NE	41.78	NA	NA	NA	400.85		*
1Q13	442.63	1/4/2013	NE	42.55	NA	NA	NA	400.08		*
P-75										
2Q10	446.32	4/1/2010	42.01	42.30	404.02	404.31	0.29	404.26	403.19 - 378.19 (43.13 - 68.13)	*Product confirmed on interface probe.
3Q10	446.32	7/1/2010	40.58	40.87	405.45	405.74	0.29	405.69		*Product confirmed on interface probe.
4Q10	446.32	11/11/2010	39.72	40.00	406.32	406.60	0.28	406.55		*
1Q11	446.32	1/13/2011	40.04	40.43	405.89	406.28	0.39	406.21		*
2Q11	446.32	4/25/2011	40.81	40.83	405.49	405.51	0.02	405.51		*
3Q11	446.32	7/5/2011	38.57	38.59	407.73	407.75	0.02	407.75		*
	446.32	9/19/2011	NE	38.31	NA	NA	NA	408.01		*
4Q11	446.32	10/5/2011	38.52	38.53	407.79	407.80	0.01	407.80		*
1Q12	446.32	1/4/2012	NE	40.48	NA	NA	NA	405.84		*
2Q12	446.32	4/4/2012	NE	41.62	NA	NA	NA	404.70		*
3Q12	446.32	7/2/2012	42.14	42.14	404.18	404.18	0.00	404.18		*
4Q12	446.32	10/2/2012	44.10	44.20	402.12	402.22	0.10	402.20		
1Q13	446.32	1/2/2013	NE	44.87	NA	NA	NA	401.45		
P-82A										
2Q10	434.69	4/1/2010	NE	26.62	NA	NA	NA	408.07	401.48 - 386.48 (33.21 - 48.21)	*
3Q10	434.69	7/1/2010	NE	25.00	NA	NA	NA	409.69		*
4Q10	434.69	10/1/2010	NE	24.07	NA	NA	NA	410.62		*
1Q11	434.69	1/13/2011	NE	25.29	NA	NA	NA	409.40		*
2Q11	434.69	4/1/2011	NE	25.12	NA	NA	NA	409.57		*
3Q11	434.69	7/5/2011	NE	23.01	NA	NA	NA	411.68		*
	434.69	9/19/2011	NE	23.62	NA	NA	NA	411.07		*
4Q11	434.69	10/5/2011	NE	24.00	NA	NA	NA	410.69		*
1Q12	434.69	1/3/2012	NE	25.50	NA	NA	NA	409.19		*
2Q12	434.69	4/2/2012	NE	26.82	NA	NA	NA	407.87		*
3Q12	434.69	7/2/2012	NE	27.34	NA	NA	NA	407.35		*
4Q12	434.69	10/2/2012	NE	29.07	NA	NA	NA	405.62		*
1Q13	434.69	1/3/2013	NE	30.09	NA	NA	NA	404.60		*
P-82B										
2Q10	434.44	4/1/2010	NE	26.33	NA	NA	NA	408.11	370.84 - 368.84 (63.60 - 65.60)	*
3Q10	434.44	7/1/2010	NE	24.71	NA	NA	NA	409.73		*
4Q10	434.44	10/1/2010	NE	23.78	NA	NA	NA	410.66		*
1Q11	434.44	1/13/2011	NE	25.01	NA	NA	NA	409.43		*
2Q11	434.44	4/1/2011	NE	24.85	NA	NA	NA	409.59		*
3Q11	434.44	7/5/2011	NE	22.71	NA	NA	NA	411.73		*
	434.44	9/19/2011	NE	23.36	NA	NA	NA	411.08		*
4Q11	434.44	10/5/2011	NE	23.73	NA	NA	NA	410.71		*
1Q12	434.44	1/3/2012	NE	25.21	NA	NA	NA	409.23		*
2Q12	434.44	4/2/2012	NE	26.55	NA	NA	NA	407.89		*
3Q12	434.44	7/2/2012	NE	27.07	NA	NA	NA	407.37		*
4Q12	434.44	10/2/2012	NE	28.81	NA	NA	NA	405.63		*
1Q13	434.44	1/3/2013	NE	29.82	NA	NA	NA	404.62		*
P-82C										
2Q10	434.16	4/1/2010	NE	26.05	NA	NA	NA	408.11	351.39 - 349.39 (82.77 - 84.77)	*
3Q10	434.16	7/1/2010	NE	25.47	NA	NA	NA	408.69		*
4Q10	434.16	10/1/2010	NE	23.49	NA	NA	NA	410.67		*
1Q11	434.16	1/13/2011	NE	24.73	NA	NA	NA	409.43		*
2Q11	434.16	4/1/2011	NE	24.87	NA	NA	NA	409.29		*
3Q11	434.16	7/5/2011	NE	22.75	NA	NA	NA	411.41		*
	434.16	9/19/2011	NE	23.40	NA	NA	NA	410.76		*
4Q11	434.16	10/5/2011	NE	23.81	NA	NA	NA	410.35		*
1Q12	434.16	1/3/2012	NE	25.26	NA	NA	NA	408.90		*
2Q12	434.16	4/2/2012	NE	26.61	NA	NA	NA	407.55		*
3Q12	434.16	7/2/2012	NE	27.11	NA	NA	NA	407.05		*
4Q12	434.16	10/2/2012	NE	28.85	NA	NA	NA	405.31		*
1Q13	434.16	1/3/2013	NE	29.86	NA	NA	NA	404.30		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-82D										
2Q10	434.85	4/1/2010	NE	26.82	NA	NA	NA	408.03	323.43 - 321.43 (111.42 - 113.42)	*
3Q10	434.85	7/1/2010	NE	25.20	NA	NA	NA	409.65		*
4Q10	434.85	10/1/2010	NE	24.26	NA	NA	NA	410.59		*
1Q11	434.85	1/13/2011	NE	25.48	NA	NA	NA	409.37		*
2Q11	434.85	4/1/2011	NE	25.63	NA	NA	NA	409.22		*
3Q11	434.85	7/5/2011	NE	23.54	NA	NA	NA	411.31		*
	434.85	9/19/2011	NE	24.16	NA	NA	NA	410.69		*
4Q11	434.85	10/5/2011	NE	24.56	NA	NA	NA	410.29		*
1Q12	434.85	1/3/2012	NE	26.06	NA	NA	NA	408.79		*
2Q12	434.85	4/2/2012	NE	27.37	NA	NA	NA	407.48		*
3Q12	434.85	7/2/2012	NE	27.91	NA	NA	NA	406.94		*
4Q12	434.85	10/2/2012	NE	29.62	NA	NA	NA	405.23		*
1Q13	434.85	1/3/2013	NE	30.65	NA	NA	NA	404.20		*
P-83A										
2Q10	445.23	4/1/2010	NE	42.05	NA	NA	NA	403.18	398.58 - 383.58 (46.65 - 61.65)	*
3Q10	445.23	7/1/2010	NE	40.64	NA	NA	NA	404.59		*
4Q10	445.23	10/1/2010	NE	38.82	NA	NA	NA	406.41		*
1Q11	445.23	1/13/2011	NE	37.93	NA	NA	NA	407.30		*
2Q11	445.23	4/1/2011	NE	38.42	NA	NA	NA	406.81		*
3Q11	445.23	7/5/2011	NE	36.25	NA	NA	NA	408.98		*
	445.23	9/19/2011	NE	37.21	NA	NA	NA	408.02		*
4Q11	445.23	10/6/2011	NE	37.41	NA	NA	NA	407.82		*
1Q12	445.23	1/3/2012	NE	38.31	NA	NA	NA	406.92		*
2Q12	445.23	4/2/2012	NE	39.85	NA	NA	NA	405.38		*
3Q12	445.23	7/2/2012	NE	40.50	NA	NA	NA	404.73		*
4Q12	445.23	10/1/2012	NE	42.29	NA	NA	NA	402.94		*
1Q13	445.23	1/3/2013	NE	43.85	NA	NA	NA	401.38		*
P-83B										
2Q10	445.47	4/1/2010	NE	42.31	NA	NA	NA	403.16	375.82 - 373.82 (69.65 - 71.65)	*
3Q10	445.47	7/1/2010	NE	40.91	NA	NA	NA	404.56		*
4Q10	445.47	10/1/2010	NE	39.08	NA	NA	NA	406.39		*
1Q11	445.47	1/13/2011	NE	38.20	NA	NA	NA	407.27		*
2Q11	445.47	4/1/2011	NE	38.69	NA	NA	NA	406.78		*
3Q11	445.47	7/5/2011	NE	36.57	NA	NA	NA	408.90		*
	445.47	9/19/2011	NE	37.48	NA	NA	NA	407.99		*
4Q11	445.47	10/6/2011	NE	37.68	NA	NA	NA	407.79		*
1Q12	445.47	1/3/2012	NE	38.58	NA	NA	NA	406.89		*
2Q12	445.47	4/2/2012	NE	40.13	NA	NA	NA	405.34		*
3Q12	445.47	7/2/2012	NE	40.85	NA	NA	NA	404.62		*
4Q12	445.47	10/1/2012	NE	42.57	NA	NA	NA	402.90		*
1Q13	445.47	1/3/2013	NE	44.13	NA	NA	NA	401.34		*
P-83C										
2Q10	445.64	4/1/2010	NE	42.46	NA	NA	NA	403.18	353.25 - 351.25 (92.39 - 94.39)	*
3Q10	445.64	7/1/2010	NE	41.08	NA	NA	NA	404.56		*
4Q10	445.64	10/1/2010	NE	39.24	NA	NA	NA	406.40		*
1Q11	445.64	1/13/2011	NE	38.68	NA	NA	NA	406.96		*
2Q11	445.64	4/1/2011	NE	38.85	NA	NA	NA	406.79		*
3Q11	445.64	7/5/2011	NE	37.02	NA	NA	NA	408.62		*
	445.64	9/19/2011	NE	37.94	NA	NA	NA	407.70		*
4Q11	445.64	10/6/2011	NE	38.15	NA	NA	NA	407.49		*
1Q12	445.64	1/3/2012	NE	39.05	NA	NA	NA	406.59		*
2Q12	445.64	4/2/2012	NE	40.61	NA	NA	NA	405.03		*
3Q12	445.64	7/2/2012	NE	40.96	NA	NA	NA	404.68		*
4Q12	445.64	10/1/2012	NE	43.04	NA	NA	NA	402.60		*
1Q13	445.64	1/3/2013	NE	44.59	NA	NA	NA	401.05		*
P-83D										
2Q10	445.55	4/1/2010	NE	42.40	NA	NA	NA	403.15	311.84 - 309.84 (133.71 - 135.71)	*
3Q10	445.55	7/1/2010	NE	41.00	NA	NA	NA	404.55		*
4Q10	445.55	10/1/2010	NE	39.11	NA	NA	NA	406.44		*
1Q11	445.55	1/13/2011	NE	38.59	NA	NA	NA	406.96		*
2Q11	445.55	4/1/2011	NE	38.31	NA	NA	NA	407.24		*
3Q11	445.55	7/5/2011	NE	36.98	NA	NA	NA	408.57		*
	445.55	9/19/2011	NE	37.87	NA	NA	NA	407.68		*
4Q11	445.55	10/6/2011	NE	38.07	NA	NA	NA	407.48		*
1Q12	445.55	1/3/2012	NE	39.01	NA	NA	NA	406.54		*
2Q12	445.55	4/2/2012	NE	40.53	NA	NA	NA	405.02		*
3Q12	445.55	7/2/2012	NE	40.12	NA	NA	NA	405.43		*
4Q12	445.55	10/1/2012	NE	42.98	NA	NA	NA	402.57		*
1Q13	445.55	1/3/2013	NE	44.54	NA	NA	NA	401.01		*
P-84A										
2Q10	446.39	4/1/2010	NE	42.91	NA	NA	NA	403.48	392.57 - 377.57 (53.82 - 68.82)	*
3Q10	446.39	7/1/2010	NE	41.55	NA	NA	NA	404.84		*
4Q10	446.39	11/11/2010	NE	39.95	NA	NA	NA	406.44		*
1Q11	446.39	1/13/2011	NE	39.55	NA	NA	NA	406.84		*
2Q11	446.39	4/25/2011	NE	40.11	NA	NA	NA	406.28		*
3Q11	446.39	7/5/2011	NE	38.58	NA	NA	NA	407.81		*
4Q11	446.39	10/6/2011	NE	34.36	NA	NA	NA	412.03		*
1Q12	446.39	1/5/2012	NE	39.49	NA	NA	NA	406.90		*
2Q12	446.39	4/3/2012	NE	40.70	NA	NA	NA	405.69		*
3Q12	446.39	7/5/2012	NE	41.40	NA	NA	NA	404.99		*
4Q12	446.39	10/2/2012	NE	43.10	NA	NA	NA	403.29		*
1Q13	446.39	1/4/2013	NE	44.20	NA	NA	NA	402.19		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-84B										
2Q10	446.10	4/1/2010	NE	42.61	NA	NA	NA	403.49	372.60 - 370.60 (73.50 - 75.50)	*
3Q10	446.10	7/1/2010	NE	41.28	NA	NA	NA	404.82		*
4Q10	446.10	11/11/2010	NE	39.67	NA	NA	NA	406.43		*
1Q11	446.10	1/13/2011	NE	39.27	NA	NA	NA	406.83		*
2Q11	446.10	4/25/2011	NE	39.85	NA	NA	NA	406.25		*
3Q11	446.10	7/5/2011	NE	38.32	NA	NA	NA	407.78		*
4Q11	446.10	10/6/2011	NE	38.09	NA	NA	NA	408.01		*
1Q12	446.10	1/5/2012	NE	39.23	NA	NA	NA	406.87		*
2Q12	446.10	4/3/2012	NE	40.43	NA	NA	NA	405.67		*
3Q12	446.10	7/5/2012	NE	41.43	NA	NA	NA	404.67		*
4Q12	446.10	10/2/2012	NE	42.84	NA	NA	NA	403.26		*
1Q13	446.10	1/4/2013	NE	43.92	NA	NA	NA	402.18		*
P-84C										
2Q10	446.13	4/1/2010	NE	42.65	NA	NA	NA	403.48	352.08 - 350.08 (94.05 - 96.05)	*
3Q10	446.13	7/1/2010	NE	41.32	NA	NA	NA	404.81		*
4Q10	446.13	11/11/2010	NE	39.68	NA	NA	NA	406.45		*
1Q11	446.13	1/13/2011	NE	39.29	NA	NA	NA	406.84		*
2Q11	446.13	4/25/2011	NE	39.86	NA	NA	NA	406.27		*
3Q11	446.13	7/5/2011	NE	38.64	NA	NA	NA	407.49		*
4Q11	446.13	10/6/2011	NE	38.41	NA	NA	NA	407.72		*
1Q12	446.13	1/5/2012	NE	39.53	NA	NA	NA	406.60		*
2Q12	446.13	4/3/2012	NE	40.75	NA	NA	NA	405.38		*
3Q12	446.13	7/5/2012	NE	41.45	NA	NA	NA	404.68		*
4Q12	446.13	10/2/2012	NE	43.15	NA	NA	NA	402.98		*
1Q13	446.13	1/4/2013	NE	44.39	NA	NA	NA	401.74		*
P-84D										
2Q10	446.14	4/1/2010	NE	42.63	NA	NA	NA	403.51	324.99 - 322.99 (121.15 - 123.15)	*
3Q10	446.14	7/1/2010	NE	41.34	NA	NA	NA	404.80		*
4Q10	446.14	11/11/2010	NE	39.69	NA	NA	NA	406.45		*
1Q11	446.14	1/13/2011	NE	39.31	NA	NA	NA	406.83		*
2Q11	446.14	4/25/2011	NE	39.87	NA	NA	NA	406.27		*
3Q11	446.14	7/5/2011	NE	38.68	NA	NA	NA	407.46		*
4Q11	446.14	10/6/2011	NE	38.43	NA	NA	NA	407.71		*
1Q12	446.14	1/5/2012	NE	39.55	NA	NA	NA	406.59		*
2Q12	446.14	4/3/2012	NE	40.77	NA	NA	NA	405.37		*
3Q12	446.14	7/5/2012	NE	41.46	NA	NA	NA	404.68		*
4Q12	446.14	10/2/2012	NE	43.18	NA	NA	NA	402.96		*
1Q13	446.14	1/4/2013	NE	44.41	NA	NA	NA	401.73		*
P-88A										
2Q10	443.12	4/1/2010	NE	33.22	NA	NA	NA	409.90	404.72 - 389.72 (38.40 - 53.40)	*
3Q10	443.12	7/1/2010	NE	31.80	NA	NA	NA	411.32		*
4Q10	443.12	10/1/2010	NE	30.65	NA	NA	NA	412.47		*
1Q11	443.12	1/14/2011	NE	31.16	NA	NA	NA	411.96		*
2Q11	443.12	4/1/2011	NE	31.36	NA	NA	NA	411.76		*
3Q11	443.12	7/5/2011	NE	29.78	NA	NA	NA	413.34		*
	443.12	9/19/2011	NE	29.72	NA	NA	NA	413.40		*
4Q11	443.12	10/5/2011	NE	29.92	NA	NA	NA	413.20		*
1Q12	443.12	1/4/2012	NE	31.18	NA	NA	NA	411.94		*
2Q12	443.12	4/3/2012	NE	32.55	NA	NA	NA	410.57		*
3Q12	443.12	7/2/2012	NE	32.97	NA	NA	NA	410.15		*
4Q12	443.12	10/2/2012	NE	34.58	NA	NA	NA	408.54		*
1Q13	443.12	1/2/2013	NE	35.80	NA	NA	NA	407.32		*
P-88B										
2Q10	443.17	4/1/2010	NE	33.28	NA	NA	NA	409.89	370.62 - 368.62 (72.55 - 74.55)	*
3Q10	443.17	7/1/2010	NE	31.86	NA	NA	NA	411.31		*
4Q10	443.17	10/1/2010	NE	30.87	NA	NA	NA	412.30		*
1Q11	443.17	1/14/2011	NE	31.37	NA	NA	NA	411.80		*
2Q11	443.17	4/1/2011	NE	31.42	NA	NA	NA	411.75		*
3Q11	443.17	7/5/2011	NE	29.71	NA	NA	NA	413.46		*
	443.17	9/19/2011	NE	29.64	NA	NA	NA	413.53		*
4Q11	443.17	10/5/2011	NE	29.86	NA	NA	NA	413.31		*
1Q12	443.17	1/4/2012	NE	31.16	NA	NA	NA	412.01		*
2Q12	443.17	4/3/2012	NE	32.50	NA	NA	NA	410.67		*
3Q12	443.17	7/2/2012	NE	33.01	NA	NA	NA	410.16		*
4Q12	443.17	10/2/2012	NE	34.56	NA	NA	NA	408.61		*
1Q13	443.17	1/2/2013	NE	35.82	NA	NA	NA	407.35		*
P-88C										
2Q10	443.16	4/1/2010	NE	33.25	NA	NA	NA	409.91	350.86 - 348.86 (92.30 - 94.30)	*
3Q10	443.16	7/1/2010	NE	31.85	NA	NA	NA	411.31		*
4Q10	443.16	10/1/2010	NE	30.67	NA	NA	NA	412.49		*
1Q11	443.16	1/14/2011	NE	31.17	NA	NA	NA	411.99		*
2Q11	443.16	4/1/2011	NE	31.38	NA	NA	NA	411.78		*
3Q11	443.16	7/5/2011	NE	30.02	NA	NA	NA	413.14		*
	443.16	9/19/2011	NE	29.95	NA	NA	NA	413.21		*
4Q11	443.16	10/5/2011	NE	30.14	NA	NA	NA	413.02		*
1Q12	443.16	1/4/2012	NE	31.44	NA	NA	NA	411.72		*
2Q12	443.16	4/3/2012	NE	32.78	NA	NA	NA	410.38		*
3Q12	443.16	7/2/2012	NE	33.15	NA	NA	NA	410.01		*
4Q12	443.16	10/2/2012	NE	34.83	NA	NA	NA	408.33		*
1Q13	443.16	1/2/2013	NE	36.10	NA	NA	NA	407.06		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-88D										
2Q10	443.23	4/1/2010	NE	33.33	NA	NA	NA	409.90	329.53 - 327.53 (113.70 - 115.70)	*
3Q10	443.23	7/1/2010	NE	31.87	NA	NA	NA	411.36		*
4Q10	443.23	10/1/2010	NE	30.73	NA	NA	NA	412.50		*
1Q11	443.23	1/14/2011	NE	31.35	NA	NA	NA	411.88		*
2Q11	443.23	4/1/2011	NE	31.81	NA	NA	NA	411.42		*
3Q11	443.23	7/5/2011	NE	30.08	NA	NA	NA	413.15		*
	443.23	9/19/2011	NE	30.03	NA	NA	NA	413.20		*
4Q11	443.23	10/5/2011	NE	30.25	NA	NA	NA	412.98		*
1Q12	443.23	1/4/2012	NE	31.57	NA	NA	NA	411.66		*
2Q12	443.23	4/3/2012	NE	32.91	NA	NA	NA	410.32		*
3Q12	443.23	7/2/2012	NE	33.41	NA	NA	NA	409.82		*
4Q12	443.23	10/2/2012	NE	34.99	NA	NA	NA	408.24		*
1Q13	443.23	1/2/2013	NE	36.23	NA	NA	NA	407.00		*
T-37										
2Q10	447.15	4/1/2010	NE	41.10	NA	NA	NA	406.05	398.30 - 378.30 (48.86 - 68.86)	*
3Q10	447.15	7/1/2010	NE	39.78	NA	NA	NA	407.37		*
4Q10	447.15	10/1/2010	NE	38.12	NA	NA	NA	409.03		*
1Q11	447.15	1/13/2011	NE	37.61	NA	NA	NA	409.54		*
2Q11	447.15	4/1/2011	NE	37.63	NA	NA	NA	409.52		*
3Q11	447.15	7/5/2011	NE	35.84	NA	NA	NA	411.31		*
4Q11	447.15	10/6/2011	NE	36.90	NA	NA	NA	410.25		*
1Q12	447.15	1/3/2012	NE	37.95	NA	NA	NA	409.20		*
2Q12	447.15	4/2/2012	NE	39.12	NA	NA	NA	408.03		*
3Q12	447.15	7/2/2012	NE	39.91	NA	NA	NA	407.24		*
4Q12	447.15	10/1/2012	NE	41.44	NA	NA	NA	405.71		*
1Q13	447.15	1/3/2013	NE	43.07	NA	NA	NA	404.08		*
P-89B										
2Q10	447.35	4/1/2010	NE	41.29	NA	NA	NA	406.06	369.99 - 367.99 (77.36 - 79.36)	*
3Q10	447.35	7/1/2010	NE	39.97	NA	NA	NA	407.38		*
4Q10	447.35	10/1/2010	NE	38.29	NA	NA	NA	409.06		*
1Q11	447.35	1/14/2011	NE	37.78	NA	NA	NA	409.57		*
2Q11	447.35	4/1/2011	NE	37.80	NA	NA	NA	409.55		*
3Q11	447.35	7/5/2011	NE	35.99	NA	NA	NA	411.36		*
	447.35	9/19/2011	NE	36.81	NA	NA	NA	410.54		*
4Q11	447.35	10/6/2011	NE	37.05	NA	NA	NA	410.30		*
1Q12	447.35	1/3/2012	NE	38.10	NA	NA	NA	409.25		*
2Q12	447.35	4/2/2012	NE	39.30	NA	NA	NA	408.05		*
3Q12	447.35	7/2/2012	NE	40.09	NA	NA	NA	407.26		*
4Q12	447.35	10/1/2012	NE	41.62	NA	NA	NA	405.73		*
1Q13	447.35	1/3/2013	NE	43.23	NA	NA	NA	404.12		*
P-89C										
2Q10	447.68	4/1/2010	NE	41.63	NA	NA	NA	406.05	350.05 - 348.05 (97.63 - 99.63)	*
3Q10	447.68	7/1/2010	NE	40.32	NA	NA	NA	407.36		*
4Q10	447.68	10/1/2010	NE	38.64	NA	NA	NA	409.04		*
1Q11	447.68	1/14/2011	NE	38.10	NA	NA	NA	409.58		*
2Q11	447.68	4/1/2011	NE	38.14	NA	NA	NA	409.54		*
3Q11	447.68	7/5/2011	NE	36.33	NA	NA	NA	411.35		*
	447.68	9/19/2011	NE	37.13	NA	NA	NA	410.55		*
4Q11	447.68	10/6/2011	NE	37.39	NA	NA	NA	410.29		*
1Q12	447.68	1/3/2012	NE	38.42	NA	NA	NA	409.26		*
2Q12	447.68	4/2/2012	NE	39.63	NA	NA	NA	408.05		*
3Q12	447.68	7/2/2012	NE	40.42	NA	NA	NA	407.26		*
4Q12	447.68	10/1/2012	NE	41.94	NA	NA	NA	405.74		*
1Q13	447.68	1/3/2013	NE	43.58	NA	NA	NA	404.10		*
P-89D										
2Q10	447.54	4/1/2010	NE	41.66	NA	NA	NA	405.88	307.20 - 305.20 (140.34 - 142.34)	*
3Q10	447.54	7/1/2010	NE	40.30	NA	NA	NA	407.24		*
4Q10	447.54	10/1/2010	NE	38.61	NA	NA	NA	408.93		*
1Q11	447.54	1/14/2011	NE	38.11	NA	NA	NA	409.43		*
2Q11	447.54	4/1/2011	NE	38.12	NA	NA	NA	409.42		*
3Q11	447.54	7/5/2011	NE	36.23	NA	NA	NA	411.31		*
	447.54	9/19/2011	NE	37.04	NA	NA	NA	410.50		*
4Q11	447.54	10/6/2011	NE	37.35	NA	NA	NA	410.19		*
1Q12	447.54	1/3/2012	NE	38.47	NA	NA	NA	409.07		*
2Q12	447.54	4/2/2012	NE	39.56	NA	NA	NA	407.98		*
3Q12	447.54	7/2/2012	NE	40.36	NA	NA	NA	407.18		*
4Q12	447.54	10/1/2012	NE	41.94	NA	NA	NA	405.60		*
1Q13	447.54	1/3/2013	NE	43.52	NA	NA	NA	404.02		*
P-91A										
2Q10	447.19	4/1/2010	46.08	46.58	400.61	401.11	0.50	401.01	395.68 - 380.68 (51.52 - 66.52)	*Product confirmed on interface probe.
3Q10	447.19	7/1/2010	44.85	45.36	401.83	402.34	0.51	402.24		*Product confirmed on interface probe.
4Q10	447.19	10/1/2010	42.70	43.19	404.00	404.49	0.49	404.39		*Product confirmed on interface probe.
1Q11	447.19	1/14/2011	41.19	41.64	405.55	406.00	0.45	405.91		*
2Q11	447.19	4/1/2011	NE	43.10	NA	NA	NA	404.09		*
3Q11	447.19	7/5/2011	NE	40.42	NA	NA	NA	406.77		*
	447.19	9/19/2011	NE	41.69	NA	NA	NA	405.50		*
4Q11	447.19	10/6/2011	NE	41.63	NA	NA	NA	405.56		*
1Q12	447.19	1/3/2012	NE	42.91	NA	NA	NA	404.28		*
2Q12	447.19	4/3/2012	NE	44.31	NA	NA	NA	402.88		*
3Q12	447.19	7/2/2012	NE	45.76	NA	NA	NA	401.43		*
4Q12	447.19	10/1/2012	NE	46.72	NA	NA	NA	400.47		*
1Q13	447.19	1/4/2013	NE	48.92	NA	NA	NA	398.27		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-91B										
2Q10	447.26	4/1/2010	NE	46.21	NA	NA	NA	401.05	372.57 - 370.57 (74.69 - 76.69)	*
3Q10	447.26	7/1/2010	NE	45.08	NA	NA	NA	402.18		*
4Q10	447.26	10/1/2010	NE	42.87	NA	NA	NA	404.39		*
1Q11	447.26	1/14/2011	NE	41.41	NA	NA	NA	405.85		*
2Q11	447.26	4/1/2011	NE	43.28	NA	NA	NA	403.98		*
3Q11	447.26	7/5/2011	NE	40.62	NA	NA	NA	406.64		*
	447.26	9/19/2011	NE	41.78	NA	NA	NA	405.48		*
4Q11	447.26	10/6/2011	NE	41.53	NA	NA	NA	405.73		*
1Q12	447.26	1/3/2012	NE	43.00	NA	NA	NA	404.26		*
2Q12	447.26	4/3/2012	NE	44.11	NA	NA	NA	403.15		*
3Q12	447.26	7/2/2012	NE	45.74	NA	NA	NA	401.52		*
4Q12	447.26	10/1/2012	NE	46.79	NA	NA	NA	400.47		*
1Q13	447.26	1/4/2013	NE	49.10	NA	NA	NA	398.16		*
P-91C										
2Q10	447.02	4/1/2010	NE	46.08	NA	NA	NA	400.94	352.29 - 350.29 (94.73 - 96.73)	*
3Q10	447.02	7/1/2010	NE	44.83	NA	NA	NA	402.19		*
4Q10	447.02	10/1/2010	NE	42.57	NA	NA	NA	404.45		*
1Q11	447.02	1/14/2011	NE	41.18	NA	NA	NA	405.84		*
2Q11	447.02	4/1/2011	NE	43.00	NA	NA	NA	404.02		*
3Q11	447.02	7/5/2011	NE	40.35	NA	NA	NA	406.67		*
	447.02	9/19/2011	NE	41.51	NA	NA	NA	405.51		*
4Q11	447.02	10/6/2011	NE	41.47	NA	NA	NA	405.55		*
1Q12	447.02	1/3/2012	NE	42.74	NA	NA	NA	404.28		*
2Q12	447.02	4/3/2012	NE	44.11	NA	NA	NA	402.91		*
3Q12	447.02	7/2/2012	NE	45.53	NA	NA	NA	401.49		*
4Q12	447.02	10/1/2012	NE	46.54	NA	NA	NA	400.48		*
1Q13	447.02	1/4/2013	NE	48.84	NA	NA	NA	398.18		*
P-91D										
2Q10	447.02	4/1/2010	NE	46.03	NA	NA	NA	400.99	278.70 - 276.70 (168.32 - 170.32)	*
3Q10	447.02	7/1/2010	NE	44.77	NA	NA	NA	402.25		*
4Q10	447.02	10/1/2010	NE	42.52	NA	NA	NA	404.50		*
1Q11	447.02	1/14/2011	NE	41.14	NA	NA	NA	405.88		*
2Q11	447.02	4/1/2011	NE	42.97	NA	NA	NA	404.05		*
3Q11	447.02	7/5/2011	NE	40.27	NA	NA	NA	406.75		*
	447.02	9/19/2011	NE	41.49	NA	NA	NA	405.53		*
4Q11	447.02	10/6/2011	NE	41.44	NA	NA	NA	405.58		*
1Q12	447.02	1/3/2012	NE	42.73	NA	NA	NA	404.29		*
2Q12	447.02	4/3/2012	NE	44.35	NA	NA	NA	402.67		*
3Q12	447.02	7/2/2012	NE	45.55	NA	NA	NA	401.47		*
4Q12	447.02	10/1/2012	NE	46.53	NA	NA	NA	400.49		*
1Q13	447.02	1/4/2013	NE	48.82	NA	NA	NA	398.20		*
P-92A										
2Q10	446.12	4/1/2010	43.43	43.63	402.49	402.69	0.20	402.65	398.55 - 383.55 (47.57 - 62.57)	*Product confirmed on interface probe.
3Q10	446.12	7/1/2010	42.43	42.63	403.49	403.69	0.20	403.65		*Product confirmed on interface probe.
4Q10	446.12	10/1/2010	40.50	40.70	405.42	405.62	0.20	405.58		*Product confirmed on interface probe.
1Q11	446.12	1/14/2011	39.43	39.57	406.55	406.69	0.14	406.66		*
2Q11	446.12	4/1/2011	NE	41.02	NA	NA	NA	405.10		*
3Q11	446.12	7/5/2011	38.55	38.59	407.53	407.57	0.04	407.56		*
	446.12	9/19/2011	39.62	39.67	406.45	406.50	0.05	406.49		*
4Q11	446.12	10/6/2011	39.70	39.76	406.36	406.42	0.06	406.41		*
1Q12	446.12	1/4/2012	41.05	41.07	405.05	405.07	0.02	405.07		*
2Q12	446.12	4/3/2012	NE	42.77	NA	NA	NA	403.35		*
3Q12	446.12	7/3/2012	44.06	44.08	402.04	402.06	0.02	402.06		*
4Q12	446.12	10/1/2012	NE	45.04	NA	NA	NA	401.08		*
1Q13	446.12	1/4/2013	46.83	46.84	399.28	399.29	0.01	399.29		*
P-92B										
2Q10	446.07	4/1/2010	NE	43.44	NA	NA	NA	402.63	372.42 - 370.42 (73.65 - 75.65)	*
3Q10	446.07	7/1/2010	NE	42.43	NA	NA	NA	403.64		*
4Q10	446.07	10/1/2010	NE	40.51	NA	NA	NA	405.56		*
1Q11	446.07	1/14/2011	NE	39.41	NA	NA	NA	406.66		*
2Q11	446.07	4/1/2011	NE	40.92	NA	NA	NA	405.15		*
3Q11	446.07	7/5/2011	NE	38.51	NA	NA	NA	407.56		*
	446.07	9/19/2011	NE	39.61	NA	NA	NA	406.46		*
4Q11	446.07	10/6/2011	NE	39.68	NA	NA	NA	406.39		*
1Q12	446.07	1/4/2012	NE	41.02	NA	NA	NA	405.05		*
2Q12	446.07	4/3/2012	NE	42.74	NA	NA	NA	403.33		*
3Q12	446.07	7/3/2012	NE	44.02	NA	NA	NA	402.05		*
4Q12	446.07	10/1/2012	NE	44.97	NA	NA	NA	401.10		*
1Q13	446.07	1/4/2013	NE	46.80	NA	NA	NA	399.27		*
P-92C										
2Q10	445.98	4/1/2010	NE	43.17	NA	NA	NA	402.81	352.54 - 350.54 (93.44 - 95.44)	*
3Q10	445.98	7/1/2010	NE	42.30	NA	NA	NA	403.68		*
4Q10	445.98	10/1/2010	NE	40.38	NA	NA	NA	405.60		*
1Q11	445.98	1/14/2011	NE	39.32	NA	NA	NA	406.66		*
2Q11	445.98	4/1/2011	NE	40.77	NA	NA	NA	405.21		*
3Q11	445.98	7/5/2011	NE	38.33	NA	NA	NA	407.65		*
	445.98	9/19/2011	NE	39.50	NA	NA	NA	406.48		*
4Q11	445.98	10/6/2011	NE	39.63	NA	NA	NA	406.35		*
1Q12	445.98	1/4/2012	NE	39.95	NA	NA	NA	406.03		*
2Q12	445.98	4/3/2012	NE	42.61	NA	NA	NA	403.37		*
3Q12	445.98	7/3/2012	NE	44.07	NA	NA	NA	401.91		*
4Q12	445.98	10/1/2012	NE	45.04	NA	NA	NA	400.94		*
1Q13	445.98	1/4/2013	NE	46.83	NA	NA	NA	399.15		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-92D										
2Q10	445.90	4/1/2010	NE	43.24	NA	NA	NA	402.66	304.90 - 302.90 (141.00 - 143.00)	*
3Q10	445.90	7/1/2010	NE	42.31	NA	NA	NA	403.59		*
4Q10	445.90	10/1/2010	NE	40.37	NA	NA	NA	405.53		*
1Q11	445.90	1/14/2011	NE	39.24	NA	NA	NA	406.66		*
2Q11	445.90	4/1/2011	NE	40.73	NA	NA	NA	405.17		*
3Q11	445.90	7/5/2011	NE	38.33	NA	NA	NA	407.57		*
	445.90	9/19/2011	NE	39.46	NA	NA	NA	406.44		*
4Q11	445.90	10/6/2011	NE	39.57	NA	NA	NA	406.33		*
1Q12	445.90	1/4/2012	NE	39.89	NA	NA	NA	406.01		*
2Q12	445.90	4/3/2012	NE	42.67	NA	NA	NA	403.23		*
3Q12	445.90	7/3/2012	NE	43.96	NA	NA	NA	401.94		*
4Q12	445.90	10/1/2012	NE	44.82	NA	NA	NA	401.08		*
1Q13	445.90	1/4/2013	NE	46.72	NA	NA	NA	399.18		*
P-93A										
2Q10	446.58	4/1/2010	NE	42.67	NA	NA	NA	403.91	398.41 - 383.41 (48.17 - 63.17)	*
3Q10	446.58	7/1/2010	NE	41.47	NA	NA	NA	405.11		*
4Q10	446.58	11/11/2010	NE	40.75	NA	NA	NA	405.83		*
1Q11	446.58	1/14/2011	NE	40.97	NA	NA	NA	405.61		*
2Q11	446.58	4/25/2011	NE	41.80	NA	NA	NA	404.78		*
3Q11	446.58	7/5/2011	NE	39.40	NA	NA	NA	407.18		*
	446.58	9/19/2011	NE	38.86	NA	NA	NA	407.72		*
4Q11	446.58	10/6/2011	NE	39.16	NA	NA	NA	407.42		*
1Q12	446.58	1/4/2012	NE	41.32	NA	NA	NA	405.26		*
2Q12	446.58	4/3/2012	NE	42.72	NA	NA	NA	403.86		*
3Q12	446.58	7/5/2012	NE	42.95	NA	NA	NA	403.63		*
4Q12	446.58	10/2/2012	NE	44.72	NA	NA	NA	401.86		*
1Q13	446.58	1/8/2013	NE	45.73	NA	NA	NA	400.85		*
P-93B										
2Q10	446.46	4/1/2010	NE	42.56	NA	NA	NA	403.90	371.86 - 369.86 (74.60 - 76.60)	*
3Q10	446.46	7/1/2010	NE	41.38	NA	NA	NA	405.08		*
4Q10	446.46	11/11/2010	NE	40.73	NA	NA	NA	405.73		*
1Q11	446.46	1/14/2011	NE	41.03	NA	NA	NA	405.43		*
2Q11	446.46	4/25/2011	NE	41.69	NA	NA	NA	404.77		*
3Q11	446.46	7/5/2011	NE	39.44	NA	NA	NA	407.02		*
	446.46	9/19/2011	NE	38.91	NA	NA	NA	407.55		*
4Q11	446.46	10/6/2011	NE	39.19	NA	NA	NA	407.27		*
1Q12	446.46	1/4/2012	NE	41.38	NA	NA	NA	405.08		*
2Q12	446.46	4/3/2012	NE	42.80	NA	NA	NA	403.66		*
3Q12	446.46	7/5/2012	NE	42.86	NA	NA	NA	403.60		*
4Q12	446.46	10/2/2012	NE	44.80	NA	NA	NA	401.66		*
1Q13	446.46	1/8/2013	NE	45.77	NA	NA	NA	400.69		*
P-93C										
2Q10	446.51	4/1/2010	NE	42.59	NA	NA	NA	403.92	352.26 - 350.26 (94.26 - 96.26)	*
3Q10	446.51	7/1/2010	NE	41.42	NA	NA	NA	405.09		*
4Q10	446.51	11/11/2010	NE	40.69	NA	NA	NA	405.82		*
1Q11	446.51	1/14/2011	NE	40.91	NA	NA	NA	405.60		*
2Q11	446.51	4/25/2011	NE	41.70	NA	NA	NA	404.81		*
3Q11	446.51	7/5/2011	NE	39.32	NA	NA	NA	407.19		*
	446.51	9/19/2011	NE	38.79	NA	NA	NA	407.72		*
4Q11	446.51	10/6/2011	NE	39.15	NA	NA	NA	407.36		*
1Q12	446.51	1/4/2012	NE	41.27	NA	NA	NA	405.24		*
2Q12	446.51	4/3/2012	NE	42.62	NA	NA	NA	403.89		*
3Q12	446.51	7/5/2012	NE	42.98	NA	NA	NA	403.53		*
4Q12	446.51	10/2/2012	NE	44.68	NA	NA	NA	401.83		*
1Q13	446.51	1/8/2013	NE	45.66	NA	NA	NA	400.85		*
P-93D										
2Q10	446.89	4/1/2010	NE	42.51	NA	NA	NA	404.38	Unknown	
3Q10	446.89	7/1/2010	NE	41.32	NA	NA	NA	405.57		
4Q10	446.36	11/11/2010	NE	40.59	NA	NA	NA	405.77		
1Q11	446.36	1/14/2011	NE	40.81	NA	NA	NA	405.55		
2Q11	446.89	4/25/2011	NE	41.84	NA	NA	NA	405.05	321.14 - 319.14 (125.75 - 127.75)	*
3Q11	446.89	7/5/2011	NE	39.46	NA	NA	NA	407.43		*
	446.89	9/19/2011	NE	38.94	NA	NA	NA	407.95		*
4Q11	446.89	10/6/2011	NE	39.22	NA	NA	NA	407.67		*
1Q12	446.89	1/4/2012	NE	41.41	NA	NA	NA	405.48		*
2Q12	446.89	4/3/2012	NE	42.81	NA	NA	NA	404.08		*
3Q12	446.89	7/5/2012	NE	43.02	NA	NA	NA	403.87		*
4Q12	446.89	10/2/2012	NE	44.43	NA	NA	NA	402.46		*
1Q13	446.89	1/8/2013	NE	45.84	NA	NA	NA	401.05		*
P-94										
2Q10	444.65	4/1/2010	NE	37.55	NA	NA	NA	407.10	398.80 - 383.80 (45.85 - 60.85)	*
3Q10	444.65	7/1/2010	NE	36.11	NA	NA	NA	408.54		*
4Q10	444.65	10/1/2010	NE	35.13	NA	NA	NA	409.52		*
1Q11	444.65	1/13/2011	NE	34.66	NA	NA	NA	409.99		*
2Q11	444.65	4/1/2011	NE	34.27	NA	NA	NA	410.38		*
3Q11	444.65	7/5/2011	NE	32.14	NA	NA	NA	412.51		*
	444.65	9/19/2011	NE	33.17	NA	NA	NA	411.48		*
4Q11	444.65	10/6/2011	NE	33.53	NA	NA	NA	411.12		*
1Q12	444.65	1/3/2012	NE	34.75	NA	NA	NA	409.90		*
2Q12	444.65	4/2/2012	NE	35.68	NA	NA	NA	408.97		*
3Q12	444.65	7/2/2012	NE	36.20	NA	NA	NA	408.45		*
4Q12	444.65	10/1/2012	NE	38.02	NA	NA	NA	406.63		*
1Q13	444.65	1/3/2013	NE	39.75	NA	NA	NA	404.90		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-95										
2Q10	443.44	4/1/2010	NE	31.77	NA	NA	NA	411.67	406.92 - 391.92 (36.52 - 51.52)	*
3Q10	443.44	7/1/2010	NE	30.42	NA	NA	NA	413.02		*
4Q10	443.44	10/1/2010	NE	29.31	NA	NA	NA	414.13		*
1Q11	443.44	1/13/2011	NE	29.68	NA	NA	NA	413.76		*
2Q11	443.44	4/1/2011	NE	29.75	NA	NA	NA	413.69		*
3Q11	443.44	7/5/2011	NE	28.12	NA	NA	NA	415.32		*
4Q11	443.44	10/5/2011	NE	28.24	NA	NA	NA	415.20		*
1Q12	443.44	1/5/2012	NE	29.50	NA	NA	NA	413.94		*
2Q12	443.44	4/3/2012	NE	30.58	NA	NA	NA	412.86		*
3Q12	443.44	7/3/2012	NE	31.04	NA	NA	NA	412.40		*
4Q12	443.44	10/2/2012	NE	32.52	NA	NA	NA	410.92		*
1Q13	443.44	1/2/2013	NE	33.87	NA	NA	NA	409.57		*
P-102										
2Q10	444.91	4/1/2010	NE	35.31	NA	NA	NA	409.60	402.16 - 382.16 (42.75 - 62.75)	*
3Q10	444.91	7/1/2010	NE	33.97	NA	NA	NA	410.94		*
4Q10	444.91	10/1/2010	NE	33.62	NA	NA	NA	411.29		*
1Q11	444.91	1/3/2011	NE	32.61	NA	NA	NA	412.30		*
2Q11	444.91	4/1/2011	NE	32.41	NA	NA	NA	412.50		*
3Q11	444.91	7/5/2011	NE	30.91	NA	NA	NA	414.00		*
	444.91	9/19/2011	NE	31.18	NA	NA	NA	413.73		*
4Q11	444.91	10/6/2011	NE	31.47	NA	NA	NA	413.44		*
1Q12	444.91	1/4/2012	NE	32.45	NA	NA	NA	412.46		*
2Q12	444.91	4/3/2012	NE	33.41	NA	NA	NA	411.50		*
3Q12	444.91	7/2/2012	NE	34.10	NA	NA	NA	410.81		*
4Q12	444.91	10/2/2012	NE	35.69	NA	NA	NA	409.22		*
1Q13	444.91	1/2/2013	NE	36.98	NA	NA	NA	407.93		*
P-114										
2Q10	432.41	4/1/2010	NE	27.05	NA	NA	NA	405.36	399.73 - 379.73 (32.67 - 52.67)	*
3Q10	432.41	7/1/2010	NE	25.00	NA	NA	NA	407.41		*
4Q10	432.41	11/12/2010	NE	24.66	NA	NA	NA	407.75		*
1Q11	432.41	1/13/2011	NE	26.84	NA	NA	NA	405.57		*
2Q11	432.41	4/25/2011	NE	26.61	NA	NA	NA	405.80		*
3Q11	432.41	7/5/2011	NE	23.48	NA	NA	NA	408.93		*
	432.41	9/19/2011	NE	24.20	NA	NA	NA	408.21		*
4Q11	432.41	10/5/2011	NE	24.59	NA	NA	NA	407.82		*
1Q12	432.41	1/3/2012	NE	26.88	NA	NA	NA	405.53		*
2Q12	432.41	4/2/2012	NE	28.33	NA	NA	NA	404.08		*
3Q12	432.41	7/3/2012	NE	28.39	NA	NA	NA	404.02		*
4Q12	432.41	10/2/2012	NE	30.51	NA	NA	NA	401.90		*
1Q13	432.41	1/7/2013	NE	30.22	NA	NA	NA	402.19		*
P-115										
2Q10	433.31	4/1/2010	NE	27.77	NA	NA	NA	405.54	401.01 - 381.01 (32.30 - 52.30)	*
3Q10	433.31	7/1/2010	NE	25.59	NA	NA	NA	407.72		*
4Q10	433.31	11/11/2010	NE	25.41	NA	NA	NA	407.90		*
1Q11	433.31	1/13/2011	NE	27.88	NA	NA	NA	405.43		*
2Q11	433.31	4/25/2011	NE	27.38	NA	NA	NA	405.93		*
3Q11	433.31	7/5/2011	NE	NM	NA	NA	NA	NA		Not Accessible
	433.31	9/19/2011	NE	25.10	NA	NA	NA	408.21		*
4Q11	433.31	10/6/2011	NE	25.67	NA	NA	NA	407.64		*
1Q12	433.31	1/3/2012	NE	27.86	NA	NA	NA	405.45		*
2Q12	433.31	4/2/2012	NE	29.30	NA	NA	NA	404.01		*
3Q12	433.31	7/3/2012	NE	29.35	NA	NA	NA	403.96		*
4Q12	433.31	10/2/2012	NE	31.51	NA	NA	NA	401.80		*
1Q13	433.31	1/7/2013	NE	32.60	NA	NA	NA	400.71		
P-116										
2Q10	436.45	4/1/2010	NE	31.05	NA	NA	NA	405.40	399.01 - 379.01 (37.44 - 57.44)	*
3Q10	436.45	7/1/2010	NE	28.82	NA	NA	NA	407.63		*
4Q10	436.45	11/11/2010	NE	28.76	NA	NA	NA	407.69		*
1Q11	436.45	1/13/2011	NE	31.35	NA	NA	NA	405.10		*
2Q11	436.45	4/25/2011	NE	30.76	NA	NA	NA	405.69		*
3Q11	436.45	7/5/2011	NE	27.41	NA	NA	NA	409.04		*
	436.45	9/19/2011	NE	28.52	NA	NA	NA	407.93		*
4Q11	436.45	10/5/2011	NE	28.96	NA	NA	NA	407.49		*
1Q12	436.45	1/3/2012	NE	31.35	NA	NA	NA	405.10		*
2Q12	436.45	4/2/2012	NE	32.72	NA	NA	NA	403.73		*
3Q12	436.45	7/3/2012	NE	32.80	NA	NA	NA	403.65		*
4Q12	436.45	10/2/2012	NE	34.97	NA	NA	NA	401.48		*
1Q13	436.45	1/7/2013	NE	36.10	NA	NA	NA	400.35		*
P-117										
2Q10	432.67	4/1/2010	NE	27.19	NA	NA	NA	405.48	399.74 - 379.74 (32.93 - 52.93)	*
3Q10	432.67	7/1/2010	NE	24.91	NA	NA	NA	407.76		*
4Q10	432.67	11/11/2010	NE	24.11	NA	NA	NA	408.56		*
1Q11	432.67	1/13/2011	NE	27.62	NA	NA	NA	405.05		*
2Q11	432.67	4/25/2011	NE	26.96	NA	NA	NA	405.71		*
3Q11	432.67	7/5/2011	NE	23.54	NA	NA	NA	409.13		*
	432.67	9/19/2011	NE	24.71	NA	NA	NA	407.96		*
4Q11	432.67	10/5/2011	NE	25.16	NA	NA	NA	407.51		*
1Q12	432.67	1/3/2012	NE	27.56	NA	NA	NA	405.11		*
2Q12	432.67	4/2/2012	NE	29.00	NA	NA	NA	403.67		*
3Q12	432.67	7/3/2012	NE	29.00	NA	NA	NA	403.67		*
4Q12	432.67	10/2/2012	NE	31.19	NA	NA	NA	401.48		*
1Q13	432.67	1/7/2013	NE	32.45	NA	NA	NA	400.22		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
P-118										
2Q10	431.32	4/1/2010	NE	25.81	NA	NA	NA	405.51	400.20 - 384.27 (31.12 - 47.05)	*
3Q10	431.32	7/1/2010	NE	23.27	NA	NA	NA	408.05		*
4Q10	431.32	10/1/2010	NE	23.80	NA	NA	NA	407.52		*
1Q11	431.32	1/13/2011	NE	26.95	NA	NA	NA	404.37		*
2Q11	431.32	4/1/2011	NE	25.75	NA	NA	NA	405.57		*
3Q11	431.32	7/5/2011	NE	22.11	NA	NA	NA	409.21		*
	431.32	9/19/2011	NE	23.78	NA	NA	NA	407.54		*
4Q11	431.32	10/5/2011	NE	34.28	NA	NA	NA	397.04		
1Q12	431.32	1/3/2012	NE	26.78	NA	NA	NA	404.54		*
2Q12	431.32	4/2/2012	NE	28.13	NA	NA	NA	403.19		*
3Q12	431.32	7/3/2012	NE	28.12	NA	NA	NA	403.20		*
4Q12	431.32	10/2/2012	NE	30.40	NA	NA	NA	400.92		*
1Q13	431.32	1/7/2013	NE	31.60	NA	NA	NA	399.72		
P-119										
2Q10	431.92	4/1/2010	NE	26.49	NA	NA	NA	405.43	401.25 - 385.32 (30.67 - 46.60)	*
3Q10	431.92	7/1/2010	NE	24.71	NA	NA	NA	407.21		*
4Q10	431.92	11/11/2010	NE	24.93	NA	NA	NA	406.99		*
1Q11	431.92	1/13/2011	NE	25.64	NA	NA	NA	406.28		*
2Q11	431.92	4/25/2011	NE	25.77	NA	NA	NA	406.15		*
3Q11	431.92	7/5/2011	NE	23.06	NA	NA	NA	408.86		*
	431.92	9/19/2011	NE	23.40	NA	NA	NA	408.52		*
4Q11	431.92	10/5/2011	NE	23.70	NA	NA	NA	408.22		*
1Q12	431.92	1/3/2012	NE	29.80	NA	NA	NA	402.12		*
2Q12	431.92	4/2/2012	NE	27.21	NA	NA	NA	404.71		*
3Q12	431.92	7/3/2012	NE	27.40	NA	NA	NA	404.52		*
4Q12	431.92	10/2/2012	NE	29.45	NA	NA	NA	402.47		*
1Q13	431.92	1/7/2013	NE	30.46	NA	NA	NA	401.46		*
P-120										
2Q10	432.78	4/1/2010	NE	26.60	NA	NA	NA	406.18	401.40 - 385.47 (31.38 - 47.31)	*
3Q10	432.78	7/1/2010	NE	24.53	NA	NA	NA	408.25		*
4Q10	432.78	10/1/2010	NE	24.13	NA	NA	NA	408.65		*
1Q11	432.78	1/13/2011	NE	26.14	NA	NA	NA	406.64		*
2Q11	432.78	4/1/2011	NE	25.82	NA	NA	NA	406.96		*
3Q11	432.78	7/5/2011	NE	22.85	NA	NA	NA	409.93		*
	432.78	9/19/2011	NE	23.82	NA	NA	NA	408.96		*
4Q11	432.78	10/5/2011	NE	24.15	NA	NA	NA	408.63		*
1Q12	432.78	1/3/2012	NE	26.22	NA	NA	NA	406.56		*
2Q12	432.78	4/4/2012	NE	27.58	NA	NA	NA	405.20		*
3Q12	432.78	7/3/2012	NE	27.84	NA	NA	NA	404.94		*
4Q12	432.78	10/2/2012	NE	29.90	NA	NA	NA	402.88		*
1Q13	432.78	1/7/2013	NE	31.00	NA	NA	NA	401.78		*
P-129										
2Q10	432.46	4/1/2010	NE	27.11	NA	NA	NA	405.35	400.49 - 384.56 (31.97 - 47.90)	*
3Q10	432.46	7/1/2010	NE	23.82	NA	NA	NA	408.64		*
4Q10	432.46	10/1/2010	NE	25.46	NA	NA	NA	407.00		*
1Q11	432.46	1/1/2011	NE	29.82	NA	NA	NA	402.64		*
2Q11	432.46	4/1/2011	NE	26.85	NA	NA	NA	405.61		*
3Q11	432.46	7/5/2011	NE	22.74	NA	NA	NA	409.72		*
4Q11	432.46	10/5/2011	NE	26.57	NA	NA	NA	405.89		*
1Q12	432.46	1/5/2012	NE	29.31	NA	NA	NA	403.15		*
2Q12	432.46	4/2/2012	NE	30.31	NA	NA	NA	402.15		*
3Q12	432.46	7/3/2012	NE	30.33	NA	NA	NA	402.13		*
4Q12	432.46	10/2/2012	NE	32.84	NA	NA	NA	399.62		
1Q13	432.46	1/7/2013	NE	34.12	NA	NA	NA	398.34		
GP-9-PZ										
4Q10	442.41	11/11/2010	NE	37.38	NA	NA	NA	405.03	404.81 - 394.81 (37.60 - 47.60)	*
1Q11	442.41	1/14/2011	NE	37.53	NA	NA	NA	404.88		*
2Q11	442.41	4/25/2011	NE	38.85	NA	NA	NA	403.56		
3Q11	442.41	7/5/2011	NE	NM	NA	NA	NA	NA		
	442.41	9/19/2011	NE	35.44	NA	NA	NA	406.97		*
4Q11	442.41	10/6/2011	NE	36.65	NA	NA	NA	405.76		*
1Q12	442.41	1/4/2012	NE	38.13	NA	NA	NA	404.28		
2Q12	442.41	4/3/2012	NE	39.51	NA	NA	NA	402.90		
3Q12	442.41	7/5/2012	NE	39.62	NA	NA	NA	402.79		
4Q12	442.41	10/2/2012	NE	41.32	NA	NA	NA	401.09		
1Q13	442.41	1/4/2013	NE	42.21	NA	NA	NA	400.20		
ROST-3-MW (ROST-3-PZ)										
4Q10	442.29	11/12/2010	NE	36.60	NA	NA	NA	405.69	402.29 - 392.29 (40.00 - 50.00)	*
1Q11	442.29	1/13/2011	NE	37.29	NA	NA	NA	405.00		*
2Q11	442.29	4/25/2011	NE	38.21	NA	NA	NA	404.08		*
3Q11	442.29	7/5/2011	NE	35.83	NA	NA	NA	406.46		*
	442.29	9/19/2011	NE	34.89	NA	NA	NA	407.40		*
4Q11	442.29	10/5/2011	NE	35.18	NA	NA	NA	407.11		*
1Q12	442.29	1/3/2012	NE	37.33	NA	NA	NA	404.96		*
2Q12	442.29	4/2/2012	NE	38.57	NA	NA	NA	403.72		*
3Q12	442.29	7/2/2012	NE	38.84	NA	NA	NA	403.45		*
4Q12	442.29	10/1/2012	NE	40.55	NA	NA	NA	401.74		
1Q13	442.29	1/2/2013	NE	41.50	NA	NA	NA	400.79	404.48 - 394.48 (38.18-48.18)	Replaced ROST-3-PZ during 4Q12 with 2" well

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
ROST-4-PZ										
4Q10	442.27	11/12/2010	NE	36.48	NA	NA	NA	405.79	Unknown	3/4" Piezometer
1Q11	442.27	1/13/2011	NE	36.97	NA	NA	NA	405.30		3/4" Piezometer
2Q11	442.13	4/25/2011	NE	37.69	NA	NA	NA	404.44	407.20 - 397.20 (34.93 - 44.93)	2" Well Installed
3Q11	442.13	7/5/2011	NE	35.85	NA	NA	NA	406.28		
1Q12	442.13	1/3/2012	NE	36.62	NA	NA	NA	405.51		
2Q12	442.13	4/2/2012	37.81	37.84	404.29	404.32	0.03	404.31		
3Q12	442.13	7/2/2012	NE	38.24	NA	NA	NA	403.89		
4Q12	442.13	10/1/2012	NE	39.52	NA	NA	NA	402.61		
1Q13	442.13	1/2/2013	NE	40.52	NA	NA	NA	401.61		
ROST-4-PZ(A)										
2Q11	442.11	4/25/2011	NE	37.18	NA	NA	NA	404.93	407.34 - 397.34 (34.77 - 44.77)	
3Q11	442.11	7/5/2011	NE	35.21	NA	NA	NA	406.90		
1Q12	442.11	1/3/2012	NE	35.92	NA	NA	NA	406.19		
2Q12	442.11	4/2/2012	NE	37.17	NA	NA	NA	404.94		
3Q12	442.11	7/2/2012	NE	38.64	NA	NA	NA	403.47		
4Q12	442.11	10/1/2012	NE	38.95	NA	NA	NA	403.16		
1Q13	442.11	1/2/2013	NE	40.60	NA	NA	NA	401.51		
ROST-4-PZ(B)										
2Q11	442.38	4/25/2011	NE	37.80	NA	NA	NA	404.58	407.33 - 397.33 (35.05 - 45.05)	
3Q11	442.38	7/5/2011	NE	35.93	NA	NA	NA	406.45		
1Q12	442.38	1/3/2012	NE	36.65	NA	NA	NA	405.73		
2Q12	442.38	4/2/2012	NE	37.87	NA	NA	NA	404.51		
3Q12	442.38	7/2/2012	NE	38.28	NA	NA	NA	404.10		
4Q12	442.38	10/1/2012	NE	39.62	NA	NA	NA	402.76		
1Q13	442.38	1/2/2013	NE	40.61	NA	NA	NA	401.77		
ROST-4-PZ(C)										
2Q11	442.66	4/25/2011	NE	38.52	NA	NA	NA	404.14	407.71 - 397.71 (34.95 - 44.95)	
3Q11	442.66	7/5/2011	NE	36.62	NA	NA	NA	406.04		
1Q12	442.66	1/3/2012	NE	37.40	NA	NA	NA	405.26		
2Q12	442.66	4/2/2012	NE	38.62	NA	NA	NA	404.04		
3Q12	442.66	7/2/2012	NE	39.09	NA	NA	NA	403.57		
4Q12	442.66	10/1/2012	NE	40.43	NA	NA	NA	402.23		
1Q13	442.66	1/2/2013	NE	41.42	NA	NA	NA	401.24		
ROST-4-PZ(D)										
2Q11	442.98	4/25/2011	NE	38.41	NA	NA	NA	404.57	408.01 - 398.01 (34.97 - 44.97)	
3Q11	442.98	7/5/2011	NE	36.58	NA	NA	NA	406.40		
1Q12	442.98	1/3/2012	37.23	37.68	405.30	405.75	0.45	405.66		
2Q12	442.98	4/2/2012	38.57	38.59	404.39	404.41	0.02	404.41		
3Q12	442.98	7/2/2012	NE	39.99	NA	NA	NA	402.99		sheen; lock not tight
4Q12	442.98	10/1/2012	NE	NE	NA	NA	NA	NA		Well dry; Integrity Suspect
1Q13	442.98	1/2/2013	NE	NE	NA	NA	NA	NA		Well dry
ROST-4-PZ(E)										
2Q11	441.96	4/25/2011	NE	37.63	NA	NA	NA	404.33	407.21 - 397.21 (34.75 - 44.75)	
3Q11	441.96	7/5/2011	NE	35.81	NA	NA	NA	406.15		
1Q12	441.96	1/3/2012	36.48	36.92	405.04	405.48	0.44	405.39		
2Q12	441.96	4/2/2012	37.72	38.11	403.85	404.24	0.39	404.16		
3Q12	441.96	7/2/2012	38.13	38.19	403.77	403.83	0.06	403.82		
4Q12	441.96	10/1/2012	39.28	39.31	402.65	402.68	0.03	402.67		
1Q13	441.96	1/2/2013	NE	40.02	NA	NA	NA	401.94		
ROST-4-PZ(F)										
2Q11	442.12	4/25/2011	NE	37.87	NA	NA	NA	404.25	407.59 - 397.59 (34.53 - 44.53)	
3Q11	442.12	7/5/2011	NE	35.99	NA	NA	NA	406.13		
1Q12	442.12	1/3/2012	NE	36.83	NA	NA	NA	405.29		
2Q12	442.12	4/2/2012	NE	37.96	NA	NA	NA	404.16		
3Q12	442.12	7/2/2012	NE	38.29	NA	NA	NA	403.83		
4Q12	442.12	10/1/2012	NE	39.46	NA	NA	NA	402.66		
1Q13	442.12	1/2/2013	NE	40.30	NA	NA	NA	401.82		
ROST-4-PZ(G)										
2Q11	442.13	4/25/2011	NE	38.08	NA	NA	NA	404.05	407.85 - 397.85 (34.28 - 44.28)	
3Q11	442.13	7/5/2011	NE	35.76	NA	NA	NA	406.37		
1Q12	442.13	1/3/2012	NE	37.44	NA	NA	NA	404.69		
2Q12	442.13	4/2/2012	NE	38.61	NA	NA	NA	403.52		
3Q12	442.13	7/2/2012	NE	38.79	NA	NA	NA	403.34		
4Q12	442.13	10/1/2012	NE	40.54	NA	NA	NA	401.59		
1Q13	442.13	1/2/2013	NE	41.49	NA	NA	NA	400.64		
ROST-5-PZ	***(PERCHED WELL)***									
4Q10	442.22	11/12/2010	NE	NE	NA	NA	NA	NA	429.02 - 419.02 (13.20 - 23.20)	Well Dry
1Q11	442.22	1/13/2011	NE	NE	NA	NA	NA	NA		Well Dry
2Q11	442.22	4/25/2011	NE	NE	NA	NA	NA	NA		Well Dry
3Q11	442.22	7/5/2011	NE	NE	NA	NA	NA	NA		Well Dry
	442.22	9/19/2011	NE	NE	NA	NA	NA	NA		Well Dry
4Q11	442.22	10/5/2011	NE	NE	NA	NA	NA	NA		Well Dry
1Q12	442.22	1/3/2012	NE	NE	NA	NA	NA	NA		Well Dry
2Q12	442.22	4/2/2012	NE	NE	NA	NA	NA	NA		Well Dry
3Q12	442.22	7/2/2012	NE	NE	NA	NA	NA	NA		Well Dry
4Q12	442.22	10/1/2012	NE	NE	NA	NA	NA	NA		Well Dry
1Q13	442.22	1/2/2013	NE	NE	NA	NA	NA	NA		Well Dry

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
ROST-7-PZ	***(PERCHED WELL)***									
4Q10	442.19	11/12/2010	NE	22.93	NA	NA	NA	419.26	422.19 - 412.19 (20.00 - 30.00)	
1Q11	442.19	1/13/2011	NE	23.74	NA	NA	NA	418.45		
2Q11	442.19	4/25/2011	NE	23.72	NA	NA	NA	418.47		
3Q11	442.19	7/5/2011	NE	22.05	NA	NA	NA	420.14		
	442.19	9/19/2011	NE	22.63	NA	NA	NA	419.56		
4Q11	442.19	10/5/2011	NE	22.52	NA	NA	NA	419.67		
1Q12	442.19	1/3/2012	NE	23.64	NA	NA	NA	418.55		
2Q12	442.19	4/2/2012	NE	24.08	NA	NA	NA	418.11		
3Q12	442.19	7/2/2012	NE	23.33	NA	NA	NA	418.86		
4Q12	442.19	10/1/2012	NE	23.86	NA	NA	NA	418.33		
1Q13	442.19	1/3/2013	NM	NM	NA	NA	NA	NA		Well inaccessible
ROST-10-PZ	***(PERCHED WELL)***									
4Q10	444.51	11/12/2010	NE	NE	NA	NA	NA	NA	434.51 - 424.51 (10.00 - 20.00)	Well Dry
1Q11	444.51	1/13/2011	NE	NE	NA	NA	NA	NA		Well Dry
2Q11	444.51	4/25/2011	NE	NE	NA	NA	NA	NA		Well Dry
3Q11	444.51	7/5/2011	NE	19.67	NA	NA	NA	424.84		
	444.51	9/19/2011	NE	19.88	NA	NA	NA	424.63		
4Q11	444.51	10/5/2011	NE	NE	NA	NA	NA	NA		Well Dry
1Q12	444.51	1/3/2012	NE	NE	NA	NA	NA	NA		Well Dry
2Q12	444.51	4/2/2012	NE	NE	NA	NA	NA	NA		Well Dry
3Q12	444.51	7/2/2012	NE	NE	NA	NA	NA	NA		Well Dry
4Q12	444.51	10/1/2012	NE	NE	NA	NA	NA	NA		Well Dry
1Q13	444.51	1/3/2013	NE	NE	NA	NA	NA	NA		Well Dry
ROST-21-PZ	***(PERCHED WELL)***									
4Q10	443.72	11/12/2010	NE	19.30	NA	NA	NA	424.42	433.72 - 423.72 (10.00 - 20.00)	
1Q11	443.72	1/13/2011	NE	19.59	NA	NA	NA	424.13		
2Q11	443.72	4/25/2011	NE	19.04	NA	NA	NA	424.68		
3Q11	443.72	7/5/2011	NE	18.37	NA	NA	NA	425.35		
	443.72	9/19/2011	NE	19.26	NA	NA	NA	424.46		
4Q11	443.72	10/5/2011	NE	NE	NA	NA	NA	NA		Well Dry
1Q12	443.72	1/3/2012	NE	19.81	NA	NA	NA	423.91		
2Q12	443.72	4/2/2012	NE	NE	NA	NA	NA	NA		Well Dry
3Q12	443.72	7/2/2012	NE	19.34	NA	NA	NA	424.38		
4Q12	443.72	10/1/2012	NE	NE	NA	NA	NA	NA		Well Dry
1Q13	443.72	1/3/2013	NE	NE	NA	NA	NA	NA		Well Dry
S-1										
2Q10	443.79	4/1/2010	39.38	44.32	399.47	404.41	4.94	403.42	Unknown	Product confirmed on interface probe.
3Q10	443.79	7/1/2010	38.27	43.29	400.50	405.52	5.02	404.52		Product confirmed on interface probe.
4Q10	443.79	11/11/2010	36.96	41.91	401.88	406.83	4.95	405.84		
1Q11	443.79	1/13/2011	36.41	41.33	402.46	407.38	4.92	406.40		
2Q11	443.79	4/25/2011	38.70	38.73	405.06	405.09	0.03	405.08		
3Q11	443.79	7/5/2011	36.50	36.54	407.25	407.29	0.04	407.28		
	443.79	9/19/2011	NE	36.42	NA	NA	NA	407.37		
4Q11	443.79	10/6/2011	NE	36.68	NA	NA	NA	407.11		
1Q12	443.79	1/3/2012	NE	38.36	NA	NA	NA	405.43		
2Q12	443.79	4/3/2012	NE	39.83	NA	NA	NA	403.96		
3Q12	443.79	7/3/2012	NE	40.38	NA	NA	NA	403.41		
4Q12	443.79	10/1/2012	NE	41.93	NA	NA	NA	401.86		
1Q13	443.79	1/4/2013	NE	43.35	NA	NA	NA	400.44		
T-1										
2Q10	444.55	4/1/2010	NE	45.51	NA	NA	NA	399.04	396.92 - 373.00 (47.63 - 71.55)	
3Q10	444.55	7/1/2010	NM	NM	NA	NA	NA	NA		Area flooded, unable to access.
4Q10	444.55	11/11/2010	NE	39.08	NA	NA	NA	406.32		*
1Q11	444.55	1/13/2011	NE	41.02	NA	NA	NA	403.53		*
2Q11	444.55	4/25/2011	NE	46.65	NA	NA	NA	397.90		
3Q11	444.55	7/5/2011	NE	35.99	NA	NA	NA	408.56		*
	444.55	9/19/2011	NE	51.50	NA	NA	NA	393.05		
4Q11	444.55	10/6/2011	NE	50.83	NA	NA	NA	393.72		
1Q12	445.40	1/3/2012	NE	NM	NA	NA	NA	NA	398.40 - 388.40 (43.91 - 53.91)	Well Could Not Be Opened
2Q12	445.40	4/2/2012	NE	40.09	NA	NA	NA	405.31		*
3Q12	445.40	7/2/2012	NE	41.19	NA	NA	NA	404.21		*
4Q12	445.40	10/1/2012	NE	42.90	NA	NA	NA	402.50		*
1Q13	445.40	1/3/2013	NE	44.17	NA	NA	NA	401.23		*
T-2										
2Q10	443.13	4/1/2010	NE	40.35	NA	NA	NA	402.78	392.63 - 372.48 (50.50 - 70.65)	*
3Q10	443.13	7/1/2010	NE	39.16	NA	NA	NA	403.97		*
4Q10	443.13	11/11/2010	NE	37.51	NA	NA	NA	405.62		*
1Q11	443.13	1/13/2011	NE	36.97	NA	NA	NA	406.16		*
2Q11	443.13	4/25/2011	NE	38.03	NA	NA	NA	405.10		*
3Q11	443.13	7/5/2011	NE	35.89	NA	NA	NA	407.24		*
	443.13	9/19/2011	NE	35.80	NA	NA	NA	407.33		*
4Q11	443.13	10/6/2011	NE	35.97	NA	NA	NA	407.16		*
1Q12	443.13	1/3/2012	NE	34.44	NA	NA	NA	408.69		*
2Q12	443.13	4/2/2012	NE	38.68	NA	NA	NA	404.45		*
3Q12	443.13	7/2/2012	NE	39.15	NA	NA	NA	403.98		*
4Q12	443.13	10/1/2012	NE	41.11	NA	NA	NA	402.02		*
1Q13	443.13	1/3/2013	NE	43.39	NA	NA	NA	399.74		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
T-3										
2Q10	450.91	4/1/2010	NE	48.84	NA	NA	NA	402.07	403.65 - 388.65 (47.26 - 62.26)	
3Q10	450.91	7/1/2010	NE	48.07	NA	NA	NA	402.84		
4Q10	450.91	10/1/2010	NE	45.66	NA	NA	NA	405.25		*
1Q11	450.91	1/13/2011	NE	44.64	NA	NA	NA	406.27		*
2Q11	450.91	4/1/2011	NE	46.50	NA	NA	NA	404.41		*
3Q11	450.91	7/5/2011	NE	43.85	NA	NA	NA	407.06		*
	450.91	9/19/2011	NE	44.60	NA	NA	NA	406.31		*
4Q11	450.91	10/6/2011	NE	45.68	NA	NA	NA	405.23		*
1Q12	450.91	1/4/2012	NE	45.83	NA	NA	NA	405.08		*
2Q12	450.91	4/2/2012	NE	47.09	NA	NA	NA	403.82		*
3Q12	450.91	7/2/2012	NE	48.00	NA	NA	NA	402.91		
4Q12	450.91	10/1/2012	NE	50.04	NA	NA	NA	400.87		
1Q13	450.91	1/4/2013	NE	51.55	NA	NA	NA	399.36		
T-4										
2Q10	447.95	4/1/2010	NE	46.44	NA	NA	NA	401.51	398.24 - 383.24 (49.71 - 64.71)	*
3Q10	447.95	7/1/2010	NE	45.22	NA	NA	NA	402.73		*
4Q10	447.95	10/1/2010	NE	42.99	NA	NA	NA	404.96		*
1Q11	447.95	1/13/2011	NE	41.38	NA	NA	NA	406.57		*
2Q11	447.95	4/1/2011	NE	42.23	NA	NA	NA	405.72		*
3Q11	447.95	7/5/2011	NE	39.83	NA	NA	NA	408.12		*
	447.95	9/19/2011	NE	41.97	NA	NA	NA	405.98		*
4Q11	447.95	10/6/2011	NE	42.04	NA	NA	NA	405.91		*
1Q12	447.95	1/3/2012	NE	43.35	NA	NA	NA	404.60		*
2Q12	447.95	4/3/2012	NE	45.47	NA	NA	NA	402.48		*
3Q12	447.95	7/3/2012	NE	46.57	NA	NA	NA	401.38		*
4Q12	447.95	10/1/2012	NE	46.78	NA	NA	NA	401.17		*
1Q13	447.95	1/4/2013	NE	48.60	NA	NA	NA	399.35		*
T-5										
2Q10	443.46	4/1/2010	NE	39.28	NA	NA	NA	404.18	395.13 - 378.58 (48.33 - 64.88)	*
3Q10	443.46	7/1/2010	NM	NM	NA	NA	NA	NA		Tank yard flooded, unable to access.
4Q10	443.46	10/1/2010	NE	36.59	NA	NA	NA	406.87		*
1Q11	443.46	1/1/2011	NE	36.09	NA	NA	NA	407.37		*
2Q11	443.46	4/1/2011	NE	37.30	NA	NA	NA	406.16		*
3Q11	443.46	7/5/2011	NE	35.28	NA	NA	NA	408.18		*
4Q11	443.46	10/6/2011	NE	35.84	NA	NA	NA	407.62		*
1Q12	443.46	1/3/2012	NE	37.31	NA	NA	NA	406.15		*
2Q12	443.46	4/3/2012	NE	38.87	NA	NA	NA	404.59		*
3Q12	443.46	7/6/2012	NE	39.81	NA	NA	NA	403.65		*
4Q12	443.46	10/1/2012	NE	41.08	NA	NA	NA	402.38		*
1Q13	443.46	1/4/2013	NE	42.57	NA	NA	NA	400.89		*
T-6										
2Q10	446.55	4/1/2010	NE	42.83	NA	NA	NA	403.72	394.79 - 380.54 (51.76 - 66.01)	*
3Q10	446.55	7/1/2010	NE	41.74	NA	NA	NA	404.81		*
4Q10	446.55	11/12/2010	NE	40.77	NA	NA	NA	405.78		*
1Q11	446.55	1/13/2011	NE	41.07	NA	NA	NA	405.48		*
2Q11	446.55	4/25/2011	NE	42.01	NA	NA	NA	404.54		*
3Q11	446.55	7/5/2011	NE	39.58	NA	NA	NA	406.97		*
	446.55	9/19/2011	NE	38.95	NA	NA	NA	407.60		*
4Q11	446.55	10/6/2011	NE	39.26	NA	NA	NA	407.29		*
1Q12	446.55	1/4/2012	NE	41.46	NA	NA	NA	405.09		*
2Q12	446.55	4/3/2012	NE	42.88	NA	NA	NA	403.67		*
3Q12	446.55	7/5/2012	NE	43.06	NA	NA	NA	403.49		*
4Q12	446.55	10/2/2012	NE	44.86	NA	NA	NA	401.69		*
1Q13	446.55	1/4/2013	NE	45.84	NA	NA	NA	400.71		*
T-7										
2Q10	444.01	4/1/2010	38.74	38.89	405.12	405.27	0.15	405.24	395.29 - 380.29 (48.72 - 63.72)	*Product confirmed on interface probe.
3Q10	444.01	7/1/2010	37.21	37.37	406.64	406.80	0.16	406.77		*Product confirmed on interface probe.
4Q10	444.01	10/1/2010	36.24	36.40	407.61	407.77	0.16	407.74		*Product confirmed on interface probe.
1Q11	444.01	1/13/2011	36.74	36.87	407.14	407.27	0.13	407.24		*
2Q11	444.01	4/1/2011	37.20	37.25	406.76	406.81	0.05	406.80		*
3Q11	444.01	7/5/2011	35.08	35.16	408.85	408.93	0.08	408.91		*
	444.01	9/19/2011	35.14	35.19	408.82	408.87	0.05	408.86		*
4Q11	444.01	10/5/2011	35.36	35.43	408.58	408.65	0.07	408.64		*
1Q12	444.01	1/4/2012	37.05	37.08	406.93	406.96	0.03	406.95		*
2Q12	444.01	4/3/2012	38.45	38.45	405.56	405.56	0.00	405.56		*
3Q12	444.01	7/2/2012	38.90	38.96	405.05	405.11	0.06	405.10		*
4Q12	444.01	10/2/2012	40.80	40.83	403.18	403.21	0.03	403.20		*
1Q13	444.01	1/2/2013	41.66	41.67	402.34	402.35	0.01	402.35		*
T-12										
2Q10	444.69	4/1/2010	NE	41.59	NA	NA	NA	403.10	398.23 - 372.23 (46.46 - 72.46)	*
3Q10	444.69	7/1/2010	NE	41.21	NA	NA	NA	403.48		*
4Q10	444.69	11/12/2010	NE	40.35	NA	NA	NA	404.34		*
1Q11	444.69	1/13/2011	NE	40.30	NA	NA	NA	404.39		*
2Q11	444.69	4/25/2011	NE	41.40	NA	NA	NA	403.29		*
3Q11	444.69	7/5/2011	NE	39.07	NA	NA	NA	405.62		*
	444.69	9/19/2011	NE	38.06	NA	NA	NA	406.63		*
4Q11	444.69	10/6/2011	NE	38.23	NA	NA	NA	406.46		*
1Q12	444.69	1/4/2012	NE	40.64	NA	NA	NA	404.05		*
2Q12	444.69	4/3/2012	NE	42.06	NA	NA	NA	402.63		*
3Q12	444.69	7/5/2012	NE	42.05	NA	NA	NA	402.64		*
4Q12	444.69	10/2/2012	NE	43.86	NA	NA	NA	400.83		*
1Q13	444.69	1/4/2013	NE	44.65	NA	NA	NA	400.04		*

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
T-13										
2Q10	443.46	4/1/2010	NE	40.02	NA	NA	NA	403.44	396.46 - 370.46 (47.00 - 73.00)	*
3Q10	443.46	7/1/2010	NE	38.72	NA	NA	NA	404.74		*
4Q10	443.46	11/11/2010	NE	37.37	NA	NA	NA	406.09		*
1Q11	443.46	1/13/2011	NE	37.57	NA	NA	NA	405.89		*
2Q11	443.46	4/25/2011	NE	38.25	NA	NA	NA	405.21		*
3Q11	443.46	7/5/2011	NE	NM	NA	NA	NA	NA		
	443.46	9/19/2011	NE	37.54	NA	NA	NA	405.92		*
4Q11	443.46	10/5/2011	NE	35.78	NA	NA	NA	407.68		*
1Q12	443.46	1/3/2012	NE	37.42	NA	NA	NA	406.04		*
2Q12	443.46	4/2/2012	NE	38.69	NA	NA	NA	404.77		*
3Q12	443.46	7/2/2012	NE	39.09	NA	NA	NA	404.37		*
4Q12	443.46	10/2/2012	NE	40.81	NA	NA	NA	402.65		*
1Q13	443.46	1/2/2013	NE	41.96	NA	NA	NA	401.50		*
T-15										
2Q10	445.03	4/1/2010	NE	42.39	NA	NA	NA	402.64	396.99 - 370.99 (48.04 - 74.04)	*
3Q10	445.03	7/1/2010	NE	41.07	NA	NA	NA	403.96		*
4Q10	445.03	10/1/2010	NE	39.31	NA	NA	NA	405.72		*
1Q11	445.03	1/13/2011	NE	38.39	NA	NA	NA	406.64		*
2Q11	445.03	4/1/2011	NE	39.55	NA	NA	NA	405.48		*
3Q11	445.03	7/5/2011	NE	37.35	NA	NA	NA	407.68		*
	445.03	9/19/2011	NE	37.59	NA	NA	NA	407.44		*
4Q11	445.03	10/6/2011	NE	37.79	NA	NA	NA	407.24		*
1Q12	445.03	1/3/2012	NE	38.97	NA	NA	NA	406.06		*
2Q12	445.03	4/2/2012	NE	40.28	NA	NA	NA	404.75		*
3Q12	445.03	7/2/2012	NE	40.90	NA	NA	NA	404.13		*
4Q12	445.03	10/1/2012	NE	42.81	NA	NA	NA	402.22		*
1Q13	445.03	1/3/2013	NE	44.24	NA	NA	NA	400.79		*
T-17										
2Q10	445.90	4/1/2010	NE	41.12	NA	NA	NA	404.78	401.80 - 375.80 (44.10 - 70.10)	*
3Q10	445.90	7/1/2010	NE	39.60	NA	NA	NA	406.30		*
4Q10	445.90	10/1/2010	NE	38.11	NA	NA	NA	407.79		*
1Q11	445.90	1/13/2011	NE	37.11	NA	NA	NA	408.79		*
2Q11	445.90	4/1/2011	NE	37.30	NA	NA	NA	408.60		*
3Q11	445.90	7/5/2011	NE	35.17	NA	NA	NA	410.73		*
	445.90	9/19/2011	NE	35.90	NA	NA	NA	410.00		*
4Q11	445.90	10/6/2011	NE	36.23	NA	NA	NA	409.67		*
1Q12	445.90	1/3/2012	NE	37.37	NA	NA	NA	408.53		*
2Q12	445.90	4/2/2012	NE	38.79	NA	NA	NA	407.11		*
3Q12	445.90	7/2/2012	NE	39.29	NA	NA	NA	406.61		*
4Q12	445.90	10/1/2012	NE	40.92	NA	NA	NA	404.98		*
1Q13	445.90	1/3/2013	NE	42.70	NA	NA	NA	403.20		*
T-19										
2Q10	446.71	4/1/2010	44.64	46.11	400.60	402.07	1.47	401.78	395.94 - 369.94 (50.77 - 76.77)	*Product confirmed on interface probe.
3Q10	446.71	7/1/2010	43.47	44.91	401.80	403.24	1.44	402.95		*Product confirmed on interface probe.
4Q10	446.71	10/1/2010	41.39	42.73	403.98	405.32	1.34	405.05		*Product confirmed on interface probe.
1Q11	446.71	1/13/2011	39.78	41.15	405.56	406.93	1.37	406.66		*
2Q11	446.71	4/1/2011	40.88	40.90	405.81	405.83	0.02	405.83		*
3Q11	446.71	7/5/2011	38.47	38.50	408.21	408.24	0.03	408.23		*
	446.71	9/19/2011	40.60	40.64	406.07	406.11	0.04	406.10		*
4Q11	446.71	10/6/2011	40.65	40.69	406.02	406.06	0.04	406.05		*
1Q12	446.71	1/3/2012	41.97	41.98	404.73	404.74	0.01	404.74		*
2Q12	446.71	4/3/2012	NE	44.09	NA	NA	NA	402.62		*
3Q12	446.71	7/3/2012	NE	45.36	NA	NA	NA	401.35		*
4Q12	446.71	10/1/2012	NE	45.41	NA	NA	NA	401.30		*
1Q13	446.71	1/4/2013	NE	47.44	NA	NA	NA	399.27		*
T-21										
2Q10	444.00	4/1/2010	NE	32.11	NA	NA	NA	411.89	412.04 - 386.04 (31.96 - 57.96)	
3Q10	444.00	7/1/2010	NE	30.79	NA	NA	NA	413.21		*
4Q10	444.00	10/1/2010	NE	29.65	NA	NA	NA	414.35		*
1Q11	444.00	1/13/2011	NE	29.96	NA	NA	NA	414.04		*
2Q11	444.00	4/1/2011	NE	29.83	NA	NA	NA	414.17		*
3Q11	444.00	7/5/2011	NE	28.17	NA	NA	NA	415.83		*
	444.00	9/19/2011	NE	28.24	NA	NA	NA	415.76		*
4Q11	444.00	10/5/2011	NE	28.41	NA	NA	NA	415.59		*
1Q12	444.00	1/4/2012	NE	29.56	NA	NA	NA	414.44		*
2Q12	444.00	4/3/2012	NE	30.65	NA	NA	NA	413.35		*
3Q12	444.00	7/2/2012	NE	31.14	NA	NA	NA	412.86		*
4Q12	444.00	10/2/2012	NE	32.62	NA	NA	NA	411.38		
1Q13	444.00	1/2/2013	NE	33.96	NA	NA	NA	410.04		
T-22										
2Q10	442.21	4/1/2010	NE	32.69	NA	NA	NA	409.52	410.66 - 384.96 (31.55 - 57.25)	
3Q10	442.21	7/1/2010	NE	31.11	NA	NA	NA	411.10		*
4Q10	442.21	10/1/2010	NE	30.12	NA	NA	NA	412.09		*
1Q11	442.21	1/13/2011	NE	31.04	NA	NA	NA	411.17		*
2Q11	442.21	4/1/2011	NE	30.96	NA	NA	NA	411.25		*
3Q11	442.21	7/5/2011	NE	29.00	NA	NA	NA	413.21		*
	442.21	9/19/2011	NE	29.26	NA	NA	NA	412.95		*
4Q11	442.21	10/5/2011	NE	29.51	NA	NA	NA	412.70		*
1Q12	442.21	1/4/2012	NE	30.91	NA	NA	NA	411.30		*
2Q12	442.21	4/3/2012	NE	32.34	NA	NA	NA	409.87		
3Q12	442.21	7/2/2012	NE	32.81	NA	NA	NA	409.40		
4Q12	442.21	10/2/2012	NE	34.45	NA	NA	NA	407.76		
1Q13	442.21	1/2/2013	NE	35.62	NA	NA	NA	406.59		

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
T-23										
2Q10	432.64	4/1/2010	NE	25.00	NA	NA	NA	407.64	405.41 - 379.41 (27.23 - 53.23)	*
3Q10	432.64	7/1/2010	NE	23.35	NA	NA	NA	409.29		*
4Q10	432.64	10/1/2010	NE	22.41	NA	NA	NA	410.23		*
1Q11	432.64	1/13/2011	NE	23.83	NA	NA	NA	408.81		*
2Q11	432.64	4/1/2011	NE	23.40	NA	NA	NA	409.24		*
3Q11	432.64	7/5/2011	NE	21.22	NA	NA	NA	411.42		*
	432.64	9/19/2011	NE	27.83	NA	NA	NA	404.81		
4Q11	432.64	10/5/2011	NE	22.21	NA	NA	NA	410.43		*
1Q12	432.64	1/3/2012	NE	23.75	NA	NA	NA	408.89		*
2Q12	432.64	4/2/2012	NE	25.10	NA	NA	NA	407.54		*
3Q12	432.64	7/2/2012	NE	25.60	NA	NA	NA	407.04		*
4Q12	432.64	10/2/2012	NE	27.37	NA	NA	NA	405.27		
1Q13	432.64	1/3/2013	NE	28.35	NA	NA	NA	404.29		
T-24										
2Q10	443.72	4/1/2010	41.25	41.55	402.17	402.47	0.30	402.41	402.22 - 376.57 (41.50 - 67.15)	*Product confirmed on interface probe.
3Q10	443.72	7/1/2010	40.36	40.68	403.04	403.36	0.32	403.29		*Product confirmed on interface probe.
4Q10	443.72	11/11/2010	39.07	39.38	404.34	404.65	0.31	404.59		*
1Q11	443.72	1/13/2011	38.60	38.92	404.80	405.12	0.32	405.05		*
2Q11	443.72	4/25/2011	NE	39.98	NA	NA	NA	403.74		*
3Q11	443.72	7/5/2011	NE	37.53	NA	NA	NA	406.19		*
	443.72	9/19/2011	NE	35.08	NA	NA	NA	408.64		*
4Q11	443.72	10/6/2011	NE	37.29	NA	NA	NA	406.43		*
1Q12	443.72	1/3/2012	NE	38.36	NA	NA	NA	405.36		*
2Q12	443.72	4/3/2012	NE	40.56	NA	NA	NA	403.16		*
3Q12	443.72	7/3/2012	NE	40.45	NA	NA	NA	403.27		*
4Q12	443.72	10/1/2012	42.02	44.87	398.85	401.70	2.85	401.13		
1Q13	443.72	1/7/2013	43.10	45.60	398.12	400.62	2.50	400.12		
T-28										
2Q10	444.22	4/1/2010	NE	40.94	NA	NA	NA	403.28	Unknown	
3Q10	444.22	7/1/2010	NM	NM	NA	NA	NA	NA		Area regraded; equipment staging yard; unable to locate.
4Q10	444.22	10/1/2010	NE	37.65	NA	NA	NA	406.57		
1Q11	444.22	1/13/2011	NE	36.53	NA	NA	NA	407.69		
2Q11	444.22	4/1/2011	NE	37.18	NA	NA	NA	407.04		
3Q11	444.22	7/5/2011	NE	34.89	NA	NA	NA	409.33		
	444.22	9/19/2011	NE	35.75	NA	NA	NA	408.47		
4Q11	444.22	10/6/2011	NE	35.98	NA	NA	NA	408.24		
1Q12	444.22	1/3/2012	NE	36.98	NA	NA	NA	407.24		
2Q12	444.22	4/2/2012	NE	38.68	NA	NA	NA	405.54		
3Q12	444.22	7/2/2012	NE	39.28	NA	NA	NA	404.94		*
4Q12	444.22	10/1/2012	NE	40.88	NA	NA	NA	403.34		*
1Q13	444.22	1/3/2013	NE	42.56	NA	NA	NA	401.66		*
T-38										
2Q10	445.62	4/1/2010	NE	38.35	NA	NA	NA	407.27	396.481 - 376.481 (49.14 - 69.14)	*
3Q10	445.62	7/1/2010	NE	37.00	NA	NA	NA	408.62		*
4Q10	445.62	10/1/2010	NE	35.45	NA	NA	NA	410.17		*
1Q11	445.62	1/1/2011	NE	35.38	NA	NA	NA	410.24		*
3Q11	445.62	7/5/2011	NE	NM	NA	NA	NA	NA		
4Q11	445.62	10/6/2011	NE	34.38	NA	NA	NA	411.24		*
1Q12	445.62	1/3/2012	NE	35.40	NA	NA	NA	410.22		*
2Q12	445.62	4/2/2012	NE	36.25	NA	NA	NA	409.37		*
3Q12	445.62	7/3/2012	NE	37.00	NA	NA	NA	408.62		*
4Q12	445.62	10/1/2012	NE	38.61	NA	NA	NA	407.01		*
1Q13	445.62	1/3/2013	NE	40.06	NA	NA	NA	405.56		*
T-62										
2Q10	431.73	4/1/2010	NE	25.98	NA	NA	NA	405.75	412.02 - 382.02 (19.71 - 49.71)	
3Q10	431.73	7/1/2010	NE	23.99	NA	NA	NA	407.74		
4Q10	431.73	11/11/2010	NE	23.49	NA	NA	NA	408.24		
1Q11	431.73	1/13/2011	NE	25.48	NA	NA	NA	406.25		
2Q11	431.73	4/25/2011	NE	25.33	NA	NA	NA	406.40		
3Q11	431.73	7/5/2011	NE	22.37	NA	NA	NA	409.36		
	431.73	9/19/2011	NE	23.12	NA	NA	NA	408.61		
4Q11	431.73	10/5/2011	NE	23.46	NA	NA	NA	408.27		
1Q12	431.73	1/3/2012	NE	25.62	NA	NA	NA	406.11		
2Q12	431.73	4/2/2012	NE	27.08	NA	NA	NA	404.65		
3Q12	431.73	7/3/2012	NE	27.20	NA	NA	NA	404.53		
4Q12	431.73	10/2/2012	NE	29.28	NA	NA	NA	402.45		
1Q13	431.73	1/7/2013	NE	30.39	NA	NA	NA	401.34		
T-63										
2Q10	431.24	4/1/2010	NE	25.42	NA	NA	NA	405.82	411.26 - 381.26 (19.98 - 49.98)	
3Q10	431.24	7/1/2010	NE	23.23	NA	NA	NA	408.01		
4Q10	431.24	11/11/2010	NE	23.03	NA	NA	NA	408.21		
1Q11	431.24	1/13/2011	NE	25.45	NA	NA	NA	405.79		
2Q11	431.24	4/25/2011	NE	NM	NA	NA	NA	NA		Unable to open.
3Q11	431.24	7/5/2011	NE	NM	NA	NA	NA	NA		
	431.24	9/19/2011	NE	22.88	NA	NA	NA	408.36		
4Q11	431.24	10/5/2011	NE	23.28	NA	NA	NA	407.96		
1Q12	431.24	1/3/2012	NE	25.60	NA	NA	NA	405.64		
2Q12	431.24	4/2/2012	NE	NM	NA	NA	NA	NA		
3Q12	431.24	7/3/2012	NE	27.08	NA	NA	NA	404.16		
4Q12	431.24	10/2/2012	NE	29.19	NA	NA	NA	402.05		
1Q13	431.24	1/7/2013	NE	30.45	NA	NA	NA	400.79		

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
CUMULATIVE GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.[1])	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER-PRODUCT INTERFACE (elev.[1])	PRODUCT (elev.[1])	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL[2] (elev.[1])	SCREENED INTERVAL (elev.[1]) (ft btoc)	COMMENTS
T-64										
2Q10	428.80	4/1/2010	NE	22.91	NA	NA	NA	405.89	408.99 - 378.99 (19.81 - 49.81)	
3Q10	428.80	7/1/2010	NE	20.46	NA	NA	NA	408.34		
4Q10	428.80	11/11/2010	NE	20.76	NA	NA	NA	408.04		
1Q11	428.80	1/13/2011	NE	23.84	NA	NA	NA	404.96		
3Q11	428.80	7/5/2011	NE	19.06	NA	NA	NA	409.74		*
	428.80	9/19/2011	NE	21.86	NA	NA	NA	406.94		
4Q11	428.80	10/5/2011	NE	21.36	NA	NA	NA	407.44		
1Q12	428.80	1/3/2012	NE	23.86	NA	NA	NA	404.94		
2Q12	428.80	4/2/2012	NE	25.10	NA	NA	NA	403.70		
3Q12	428.80	7/3/2012	NE	25.24	NA	NA	NA	403.56		
4Q12	428.80	10/2/2012	NE	27.44	NA	NA	NA	401.36		
1Q13	428.80	1/7/2013	NE	28.89	NA	NA	NA	399.91		
PZ-1-101										
4Q11	445.52	10/5/2011	NE	37.83	NA	NA	NA	407.69	354.52 - 344.52 (91.00 - 101.00)	*
1Q12	445.52	1/3/2012	NE	39.73	NA	NA	NA	405.79		*
2Q12	445.52	4/4/2012	NE	41.14	NA	NA	NA	404.38		*
3Q12	445.52	7/2/2012	NE	41.28	NA	NA	NA	404.24		*
4Q12	445.52	10/1/2012	NE	42.95	NA	NA	NA	402.57		*
1Q13	445.52	1/3/2013	NE	44.21	NA	NA	NA	401.31		*
PZ-1-85										
4Q11	445.50	10/5/2011	NE	37.85	NA	NA	NA	407.65	369.70 - 359.70 (75.80 - 85.80)	*
1Q12	445.50	1/3/2012	NE	39.80	NA	NA	NA	405.70		*
2Q12	445.50	4/4/2012	NE	41.05	NA	NA	NA	404.45		*
3Q12	445.50	7/2/2012	NE	41.35	NA	NA	NA	404.15		*
4Q12	445.50	10/1/2012	NE	43.06	NA	NA	NA	402.44		*
1Q13	445.50	1/3/2013	NE	44.35	NA	NA	NA	401.15		*
PZ-2-70.5										
4Q11	443.15	10/5/2011	NE	35.74	NA	NA	NA	407.41	382.65 - 372.65 (60.50 - 70.50)	*
1Q12	443.15	1/3/2012	NE	38.14	NA	NA	NA	405.01		*
2Q12	443.15	4/4/2012	NE	39.43	NA	NA	NA	403.72		*
3Q12	443.15	7/2/2012	NE	39.57	NA	NA	NA	403.58		*
4Q12	443.15	10/1/2012	NE	41.32	NA	NA	NA	401.83		*
1Q13	443.15	1/3/2013	NE	42.40	NA	NA	NA	400.75		*
PZ-2-84										
4Q11	443.12	10/5/2011	NE	35.71	NA	NA	NA	407.41	371.12 - 359.12 (72.00 - 84.00)	*
1Q12	443.12	1/3/2012	NE	38.05	NA	NA	NA	405.07		*
2Q12	443.12	4/4/2012	NE	39.37	NA	NA	NA	403.75		*
3Q12	443.12	7/2/2012	NE	39.48	NA	NA	NA	403.64		*
4Q12	443.12	10/1/2012	NE	41.21	NA	NA	NA	401.91		*
1Q13	443.12	1/3/2013	NE	42.32	NA	NA	NA	400.80		*

NOTES:
1) Elevations presented in this table are relative to the 1988 USGS datum.
2) The Corrected W.L. Elevations presented in this table were corrected by a specific gravity of 0.80 for the wells in which LNAPL was identified.
3) NA = Not Applicable; NE = Not Encountered; NM = Not Measured
4) * Indicates that the LNAPL and/or water level is above the top of the screened zone of the well.
5) Table includes comprehensive groundwater monitoring well gauging data from the combined Village of Roxana Interim Groundwater Monitoring Program and the WRB Refining LP Wood River Refinery Program.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a

CUMMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-01							
4Q10	8.04	20.53	1.449	3.90	8.99	93.0	
1Q11	6.76	5.93	1.189	1.00	0.08	102.0	
2Q11	6.69	27.11	1.459	138.10	1.03	157.0	
3Q11	6.68	30.81	*	*	0.08	0.03	
4Q11	6.62	16.52	1.021	7.70	0.00	0.02	
1Q12	6.64	18.37	1.180	13.32	0.00	0.02	
2Q12	6.61	19.00	2.194	3.02	0.00	41.0	
3Q12	6.65	20.03	0.997	2.01	0.09	29.0	
4Q12	6.63	18.38	3.346	5.10	0.00	47.0	Initial Sample
	7.64	17.47	1.226	6.88	0.00	-12.0	Laboratory Error. Re-sample for VOCs
1Q13	6.73	18.14	2.192	8.16	0.20	-0.02	
MW-02							
4Q10	7.24	18.38	1.066	41.00	8.90	-113.0	
1Q11	6.72	15.19	2.048	8.00	0.97	-69.0	
2Q11	6.75	20.82	1.313	168.50	0.09	-69.0	
3Q11	6.76	25.10	*	2.10	0.00	-0.28	
4Q11	6.67	17.71	1.126	29.40	0.00	-0.08	
1Q12	6.55	18.13	1.165	45.20	0.00	-1.00	
2Q12	6.61	19.70	2.462	41.55	0.00	-60.0	
3Q12	6.66	20.80	1.082	4.01	0.00	-26.0	
4Q12	6.61	18.86	3.887	6.41	0.00	-37.0	
1Q13	6.67	18.53	2.027	12.39	0.05	-0.11	
MW-03							
4Q10	6.88	21.59	1.157	6.50	0.32	-146.0	
1Q11	6.88	22.83	2.349	2.00	0.26	-89.0	
2Q11	6.91	23.40	1.268	54.00	0.00	-74.0	
3Q11	7.15	34.21	1.280	0.00	0.00	195.0	
4Q11	6.75	17.94	1.151	0.89	0.07	-0.11	
1Q12	6.83	18.95	1.370	5.89	0.06	-0.09	
2Q12	6.72	19.61	2.219	2.26	0.00	-79.0	
3Q12	6.63	20.63	1.255	1.18	0.03	-67.0	
4Q12	6.80	20.10	2.205	1.81	0.00	-61.0	
1Q13	6.88	19.17	1.333	2.67	0.01	-243.0	
MW-04							
4Q10	6.76	19.51	0.854	7.70	4.88	-59.0	
1Q11	6.83	10.24	2.352	9.60	0.86	-51.0	
2Q11	6.73	24.20	1.106	7.30	0.15	-57.0	
3Q11	6.60	38.84	*	6.10	0.00	-0.01	
4Q11	6.89	19.04	1.111	13.20	0.00	-0.07	
1Q12	6.81	18.62	0.955	3.40	0.00	-0.08	
2Q12	6.74	20.35	2.417	9.39	0.00	-58.0	
3Q12	6.60	19.94	1.137	9.69	0.00	-82.0	
4Q12	6.78	19.13	3.319	8.68	0.00	-66.0	
1Q13	6.83	18.75	2.516	25.45	0.21	-113.0	Initial Sample
	7.76	18.37	1.296	6.07	0.04	-108.0	Confirmation sample
MW-05							
4Q10	6.77	19.39	0.801	2.90	0.17	-112.0	
1Q11	6.82	19.51	2.051	2.80	0.95	-66.0	
2Q11	6.78	22.82	4.743	41.00	0.18	-68.0	
3Q11	6.88	25.11	*	9.80	0.00	0.29	
4Q11	6.70	17.87	0.956	10.03	0.02	-0.09	
1Q12	6.71	17.90	0.987	6.60	0.00	-13.0	
2Q12	6.68	19.74	1.956	4.57	0.00	-50.0	
3Q12	6.78	22.92	0.856	8.64	0.00	-120.0	
4Q12	6.79	18.67	2.428	8.72	0.00	-67.0	
1Q13	6.83	19.18	1.925	11.85	0.04	-124.0	
MW-06A							
4Q10	6.74	21.87	1.535	5.40	0.01	-127.0	
1Q11	6.80	10.99	2.274	7.40	0.34	-75.0	
2Q11	6.72	17.98	1.049	8.20	0.07	-61.0	
3Q11	6.82	30.26	*	6.40	0.06	0.19	
4Q11	6.73	18.39	1.319	7.97	0.01	-0.10	
1Q12	6.64	17.62	1.295	6.30	0.00	-0.07	
2Q12	6.52	20.09	2.045	6.24	0.00	-55.0	
3Q12	6.56	20.14	1.098	1.46	0.00	-37.0	
4Q12	6.65	19.52	1.965	8.32	0.00	-57.0	
1Q13	7.00	20.21	0.690	20.50	0.02	-132.0	

TABLE 2a
CUMMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-06B							
4Q10	6.80	17.14	1.113	17.50	0.14	-77.0	
1Q11	6.73	15.90	2.138	1.40	0.22	-46.0	
2Q11	6.76	19.87	0.630	2.10	0.17	-54.0	
3Q11	6.85	25.55	*	20.50	0.00	0.44	
4Q11	6.86	18.30	1.059	1.35	0.11	-0.06	
1Q12	6.90	17.13	1.080	10.59	0.00	-0.06	
2Q12	6.80	19.60	2.251	3.07	0.00	-35.0	
3Q12	6.80	20.81	1.437	5.88	0.00	-42.0	
4Q12	6.89	19.49	2.344	7.40	0.00	-34.0	
1Q13	6.82	18.11	1.127	7.34	0.00	-79.0	
MW-06C							
4Q10	6.86	17.87	1.132	5.50	0.16	-104.0	
1Q11	6.87	13.90	0.981	4.20	0.13	-66.0	
2Q11	6.84	18.93	0.713	2.10	0.43	-72.0	
3Q11	*	26.07	*	0.80	0.00	0.02	
4Q11	6.90	18.08	1.095	7.00	0.07	-0.08	
1Q12	6.93	17.04	1.127	4.02	0.00	-0.08	
2Q12	6.87	19.09	1.921	1.71	0.00	-68.0	
3Q12	6.92	20.05	1.036	2.16	0.00	-55.0	
4Q12	6.94	19.04	2.426	0.51	0.00	-63.0	
1Q13	6.94	17.60	0.828	6.48	0.01	-103.0	
MW-06D							
4Q10	6.94	17.42	1.342	5.90	0.05	-112.0	
1Q11	7.05	13.66	1.330	1.30	0.14	-74.0	
2Q11	6.86	18.82	0.614	13.20	0.09	-61.0	
3Q11	7.04	28.06	*	*	0.00	0.31	
4Q11	6.99	17.79	1.240	1.25	0.00	-107.0	
1Q12	6.94	16.69	1.192	5.48	0.02	-0.08	
2Q12	6.96	19.50	2.368	7.17	0.00	-77.0	
3Q12	6.43	20.56	1.030	1.05	0.04	-41.0	
4Q12	7.03	19.07	2.753	5.16	0.00	-61.0	
1Q13	7.07	17.15	0.929	6.69	0.00	-116.0	
MW-07							
4Q10	6.48	17.80	1.097	59.90	0.05	-32.0	
1Q11	6.53	14.40	1.869	3.20	0.74	-6.00	
2Q11	6.81	18.18	0.560	30.00	1.10	-53.0	
3Q11	6.83	18.79	*	19.00	*	0.01	
4Q11	6.65	19.79	1.100	2.22	0.28	-49.0	
1Q12	6.58	15.54	1.047	3.31	0.09	86.0	
2Q12	6.67	20.51	2.325	3.58	0.00	-31.0	
3Q12	6.69	21.88	1.062	1.69	0.03	-69.0	
4Q12	6.75	18.34	2.973	6.24	0.17	-15.0	
1Q13	6.90	18.28	1.056	8.57	0.00	-91.0	
MW-08							
4Q10	6.41	17.17	1.133	61.50	0.04	-54.0	
1Q11	6.37	16.21	2.065	18.00	0.80	-14.0	
2Q11	6.55	19.98	0.791	20.40	0.06	-64.0	
3Q11	*	19.18	*	62.50	4.64	-0.15	
4Q11	6.56	19.16	1.159	5.28	1.22	-0.03	
1Q12	6.46	16.89	1.593	3.04	0.02	8.00	
2Q12	6.52	20.05	2.262	3.16	0.08	-11.0	
3Q12	6.46	21.97	1.299	7.27	0.00	17.0	Well was resampled on 08/07/12.
4Q12	6.52	17.81	4.075	5.83	0.12	0.00	
1Q13	6.58	17.83	0.863	9.84	0.00	-56.0	
MW-09							
4Q10	6.72	16.98	0.919	48.30	1.72	-45.0	
1Q11	6.73	12.97	1.524	17.20	0.03	-34.0	
2Q11	6.73	18.14	1.138	15.00	0.05	-58.0	
3Q11	6.68	22.67	*	*	0.00	-0.08	
4Q11	6.66	18.84	1.012	366.20	0.20	-75.0	sampled on 11/1
1Q12	6.56	17.30	1.160	7.35	0.00	-27.0	
2Q12	6.62	20.12	2.821	5.46	0.00	-15.0	
3Q12	6.67	19.87	1.127	8.71	0.01	-39.0	
4Q12	6.69	17.19	3.368	5.51	0.00	-10.0	
1Q13	6.73	17.96	1.367	25.29	0.00	-111.0	

TABLE 2a
CUMMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-10							
4Q10	6.72	18.75	1.284	35.00	0.64	-78.0	
1Q11	6.72	13.08	1.344	4.30	0.35	-48.0	
2Q11	6.92	18.28	0.546	17.50	1.89	-48.0	
3Q11	6.93	21.44	*	*	0.00	-0.11	
4Q11	6.81	18.15	0.823	3.25	0.00	-0.10	sampled on 11/1
1Q12	6.76	18.29	0.973	28.75	0.00	-41.0	
2Q12	6.73	18.57	1.972	5.76	0.00	-63.0	
3Q12	6.87	21.46	0.623	2.57	0.02	-90.0	
4Q12	6.78	17.36	2.686	7.57	0.00	-20.0	Initial Sample
	7.61	17.42	1.222	6.93	0.00	-126.0	Laboratory Error. Re-sample for VOCs
1Q13	6.89	18.36	1.082	9.43	0.00	-173.0	Initial Sample
	6.88	16.98	6.226	8.89	0.04	-101.0	Re-sample
MW-11							
4Q10	6.59	15.28	1.023	25.50	0.01	-76.0	
1Q11	6.59	14.34	1.276	8.80	0.05	-59.0	
2Q11	6.75	17.51	1.284	21.90	0.05	-90.0	
3Q11	*	19.34	*	7.10	0.00	0.06	
4Q11	6.78	17.01	1.099	20.33	0.01	-0.06	
1Q12	6.74	16.18	1.077	7.87	0.00	22.0	
2Q12	6.76	18.13	2.204	5.40	0.00	-68.0	
3Q12	6.67	21.27	1.158	1.15	0.06	-69.0	
4Q12	6.68	18.82	4.141	8.44	0.00	-41.0	
1Q13	6.76	17.64	1.586	1.94	0.00	-179.0	
MW-12							
4Q10	6.72	14.87	1.328	62.40	0.45	212.0	
1Q11	6.66	14.98	1.196	9.20	0.16	159.0	
2Q11	6.80	19.51	0.958	5.40	0.01	132.0	
3Q11	6.89	20.17	*	*	0.01	0.22	
4Q11	6.83	18.28	1.127	0.03	0.00	-0.10	
1Q12	6.78	17.26	1.074	8.26	0.10	146.0	
2Q12	6.80	18.23	1.736	4.57	0.00	38.0	
3Q12	6.78	20.11	0.912	2.66	0.03	4.00	
4Q12	6.81	19.19	2.515	6.47	0.00	90.0	
1Q13	6.79	17.34	1.006	5.83	0.06	1.00	
MW-13							
4Q10	NM	NM	NM	NM	NM	NM	
1Q11	6.52	17.78	1.379	19.20	0.10	-82.0	
2Q11	6.79	21.28	0.713	48.00	0.07	-71.0	
3Q11	6.89	20.78	1.230	18.50	0.57	-130.0	
4Q11	6.65	20.01	1.115	5.25	0.00	-102.0	
1Q12	6.68	18.94	1.202	5.78	0.00	-0.06	
2Q12	6.66	20.78	2.374	6.11	0.00	-78.0	
3Q12	6.64	22.65	1.435	7.16	0.00	-96.0	
4Q12	6.60	20.73	3.041	9.02	0.04	-35.0	
1Q13	6.64	18.59	1.019	3.55	0.01	-178.0	
MW-14							
4Q11	6.71	18.41	0.966	1783.00	0.00	-0.09	
1Q12	NM	NM	NM	NM	NM	NM	Restricted Area.
2Q12	6.64	20.65	2.151	9.70	0.00	5.00	
3Q12	6.61	22.82	1.058	5.78	0.00	-63	
4Q12	6.61	19.59	1.137	7.69	0.03	-129.0	
1Q13	6.65	18.92	0.804	8.18	0.06	-100.0	
MW-16							
1Q13	*	19.17	0.851	7.03	0.00	-98.0	Added to Interim GW Monitoring Program in 1Q13
MW-22							
1Q13	*	17.69	1.096	9.20	0.00	-111.0	Added to Interim GW Monitoring Program in 1Q13
P-54							
4Q10	6.71	14.70	0.870	68.60	1.74	140.0	
1Q11	6.69	14.47	0.970	25.40	1.29	56.0	
2Q11	6.74	17.70	0.885	48.00	1.62	-66.0	
3Q11	6.80	17.89	*	20.80	0.27	0.27	
4Q11	6.73	17.01	0.921	11.53	0.57	0.14	
1Q12	6.73	16.45	1.010	5.10	0.31	61.0	
2Q12	6.66	18.78	2.066	36.80	0.22	180.0	
3Q12	6.72	19.02	0.973	7.77	0.00	9.00	
4Q12	6.72	17.62	1.167	4.76	0.17	146.0	
1Q13	6.75	17.50	1.061	4.97	0.11	-23.0	
P-55							
4Q11	6.90	18.41	0.727	4.88	0.00	-0.13	Added to Interim GW Monitoring Program in 4Q11
1Q12	6.86	15.22	0.706	1.56	0.08	-0.07	
2Q12	6.78	19.69	2.098	4.55	0.00	-43.0	
3Q12	NM	NM	NM	NM	NM	NM	Well compromised
4Q12	NM	NM	NM	NM	NM	NM	Well compromised
1Q13	*	17.37	0.635	7.68	-0.01	-125.0	Initial Sample
	*	17.37	0.635	7.68	-0.01	-125.0	Re-Sample

TABLE 2a
CUMMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-56							
4Q11	6.68	18.24	1.063	1286.00	0.00	-0.12	Added to Interim GW Monitoring Program in 4Q11
1Q12	6.53	16.08	1.012	4.68	0.04	-5.00	
2Q12	6.57	21.78	2.385	1.04	0.00	0.00	
3Q12	6.58	22.08	1.245	3.47	0.00	12.0	
4Q12	6.51	22.60	3.040	7.52	0.02	-7.00	
1Q13	*	20.98	1.106	4.56	0.00	-47.0	
P-57							
4Q11	6.60	18.87	1.220	220.70	0.00	-0.10	Added to Interim GW Monitoring Program in 4Q11
1Q12	6.48	16.73	1.502	2.30	0.02	-73.0	
2Q12	6.55	19.24	2.718	2.28	0.00	-54.0	
3Q12	6.59	20.98	1.182	3.25	0.00	-5.00	
4Q12	6.59	18.72	3.841	5.19	0.00	-28.0	
1Q13	*	20.16	1.116	6.22	0.00	-104.0	
P-58							
4Q11	6.53	18.22	1.144	10.71	0.00	-0.06	Added to Interim GW Monitoring Program in 4Q11
1Q12	6.54	16.97	1.252	14.38	0.01	-0.03	
2Q12	6.50	19.08	2.978	10.20	0.00	-5.00	
3Q12	6.56	19.51	1.199	12.67	0.00	19.0	
4Q12	6.49	18.76	2.836	8.22	0.00	11.0	Initial Sample
	7.45	18.15	1.259	13.60	0.01	-112.0	Laboratory Error. Re-sample for SVOCs and PAHs
1Q13	6.57	16.48	0.964	23.26	0.00	-67.0	
P-59							
4Q11	6.71	18.22	1.211	38.94	0.00	-0.11	Added to Interim GW Monitoring Program in 4Q11
1Q12	6.56	16.14	1.152	8.31	0.00	-26.0	
2Q12	6.59	19.27	2.582	3.30	0.00	-23.0	
3Q12	6.63	21.74	1.220	9.00	0.00	-79.0	
4Q12	6.57	17.90	2.977	7.16	0.00	14.0	
1Q13	6.64	16.36	1.208	4.99	0.00	-82.0	
P-66							
4Q11	6.38	18.49	1.228	29.77	0.00	-0.10	Added to Interim GW Monitoring Program in 4Q11
1Q12	NM	NM	NM	NM	NM	NM	Restricted Area.
2Q12	6.42	20.82	2.898	19.95	0.00	-11.0	
3Q12	6.41	22.52	1.372	20.89	0.00	-53.0	
4Q12	6.44	18.80	1.353	21.29	0.00	-161.0	
1Q13	6.48	19.00	0.943	14.28	0.00	-79.0	
P-74							
4Q11	6.54	18.49	0.502	15.49	0.00	-0.10	
1Q12	6.84	11.70	0.233	6.86	0.87	101	
2Q12	6.84	19.17	0.367	8.55	0.37	28	
3Q12	6.68	20.31	0.580	10.52	0.00	1.00	
4Q12	6.60	18.13	2.047	14.87	0.00	-22	
1Q13	*	16.88	0.445	24.29	0.00	-39	
P-93A							
4Q10	6.81	17.70	1.259	23.00	NM	NM	
1Q11	6.68	16.16	2.517	12.80	NM	NM	
2Q11	6.63	18.30	0.670	9.55	NM	NM	
3Q11	*	18.72	1.690	23.40	NM	NM	
4Q11	6.68	16.16	2.517	12.80	2.96	-68.0	
1Q12	6.65	15.81	1.195	9.38	6.14	5.00	
2Q12	7.34	18.04	1.247	18.22	5.80	11.0	
3Q12	6.71	20.89	1.144	43.60	5.20	-13.0	
4Q12	6.63	20.47	3.042	32.40	4.64	15.0	
1Q13	6.79	20.25	1.198	36.06	4.26	-66.0	
P-93B							
4Q10	7.10	18.10	1.150	0.00	NM	NM	
1Q11	6.69	16.44	1.377	1.20	NM	NM	
2Q11	6.64	19.20	0.757	0.11	NM	NM	
3Q11	7.38	21.60	1.330	14.60	NM	NM	
4Q11	6.87	17.38	1.551	2.40	3.34	-104.0	
1Q12	6.87	13.39	1.250	2.11	0.21	28.0	
2Q12	7.51	18.52	1.555	4.99	1.84	-32.0	
3Q12	6.76	19.61	1.973	3.28	0.12	-65.0	
4Q12	6.77	17.79	3.045	0.76	0.00	-48.0	
1Q13	6.80	17.81	1.731	2.92	0.12	-116.0	
P-93C							
4Q10	7.28	17.50	1.057	0.00	NM	NM	
1Q11	7.14	16.51	1.832	0.50	NM	NM	
2Q11	6.81	18.40	0.693	0.52	NM	NM	
3Q11	6.96	21.41	1.320	5.10	NM	NM	
4Q11	6.92	17.34	1.176	1.14	0.92	-77.0	
1Q12	6.84	15.44	1.100	0.01	3.94	94.0	
2Q12	7.69	18.41	1.139	4.39	1.11	-49.0	
3Q12	6.77	20.55	1.416	8.66	0.16	-45.0	
4Q12	6.78	18.27	2.904	0.00	0.02	19.0	
1Q13	6.91	17.76	0.916	0.83	0.12	-118.0	

TABLE 2a
CUMMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-93D							
4Q10	7.13	18.50	1.211	0.00	NM	NM	
1Q11	NM	NM	NM	NM	NM	NM	
2Q11	6.89	16.70	0.710	0.16	NM	NM	
3Q11	6.68	20.90	1.410	0.86	NM	NM	
4Q11	6.99	18.13	1.224	0.00	0.00	-166.0	
1Q12	6.93	15.16	12.22	1.77	0.08	-23.0	
2Q12	6.93	19.04	2.254	3.31	0.00	-0.03	
3Q12	6.93	21.54	1.446	2.93	0.00	-88.0	
4Q12	6.96	18.77	2.704	0.24	0.00	-24.0	
1Q13	7.07	16.25	1.187	4.91	0.00	-77.0	
P-114							
4Q11	7.16	20.29	1.287	12.60	3.19	-118.0	Added to Interim GW Monitoring Program in 4Q11
1Q12	7.02	19.70	1.155	7.81	4.25	-6.00	
2Q12	7.01	21.38	1.212	8.60	1.33	-0.06	
3Q12	7.13	23.30	1.153	9.01	0.53	-64.0	
4Q12	7.12	21.18	2.274	12.12	3.00	15.0	
1Q13	7.25	19.52	0.782	9.14	1.53	-96.0	
ROST-3-MW							
1Q13	*	16.92	0.723	6.82	-0.08	-124.0	
ROST-3-PZ							
2Q12	6.94	19.34	1.949	9.40	0.35	15.0	Added to Interim GW Monitoring Program in 2Q12
3Q12	6.83	24.31	0.813	6.90	0.29	-95.0	
4Q12	6.84	15.50	2.421	6.38	0.63	-9.00	
ROST-4-PZ(C)							
2Q12	6.77	20.00	2.128	0.40	0.00	-1.00	Added to Interim GW Monitoring Program in 2Q12
3Q12	6.74	21.56	0.976	6.67	0.04	-94.0	
4Q12	6.75	18.50	2.754	0.81	0.02	-47.0	
1Q13	6.77	19.35	1.091	7.82	0.00	-173.0	
T-12							
4Q11	6.87	16.98	0.919	6.28	0.00	-111.0	Added to Interim GW Monitoring Program in 4Q11
1Q12	6.85	15.13	0.801	13.15	0.00	-0.09	
2Q12	6.66	17.63	2.382	1.18	0.00	-37.0	
3Q12	6.79	18.86	1.259	4.54	0.00	-125.0	
4Q12	6.68	16.69	3.955	1.47	0.00	-2.00	
1Q13	6.93	15.73	1.075	2.11	0.00	-117.0	

NOTES:
1) Field parameters were collected using theTroll 9500.
2) NM = Not Measured; NI = Not Installed
3) * = Equipment malfunction. Results are suspect.
4) Negative parameters readings for Turbidity and DO are recorded as zero.

TABLE 2b
CUMMULATIVE SUMMARY OF PERCHED GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-60-12S							
2Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
P-60-13S							
2Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.
ROST-5-PZ							
2Q12	NM	NM	NM	NM	NM	NM	Well is dry.
3Q12	NM	NM	NM	NM	NM	NM	Well is dry.
4Q12	NM	NM	NM	NM	NM	NM	Well is dry.
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.
ROST-7-PZ							
2Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
1Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
ROST-10-PZ							
2Q12	NM	NM	NM	NM	NM	NM	Well is dry.
3Q12	NM	NM	NM	NM	NM	NM	Well is dry.
4Q12	NM	NM	NM	NM	NM	NM	Well is dry.
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.
ROST-21-PZ							
2Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
3Q12	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
4Q12	NM	NM	NM	NM	NM	NM	Well is dry.
1Q13	NM	NM	NM	NM	NM	NM	Well is dry.

NOTES:
1) NM = Not Measured

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																				
						Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,4-Dioxane	Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)
					Screening Values (mg/L)	0.005 [1]	4.2 [1]	0.35 [3]			0.7 [2]	0.005 [1]	0.1 [2]		0.0002 [2]				0.005 [4]	0.7 [1]		0.007 [3]		
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																				
MW-01	MW-1-111110	11/11/2010	43.41 - 58.41	36.91	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW-1-111110-Dup	11/11/2010		36.91	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW1-ROX-011711	1/17/2011		37.58	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW1-ROX-042911	4/29/2011		38.37	NE	0.0363	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW1-ROX-072711	7/27/2011		35.15	NE	0.0053	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW1-ROX-120511	12/5/2011		37.10	NE	0.00097	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW1-ROX-011612	1/16/2012	49.98 - 59.98	37.75	NE	0.0142	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW1-ROX-050112	5/1/2012		39.09	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW1-ROX-073012	7/30/2012		39.39	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW1-ROX-102612	10/26/2012		41.22	NE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		R
	MW1-ROX-121712	12/17/2012		41.22	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW1-ROX-011013	1/10/2013	49.98 - 59.98	41.89	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
MW-02	MW-2-111010	11/11/2010	47.19 - 62.19	38.12	NE	0.401	<0.25	<0.025	<0.025	<0.025	<0.25	<0.025	<0.025	<0.05	<0.025	<0.05	<0.025	<0.025		0.641		<0.025		
	MW2-ROX-011711	1/17/2011		38.67	NE	0.294	<0.005	0.0078	0.0047 J	<0.005	<0.005	<0.001	<0.001	0.0077	<0.001	0.0019 J	<0.005	0.0032 J		0.74		<0.005		
	MW02-ROX-051011	5/10/2011		39.14	NE	1.18	<0.005	<0.005	0.0029 J	0.0012 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0027 J	<0.025	1.24	<0.005	<0.005		<0.005
	MW2-ROX-072711	7/27/2011		36.36	NE	1.98	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.25	1.76	<0.05	<0.05		<0.05
	MW2-ROX-072711-DUP	7/27/2011		36.36	NE	1.79	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.25	1.57	<0.05	<0.05		<0.05
	MW2-ROX-112811	11/28/2011	51.32 - 61.32	38.03	NE	0.0216	<0.005	<0.005	0.0106	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0121	<0.025	0.503	<0.005	<0.005		<0.005
	MW2-ROX-011612	1/16/2012		38.89	NE	0.0161	<0.025	<0.025	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.13	0.777	<0.025	<0.025		<0.025
	MW2-ROX-050112	5/1/2012		40.25	NE	0.0145	<0.025	<0.025	0.0068 J	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	0.008 J	<0.13	0.948	<0.025	<0.025		<0.025
	MW2-ROX-073012	7/30/2012		40.60	NE	0.01	<0.005	<0.005	0.0078	0.001 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.009	<0.025	0.952	<0.005	<0.005		<0.005
	MW2-ROX-102612	10/26/2012		42.35	NE	0.0142	<0.025	<0.025	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	0.0172 J	<0.025	<0.13	0.763	<0.025	<0.025		<0.025
	MW2-ROX-011113	1/11/2013	51.32 - 61.32	42.94	NE	0.0192	<0.01	0.0176 J	0.0077 J	0.002 J	<0.01	<0.002	<0.002	0.0083	<0.002	<0.004	<0.01	0.0094 J	<0.05	0.676	<0.01	<0.01		<0.01
MW-03	MW-3-111210	11/12/2010	30.98 - 45.98	24.05	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW3-ROX-011811	1/18/2011		24.92	NE	0.00056	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	0.00077 J	<0.001	0.00082 J	<0.005	<0.005		0.00082 J		<0.005		
	MW03-ROX-051011	5/10/2011		24.79	NE	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW3-ROX-080311	8/3/2011		22.40	NE	0.00056	<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW3-ROX-112911	11/29/2011	34.67 - 44.67	24.06	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW3-ROX-112911-DUP	11/29/2011		24.06	NE	0.00052	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW3-ROX-011612	1/16/2012		24.93	NE	0.00091	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW3-ROX-043012	4/30/2012		26.19	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW3-ROX-072712	7/27/2012		26.60	NE	0.0089	<0.005 UJ	<0.005	<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.002 UJ	<0.001	<0.002	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005 UJ
	MW3-ROX-102512	10/25/2012		28.39	NE	0.0017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW3-ROX-010913	1/9/2013	34.67 - 44.67	29.35	NE	0.0014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW-4-111210	11/12/2010	42.63 - 57.63	35.38	NE	0.0752	<0.05	<0.005	0.001 J	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW4-ROX-011811	1/18/2011		36.04	NE	0.0567	<0.005	0.0006 J	0.00063 J	0.00069 J	<0.005	<0.001	<0.001	0.00096 J	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW04-ROX-051111	5/11/2011		36.19	NE	0.0625	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW4-ROX-072611	7/26/2011		33.65	NE	0.114	<0.005	<0.005	0.0058	0.0063	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0023	<0.005	<0.005		<0.005
	MW4-ROX-072611-DUP	7/26/2011		33.65	NE	0.108	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0021	<0.005	<0.005		<0.005
	MW4-ROX-121511	12/15/2011		33.99	NE	0.0381	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW4-ROX-011612	1/16/2012		36.00	NE	0.115	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	0.0017 J	<0.005		<0.005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																				
						Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,4-Dioxane	Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)
				Screening Values (mg/L)		0.005 [1]	4.2 [1]	0.35 [3]			0.7 [2]	0.005 [1]	0.1 [2]		0.0002 [2]				0.005 [4]	0.7 [1]		0.007 [3]		
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
MW-04	MW4-ROX-050312	5/3/2012	46.06 - 56.06	37.45	NE	0.0941	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW4-ROX-050312-DUP	5/3/2012		37.45	NE	0.0933	<0.005	<0.005	<0.005	0.0012 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW4-ROX-072512	7/25/2012		37.63	NE	0.191	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.00082 J	<0.005	<0.005 UJ		<0.005
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	0.199	<0.005	0.0014 J	0.0017 J	0.002 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.00083 J	<0.005	<0.005 UJ		<0.005
	MW4-ROX-102912	10/29/2012		39.45	NE	0.354	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004 UJ	<0.01	<0.01	<0.05	<0.002	<0.01	<0.01		<0.01
	MW4-ROX-011113	1/11/2013		40.20	NE	9.04 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.00052 J	<0.005	<0.005		<0.005
	MW4-ROX-011113-DUP	1/11/2013	46.06 - 56.06	40.20	NE	8.96 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.00056 J	<0.005	<0.005		<0.005
	MW4-ROX-030413	3/4/2013		40.20	NE	21.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	<0.1	<0.5	<0.5		<0.5
MW-05	MW-5-111210	11/12/2010	31.13 - 46.13	23.32	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW5-ROX-011811	1/18/2011		24.15	NE	0.0048	<0.005	<0.005	<0.005	0.0014 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW05-ROX-051211	5/12/2011		23.98	NE	0.0055	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW5-ROX-072611	7/26/2011		21.72	NE	0.0222	<0.005	0.0054	0.0061	0.0078	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW5-ROX-072611-DUP	7/26/2011		21.72	NE	0.0221	<0.005	0.0054	0.0061	0.0078	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW5-ROX-112111	11/21/2011	33.97 - 43.97	23.46	NE	0.0109	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005
	MW5-ROX-011712	1/17/2012		24.76	NE	0.0442	<0.005	<0.005	<0.005	0.0057	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW5-ROX-050312	5/3/2012		25.89	NE	0.0532	<0.005	<0.005	0.0029 J	0.0073	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0014 J	<0.025	<0.001	<0.005	<0.005		<0.005
	MW5-ROX-072512	7/25/2012		26.18	NE	0.0925	<0.005	<0.005	0.0015 J	0.007	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.00099 J	<0.025	<0.001	<0.005	<0.005 UJ		<0.005
	MW5-ROX-102912	10/29/2012		28.16	NE	0.0628	<0.005	<0.005	<0.005	0.0059	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW5-ROX-011113	1/11/2013	33.97 - 43.97	28.75	NE	0.0072	<0.005	<0.005	0.0016 J	0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
MW-06A	MW-6A-110910	11/9/2010	31.98 - 46.98	25.62	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW6A-ROX-011911	1/19/2011		26.36	NE	0.0113	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW6A-ROX-051611	5/16/2011		26.10	NE	0.0031	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	MW6A-ROX-072611	7/26/2011		24.07	NE	0.0032	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6A-ROX-112111	11/21/2011	34.83 - 44.83	25.49	NE	0.0105 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005
	MW6A-ROX-112111-DUP	11/21/2011		25.49	NE	0.0137 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005
	MW6A-ROX-011712	1/17/2012		26.74	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6A-ROX-050212	5/2/2012		27.77	NE	0.00077	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6A-ROX-080112	8/1/2012		28.36	NE	0.0016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6A-ROX-102412	10/24/2012		30.06	NE	0.00073	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6A-ROX-011413	1/14/2013	34.83 - 44.83	31.00	NE	0.0276	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
MW-06B	MW-6B-111610	11/16/2010	64.05 - 69.05	25.47	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW6B-ROX-011911	1/19/2011		26.21	NE	0.0082	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW6B-ROX-011911-DUP	1/19/2011		26.21	NE	0.0082	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		0.0014 J		
	MW6B-ROX-051611	5/16/2011		25.95	NE	0.0033	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	MW6B-ROX-051611-DUP	5/16/2011		25.95	NE	0.0033	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	MW6B-ROX-072311	7/23/2011		23.60	NE	0.0022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6B-ROX-110311	11/3/2011		24.67	NE	0.961	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02 UJ	<0.05	<0.05	<0.25	<0.01	<0.05	<0.05		<0.05
	MW6B-ROX-011712	1/17/2012		26.77	NE	0.0013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6B-ROX-050212	5/2/2012		27.82	NE	0.00086	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6B-ROX-080112	8/1/2012		28.39	NE	0.00045 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6B-ROX-102412	10/24/2012		30.11	NE	0.0015	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6B-ROX-011713	1/17/2013	64.05 - 69.05	31.11	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
MW-06C	MW-6C-111610	11/16/2010	84.95 - 89.95	25.25	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW6C-ROX-012111	1/21/2011		25.97	NE	0.0085	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW6C-ROX-051611	5/16/2011		25.76	NE	0.0071	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	MW6C-ROX-072411	7/24/2011		23.43	NE	0.0027	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6C-ROX-110311	11/3/2011		24.47	NE	0.0017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6C-ROX-011712	1/17/2012		26.50	NE	0.0028	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6C-ROX-050212	5/2/2012		27.62	NE	0.0015	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6C-ROX-080112	8/1/2012		28.15	NE	0.00061	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
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						VOCs																				
						Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,4-Dioxane	Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)
				Screening Values (mg/L)		0.005 [1]	4.2 [1]	0.35 [3]			0.7 [2]	0.005 [1]	0.1 [2]		0.0002 [2]				0.005 [4]	0.7 [1]		0.007 [3]		
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
	MW6C-ROX-102412	10/24/2012		27.85	NE	0.00035 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6C-ROX-011713	1/17/2013	84.95 - 89.95	30.88	NE	<0.0005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.025 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ		<0.005 UJ
MW-06D	MW-6D-111610	11/16/2010	104.72 - 109.72	25.13	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW6D-ROX-012111	1/21/2011		25.87	NE	0.0104	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW6D-ROX-051611	5/16/2011		25.60	NE	0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	MW6D-ROX-072311	7/23/2011		23.29	NE	0.0027	<0.005	<0.005	<0.005	<0.005	0.007	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6D-ROX-110311	11/3/2011		24.31	NE	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6D-ROX-011712	1/17/2012		26.33	NE	0.0022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6D-ROX-050212	5/2/2012		27.45	NE	0.0015	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6D-ROX-080212	8/2/2012		30.56	NE	0.00068	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005
	MW6D-ROX-102412	10/24/2012		29.71	NE	0.00055	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW6D-ROX-011713	1/17/2013	104.72 - 109.72	30.75	NE	0.00053 J	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.025 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ		<0.005 UJ
MW-07	MW-7-111710	11/17/2010	42.92 - 52.92	36.93	NE	928 D	<12.5	<1.25	<1.25	<1.25	<12.5	<1.25	<1.25	<2.5	<1.25	<2.5	<1.25	<1.25		<1.25		<1.25		
	MW-7-111710-Dup	11/17/2010		36.93	NE	876 D	<12.5	<1.25	<1.25	<1.25	<12.5	<1.25	<1.25	<2.5	<1.25	<2.5	<1.25	<1.25		<1.25		<1.25		
	MW7-ROX-012511	1/25/2011		37.52	NE	1150 J	<0.005 UJ	0.0015 J J	0.0011 J J	0.0012 J J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ		0.0325 J		<0.005 UJ		<0.005 UJ
	MW07-ROX-051311	5/13/2011		37.50	NE	1030 J	<0.005 UJ	<0.005 UJ	0.0011 J J	0.0016 J J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.025 UJ	0.0494 J	<0.005 UJ	<0.005 UJ		<0.005 UJ
	MW07-ROX-051311D	5/13/2011		37.50	NE	922 J	<0.005	<0.005	0.0013 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0487	<0.005	<0.005		<0.005
	MW7-ROX-072411	7/24/2011		35.22	NE	1840	<25	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<130	<5	<25	<25		<25
	MW-7-ROX-110211	11/2/2011		35.95	NE	774	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2 UJ	<5	<5	<25	<1	<5	<5		<5
	MW7-ROX-011812	1/18/2012		38.10	NE	1330 J	<0.005	0.0026 J	0.0021 J	0.003 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0727	<0.005	<0.005		<0.005
	MW7-ROX-011812-DUP	1/18/2012		38.10	NE	1110	<0.005	0.0027 J	0.0022 J	0.0029 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0015 J	<0.025	0.0718	<0.005	<0.005		<0.005
	MW7-ROX-050412	5/4/2012		39.19	NE	738	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	<0.1	<0.5	<0.5		<0.5
	MW7-ROX-080712	8/7/2012		39.50	NE	591	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.25	0.0619	<0.05	<0.05		<0.05
	MW7-ROX-103012	10/30/2012		41.23	NE	833	<10	<10	<10	<10	<10	<2	<2	<4	<2	<4 UJ	<10	<10	<50	<2	<10	<10		<10
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	863	<10	<10	<10	<10	<10	<2	<2	<4	<2	<4 UJ	<10	<10	<50	<2	<10	<10		<10
	MW7-ROX-011513	1/15/2013	42.92 - 52.92	42.21	NE	1230	<20	<20	<20	<20	<20	<4	<4	<8	<4	<8	<20	<20	<100	<4	<20	<20		<20
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	1320	<20	<20	<20	<20	<20	<4	<4	<8	<4	<8	<20	<20	<100	<4	<20	<20		<20
MW-08	MW-8-111710	11/17/2010	33.60 - 43.60	27.84	NE	965 D	<12.5	<1.25	<1.25	<1.25	<12.5	<1.25	<1.25	<2.5	<1.25	<2.5	<1.25	<1.25		<1.25		<1.25		
	MW8-ROX-012511	1/25/2011		28.59	NE	986	<0.005 UJ	0.0021 J J	0.0014 J J	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	0.0012 J J		0.234 J		<0.005 UJ		<0.005 UJ
	MW8-ROX-012511-DUP	1/25/2011		28.59	NE	1030	<0.005 UJ	0.002 J J	0.0014 J J	0.0011 J J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	0.001 J J		0.237 J		<0.005 UJ		<0.005 UJ
	MW08-ROX-051311	5/13/2011		28.35	NE	1310	<50	<50	<50	<50	<50	<10	<10	<20	<10	<20	<50	<50	<250	<10	<50	<50		<50
	MW08-ROX-051311D	5/13/2011		28.35	NE	952 J	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<25	<1	<5	<5		<5
	MW8-ROX-072411	7/24/2011		26.02	NE	1650	<25 UJ	<25	<25	<25	<25	<5	<5	<10	<5	<10 UJ	<25	<25	<130	<5	<25	<25		<25
	MW8-ROX-072411-DUP	7/24/2011		26.02	NE	1860	<25	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<130	<5	<25	<25		<25
	MW-8-ROX-110211	11/2/2011		27.02	NE	934	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2 UJ	<5	<5	<25	<1	<5	<5		<5
	MW8-ROX-011812	1/18/2012		29.15	NE	386	<0.005	0.0043 J	0.003 J	0.002 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0022 J	<0.025	0.285	<0.005	<0.005		<0.005
	MW8-ROX-050412	5/4/2012		30.21	NE	1070	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	0.393	<0.5	<0.5		<0.5
	MW8-ROX-050412-DUP	5/4/2012		30.21	NE	1040	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	0.396	<0.5	<0.5		<0.5
	MW8-ROX-080712	8/7/2012		30.97	NE	397 J	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.5	0.249	<0.1	<0.1		<0.1
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	653 J	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.25	0.232	<0.05	<0.05		<0.05
	MW8-ROX-103012	10/30/2012		32.32	NE	523	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2 UJ	<5	<5	<25	<1	<5	<5		<5
	MW8-ROX-011513	1/15/2013	33.60 - 43.60	33.30	NE	1120 J	<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<50	<2	<10	<10		<10
MW-09	MW-9-111510	11/15/2010	46.45 - 56.45	39.00	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW9-ROX-012111	1/21/2011		39.62	NE	0.0037	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		
	MW09-ROX-050611	5/6/2011		40.12	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	MW9-ROX-072311	7/23/2011		37.27	NE	0.0024	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW9-ROX-110111	11/1/2011		37.78	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW9-ROX-011612	1/16/2012		39.50	NE	0.0031	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW9-ROX-050312	5/3/2012		41.03	NE	0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW9-ROX-072712	7/27/2012		41.30	NE	0.00058	<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005 UJ
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW9-ROX-011113	1/11/2013	46.45 - 56.45	43.90	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW-10-111010	11/10/2010		38.97	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW10-ROX-012411	1/24/2011		39.40	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		<0.005
	MW10-ROX-012411-DUP	1/24/2011		39.40	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		<0.005
	MW10-ROX-042811	4/28/2011		40.20	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW10-ROX-072311	7/23/2011		37.24	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																				
						Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,4-Dioxane	Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)
					Screening Values (mg/L)	0.005 [1]	4.2 [1]	0.35 [3]			0.7 [2]	0.005 [1]	0.1 [2]		0.0002 [2]				0.005 [4]	0.7 [1]		0.007 [3]		
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																				
MW-10	MW10-ROX-110111	11/1/2011	44.43 - 54.43	37.72	NE	0.0022	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW10-ROX-011612	1/16/2012		39.28	NE	0.0026	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW10-ROX-050112	5/1/2012		40.86	NE	0.00079	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW10-ROX-072712	7/27/2012		41.21	NE	0.00058	<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005 UJ
	MW10-ROX-102612	10/26/2012		43.08	NE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R		R
	MW10-ROX-121712	12/17/2012		43.08	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	0.00095 J	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW10-ROX-011013	1/10/2013	44.43 - 54.43	44.10	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	0.0074	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW10-ROX-012113	1/21/2013		44.10	NE	0.003	<0.0051 U	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.001	<0.01	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.02	<0.025
MW-11	MW-11-111710	11/17/2010	41.66 - 51.66	36.39	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW11-ROX-012411	1/24/2011		37.15	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		<0.005
	MW11-ROX-050611	5/6/2011		37.60	NE	0.00041 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	MW11-ROX-072411	7/24/2011		34.68	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW-11-ROX-110211	11/2/2011		35.44	NE	0.0019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW11-ROX-011712	1/17/2012		37.44	NE	0.0024	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW11-ROX-043012	4/30/2012		38.66	NE	0.00087	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW11-ROX-072712	7/27/2012		38.90	NE	0.00073	<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005 UJ
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW11-ROX-011013	1/10/2013	41.66 - 51.66	41.43	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
MW-12	MW-12-111510	11/15/2010	41.92 - 51.92	36.63	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	0.00161 J	<0.01	<0.005	<0.005		<0.005		<0.005		
	MW12-ROX-012411	1/24/2011		37.42	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		<0.005
	MW12-ROX-051211	5/12/2011		37.58	NE	0.0016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW12-ROX-072411	7/24/2011		34.88	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002	<0.005	<0.005 UJ	<0.025	<0.001	<0.005	<0.005		<0.005
	MW-12-ROX-110211	11/2/2011		35.70	NE	0.0012	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW12-ROX-110211-DUP	11/2/2011		35.70	NE	0.0014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW12-ROX-011712	1/17/2012		37.70	NE	0.0023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW12-ROX-011712-DUP	1/17/2012		37.70	NE	0.0028	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW12-ROX-043012	4/30/2012		38.98	NE	0.00066	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW12-ROX-072712	7/27/2012		39.22	NE	0.0013	<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005 UJ
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW12-ROX-011013	1/10/2013	41.92 - 51.92	41.83	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
MW-13	MW13-ROX-012511	1/25/2011	25.57 - 35.57	24.28	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		<0.005
	MW13-ROX-051311	5/13/2011		23.65	NE	0.0005 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW13-ROX-080311	8/3/2011		21.88	NE	<0.0005	<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW13-ROX-110311	11/3/2011		22.85	NE	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW13-ROX-012012	1/20/2012		24.77	NE	0.0742 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW13-ROX-050712	5/7/2012		25.79	NE	0.009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW13-ROX-080812	8/8/2012		26.67	NE	0.0069 J	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	<0.005 UJ	<0.025 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ		<0.005 UJ
	MW13-ROX-110812	11/8/2012		25.30	NE	0.0048	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW13-ROX-012313	1/23/2013	25.57 - 35.57	29.26	NE	0.0067 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025 UJ	<0.001	<0.005	<0.005		<0.005
MW-14	MW14-ROX-110911	11/9/2011	Unknown			<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW14-ROX-051012	5/10/2012				0.009	<0.005	0.0014 J	0.0026 J	0.0012 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW14-ROX-080312	8/3/2012	33.42 - 43.42	29.87	NE	0.0131	<0.005	0.0015 J	0.0027 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.00065 J	<0.005	<0.005		<0.005
	MW14-ROX-103112	10/31/2012		32.02	NE	0.00093	<0.005	<0.005	0.0028 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	MW14-ROX-011813	1/18/2013	33.42 - 43.42	33.05	NE	0.0017	<0.005	0.0014 J	0.0032 J	0.0011 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
MW-16	MW16-ROX-012313	1/23/2013	37.43 - 47.43	43.05	NE	0.00057 J	0.0029 J	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025 UJ	<0.001	<0.005	<0.005		<0.005
MW-22	MW22-ROX-012313	1/23/2013	38.21 - 48.21	41.80	NE	2.12	<0.295 U	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<1.3 UJ	3.45	<0.25	<0.25		<0.25
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	2.09	<0.31 U	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<1.3 UJ	3.19	<0.25	<0.25		<0.25
P-54	P-54-111710	11/17/2010	38.00 - 63.00	36.43	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	P54-ROX-012411	1/24/2011		37.24	NE	<0.00039 U	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001		<0.005		<0.005
	P54-ROX-051111	5/11/2011		37.37	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P54-ROX-072411	7/24/2011		34.78	NE	0.0023	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002 UJ	<0.001	<0.002	<0.005	<0.005 UJ	<0.025	<0.001	<0.005	<0.005		<0.005
	P54-ROX-110311	11/3/2011		35.49	NE	0.013	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P54-ROX-011712	1/17/2012		37.17	NE	0.0025	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P54-ROX-050412	5/4/2012		38.77	NE	0.00082	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P54-ROX-080212	8/2/2012		38.95	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		<0.001	<0.005	<0.005		<0.005
	P54-ROX-103012	10/30/2012		40.70	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																				
						Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,4-Dioxane	Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)
			Screening Values (mg/L)			0.005 [1]	4.2 [1]	0.35 [3]			0.7 [2]	0.005 [1]	0.1 [2]		0.0002 [2]				0.005 [4]	0.7 [1]		0.007 [3]		
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
	P54-ROX-011113	1/11/2013	38.00 - 63.00	41.56	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
P-55	P55-ROX-103111	10/31/2011	39.82 - 64.82	39.15	NE	0.152	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0143	<0.005	<0.005		<0.005
	P55-ROX-011912	1/19/2012		41.09	NE	<0.197 U	<0.005	<0.005	0.0036 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0656	<0.005	<0.005		<0.005
	P55-ROX-011912-D	1/19/2012		41.09	NE	<0.202 U	<0.005	<0.005	0.0038 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0683	<0.005	<0.005		<0.005
	P55-ROX-050912	5/9/2012		42.44	NE	0.388	<0.005	0.0099	0.0093	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0031 J	<0.025	0.41	<0.005	<0.005		<0.005
	P55-ROX-012113	1/21/2013	40.85 - 50.85	43.60	NE	0.571	<0.25	0.0533	0.011 J	<0.05	<0.05	<0.05	<0.05	<0.1	<0.01	<0.1	<0.05	<0.05	NA	0.316	<0.05	<0.01	0.276	<0.25
	P55-ROX-012113	1/21/2013		43.60	NE	0.538	<0.253 U	0.0203	0.0143	0.0013 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0055	<0.025	0.366	<0.005	<0.005		<0.005
P-56	P56-ROX-102711	10/27/2011	40.82 - 65.82	39.42	NE	0.144	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.457 J	<0.005	<0.005		<0.005
	P56-ROX-011912	1/19/2012		41.81	NE	0.335	<0.005	<0.005	0.0035 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.227	<0.005	<0.005		<0.005
	P56-ROX-050812	5/8/2012		43.09	NE	0.144	<0.005	0.0086	0.0051	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	0.0069	<0.005	0.0044 J	<0.025	1.14	<0.005	<0.005		<0.005
	P56-ROX-080612	8/6/2012		43.60	NE	0.164	<0.025 UJ	<0.025	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025		0.101	<0.025	<0.025		<0.025 UJ
	P56-ROX-103112	10/31/2012		44.80	NE	0.176	<0.005	<0.005	0.005	0.0021 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0041 J	<0.025	1.29	<0.005	<0.005		<0.005
	P56-ROX-011713	1/17/2013	40.82 - 65.82	45.65	NE	0.191	<0.025	0.0031 J	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.13	0.0088	<0.025	<0.025		<0.025
P-57	P57-ROX-110811	11/8/2011	40.46 - 65.46	39.20	NE	123	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	1.1	<0.5	<0.5		<0.5
	P57-ROX-021312	2/13/2012		42.13	NE	126	<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13	0.719	<2.5	<2.5		<2.5
	P57-ROX-050712	5/7/2012		42.92	NE	147	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	1.07	<0.5	<0.5		<0.5
	P57-ROX-080612	8/6/2012		43.53	NE	99.4	<0.25 UJ	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25		0.795	<0.25	<0.25		<0.25 UJ
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	106	<0.005 UJ	<0.005	0.0107	0.0124	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0109		0.759 E	<0.005	<0.005		<0.005 UJ
	P57-ROX-012913	1/29/2013	40.46 - 65.46	45.92	NE	114	<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	1.43	<1	<0.5	<1	<2.5	<2.5	<13	1.1	<2.5	<2.5		<2.5
P-58	P58-ROX-102811	10/28/2011	40.21 - 65.21	37.31	NE	430	<0.005	<0.005	0.0148	0.0344	<0.005	<0.001	0.0014	<0.002	<0.001	<0.002	<0.005	0.0113	<0.025	<5	<0.005	<0.005		<0.005
	P58-ROX-011912	1/19/2012		39.73	NE	487	<0.005	0.027	0.0215	0.056 J	<0.005	<0.001	0.0013	<0.002	<0.001	<0.002	<0.005	0.0149	<0.025	0.97 J	<0.005	<0.005		0.0097
	P58-ROX-011912-D	1/19/2012		39.73	NE	474	<0.005	0.0235 J	0.0168 J	0.0387 J	<0.005	<0.001	0.0014 J	<0.002	<0.001	<0.002	<0.005	0.0123 J	<0.025	1.03	<0.005	<0.005		<0.005
	P58-ROX-050712	5/7/2012		40.90	NE	477	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	1.03	<0.5	<0.5		<0.5
	P58-ROX-050712-DUP	5/7/2012		40.90	NE	440	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	1	<0.5	<0.5		<0.5
	P58-ROX-080612	8/6/2012		41.63	NE	313	<0.1 UJ	<0.1	<0.1	0.0317 J	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1		0.889	<0.1	<0.1		<0.1 UJ
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	308	<0.05	<0.05	0.0176 J	0.0339 J	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	0.0118 J	<0.25	0.931	<0.05	<0.05		<0.05
	P58-ROX-110612	11/6/2012		43.09	NE	415	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1 UJ	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	0.844	<0.5	<0.5		<0.5
	P58-ROX-121012	12/10/2012		43.09	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA
	P58-ROX-012213	1/22/2013	40.21 - 65.21	44.21	NE	552	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<25	1.27	<5	<5		<5
P-59	P59-ROX-102711	10/27/2011	47.91 - 72.91	41.06	NE	6.01	<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<1.3	1.49	<0.25	<0.25		<0.25
	P59-ROX-011912	1/19/2012		42.88	NE	6.61	<0.158 U	<0.005 UJ	0.0054	0.0031 J J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0036 J	<0.025	1.28	<0.005	<0.005		<0.005
	P59-ROX-011912-DUP	1/19/2012		42.88	NE	7.04	<0.185 U	0.0264 J	0.0055	0.0372 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0038 J	<0.025	1.4	<0.005	<0.005		<0.005
	P59-ROX-050912	5/9/2012		44.11	NE	7.86	<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<1.3	1.93	<0.25	<0.25		<0.25
	P59-ROX-080212	8/2/2012		44.07	NE	11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1		1.74	<0.1	<0.1		<0.1
	P59-ROX-110212	11/2/2012		45.98	NE	10.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	1.87	<0.5	<0.5		<0.5
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	10.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	1.94	<0.5	<0.5		<0.5
	P59-ROX-013013	1/30/2013	47.91 - 72.91	46.60	NE	12.1	<0.25	<0.25	<0.25	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<1.3	1.9	<0.25	<0.25		<0.25
P-66	P66-ROX-110111	11/1/2011	34.72 - 59.72	28.92	NE	0.0171	<0.005	0.0153	0.0185	0.0063	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	0.0016	<0.005	<0.005		<0.005
	P66-ROX-051012	5/10/2012		32.48	NE	0.0193	<0.005	0.0139	0.019	0.0059	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0015	<0.005	<0.005		<0.005
	P66-ROX-080312	8/3/2012		30.51	NE	0.0994	<0.005	0.0118	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0013	<0.005	<0.005		<0.005
	P66-ROX-103112	10/31/2012		34.75	NE	0.223	<0.005	0.0145	0.02	0.0054	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0012	<0.005	<0.005		<0.005
	P66-ROX-011813	1/18/2013	34.72 - 59.72	35.70	NE	0.0896	<0.005	0.0129	0.0227	0.0087	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0014	<0.005	<0.005		<0.005
P-74	P74-ROX-103111	10/31/2011	44.43 - 69.43	36.26	NE	5.02	<0.005	0.0242	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.229	<0.005	<0.005		<0.005
	P74-ROX-011912	1/19/2012		38.77	NE	<0.205 U	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0095	<0.005	<0.005		<0.005
	P74-ROX-050712	5/7/2012		39.92	NE	0.336	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0081	<0.005	<0.005		<0.005
	P74-ROX-080612	8/6/2012		40.71	NE	2.46	<0.05 UJ	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05		0.0782	<0.05	<0.05		<0.05 UJ
	P74-ROX-110112	11/1/2012		41.72	NE	3.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.5	0.0493	<0.1	<0.1		<0.1
	P74-ROX-011713	1/17/2013	44.43 - 69.43	42.65	NE	4.99	<0.1	0.0143 J	<0.1	<0.1	<0.1	<0.02	<0.02	<0.04	<0.02	<0.04	<0.1	<0.1	<0.5	0.0997	<0.1	<0.1		<0.1
P-93A	P93A-102610	10/26/2010	48.17 - 63.17	40.75	NE	422 D	<12.5	<1.25	<1.25	<1.25	<12.5	<1.25	<1.25	<2.5	<1.25	<2.5	<1.25	<1.25		0.32 J		<1.25		
	P93A-ROX_012611	1/26/2011		40.97	NE	491	<0.005	0.0059	0.0096	0.0213	<0.005	0.00081 J	0.00061 J	<0.002	<0.001	<0.002	<0.005	0.0047 J		0.373		0.0016 J		
	P93A-ROX-050511	5/5/2011		41.88	NE	551	<0.005	<0.005	0.0054 J	0.0133 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0034 J J	<0.025	<5	<0.005	<0.005		<0.005 UJ
	P93A-ROX-081811	8/18/2011		38.86	NE	467	<0.005	<0.005	0.0071	0.0177	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0049 J	<0.025	<10	<0.005	<0.005		<0.005
	P93A-ROX-102611	10/26/2011		39.43	NE	543	<0.005	<0.005	0.006	0.015	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0081	<0.025	0.304	<0.005	<0.005		<0.005
	P93A-ROX-012012	1/20/2012		41.66	NE	164 J	<0.005	0.0037 J J	0.0045 J	0.0122	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0023 J	<0.025	0.185	<0.005	<0.005		0.0041 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																				
						Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,4-Dioxane	Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)
						Screening Values (mg/L)	**0.005** [1]	**4.2** [1]	**0.35** [3]			**0.7** [2]	**0.005** [1]	**0.1** [2]		**0.0002** [2]				**0.005** [4]	**0.7** [1]		**0.007** [3]		
Location	**Sample ID**	**Sample Date**	**Screened Interval (ft btoc)**	**Depth to Water (ft btoc)**	**Product Thickness (ft)**	**ANALYTICAL RESULTS (mg/L)**																				
P-93A	P93A-ROX-050812	5/8/2012		42.75	NE	200	<0.005 UJ	0.005 J	0.0069 J	0.0179 J	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.002 UJ	<0.001 UJ	<0.002 UJ	<0.005 UJ	0.0035 J J	<0.025 UJ	0.38 J	<0.005 UJ	<0.005 UJ		<0.005 UJ
	P93A-ROX-080912	8/9/2012		43.66	NE	87	<0.005	0.0027 J	0.0048 J	0.0128	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0022 J	<0.025	0.225	<0.005	<0.005		<0.005
	P93A-ROX-110712	11/7/2012		45.00	NE	148	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	0.265	<0.5	<0.5		<0.5
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	156	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	0.262	<0.5	<0.5		<0.5
	P93A-ROX-012313	1/23/2013	48.17 - 63.17	45.89	NE	101	<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13 UJ	<0.5	<2.5	<2.5		<2.5
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	98.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13 UJ	<0.5	<2.5	<2.5		<2.5
P-93B	P93B-102610	10/26/2010	74.60 - 76.60	40.73	NE	189 D	<5	<0.5	<0.5	<0.5	<5	<0.5	<0.5	<1	<0.5	<1	<0.5	<0.5		<0.5		<0.5		
	P93B-ROX_012611	1/26/2011		41.03	NE	105	<0.005	<0.005	<0.005	0.00058 J	<0.005	<0.001	<0.001	0.00077 J	<0.001	0.0014 J	<0.005	<0.005		0.0104		<0.005		
	P93B-ROX-050511	5/5/2011		41.96	NE	134	<0.005	<0.005	0.0045 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0169	<0.005	<0.005		<0.005 UJ
	P93B-ROX-081811	8/18/2011		38.91	NE	304	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<25	<1	<5	<5		<5
	P93B-ROX-102611	10/26/2011		39.48	NE	590	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0533	<0.005	<0.005		<0.005
	P93B-ROX-012012	1/20/2012		41.72	NE	337	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	0.0831 J	0.0274 J	<0.005	<0.005		<0.005
	P93B-ROX-050812	5/8/2012		42.79	NE	304	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0379 J	<0.005	<0.005		<0.005
	P93B-ROX-080912	8/9/2012		43.69	NE	317	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0741	<0.005	<0.005		<0.005
	P93B-ROX-110712	11/7/2012		44.98	NE	162 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	<0.1	<0.5	<0.5		<0.5
	P93B-ROX-110712-DUP	11/7/2012		44.98	NE	413 J	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.2	<0.1	<0.2	<0.5	<0.5	<2.5	0.0695 J	<0.5	<0.5		<0.5
	P93B-ROX-012313	1/23/2013	74.60 - 76.60	45.89	NE	415	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<25 UJ	<1	<5	<5		<5
P-93C	P93C-102610	10/26/2010	94.26 - 96.26	40.69	NE	<0.005	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	P93C-ROX_012611	1/26/2011		40.91	NE	86.5	<0.005	<0.005	<0.005	0.00056 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005		0.0175		<0.005		
	P93C-ROX-050611	5/6/2011		41.84	NE	15.7	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0029	<0.005	<0.005		<0.005 UJ
	P93C-ROX-081811	8/18/2011		38.79	NE	1.2	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93C-ROX-102611	10/26/2011		39.36	NE	0.0014	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93C-ROX-012012	1/20/2012		41.57	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93C-ROX-050812	5/8/2012		42.68	NE	0.0057	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93C-ROX-080912	8/9/2012		43.57	NE	0.00084	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93C-ROX-012313	1/23/2013	94.26 - 96.26	45.78	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025 UJ	<0.001	<0.005	<0.005		<0.005
P-93D	P93D-102610	10/26/2010	Unknown	40.59	NE	0.0429	<0.05	<0.005	<0.005	<0.005	<0.05	<0.005	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005		<0.005		<0.005		
	P93D-ROX-050511	5/5/2011		41.96	NE	0.0287	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005 UJ
	P93D-ROX-081811	8/18/2011		38.94	NE	0.0059	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93D-ROX-102711	10/27/2011		39.59	NE	0.00097	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93D-ROX-012012	1/20/2012	125.75 - 127.75	41.77	NE	0.0513	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93D-ROX-050812	5/8/2012		42.96	NE	0.0056	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93D-ROX-080812	8/8/2012		43.71	NE	0.0134	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93D-ROX-110812	11/8/2012		44.98	NE	0.049	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P93D-ROX-012213	1/22/2013	125.75 - 127.75	44.21	NE	0.106	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.00069 J	<0.005	<0.005		<0.005
P-114	P114-ROX-102811	10/28/2011	32.67 - 52.67	24.73	NE	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P114-ROX-012012	1/20/2012		27.17	NE	0.0011 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P114-ROX-050912	5/9/2012		28.09	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P114-ROX-080912	8/9/2012		29.13	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P114-ROX-110912	11/9/2012		30.90	NE	<0.0005	<0.005 UJ	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	P114-ROX-012313	1/23/2013	32.67 - 52.67	30.22	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025 UJ	<0.001	<0.005	<0.005		<0.005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																	
						Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	4-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,4-Dioxane	Ethylbenzene	Ethyl methacrylate	Hexachlorobutadiene	Hexane	2-Hexanone (Methyl N-Butyl Ketone)
				Screening Values (mg/L)		0.005 [1]	4.2 [1]	0.35 [3]			0.7 [2]	0.005 [1]	0.1 [2]		0.0002 [2]				0.005 [4]	0.7 [1]		0.007 [3]		
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-051412	5/14/2012	40.00 - 50.00	38.82	NE	0.0074	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0167	<0.005	<0.005		<0.005
	ROST3PZ-ROX-080712	8/7/2012		39.00	NE	0.0041	<0.005	<0.005	<0.005	0.00072 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0047	<0.005	<0.005		<0.005
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	0.0052	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0018	<0.005	<0.005		<0.005
	ROST3MW-ROX-012313	1/23/2013	38.18 - 48.18	41.50	NE	0.0051 J	<0.005	0.0028 J	0.0013 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0011 J	<0.025 UJ	0.0296	<0.005	<0.005		<0.005
ROST-4-PZ(C)	ROST4PZ-C-051412	5/14/2012	34.95 - 44.95	39.04	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	<0.001	<0.005	<0.005		<0.005
	ROST4PZ-C-ROX-072512	7/25/2012		39.10	NE	0.0849	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.177	<0.005	<0.005 UJ		<0.005
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	0.0033	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002 UJ	<0.005	<0.005	<0.025	0.0014	<0.005	<0.005		<0.005
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0013	<0.005	<0.005		<0.005
T-12	T12-ROX-102711	10/27/2011	46.46 - 72.46	38.54	NE	1.09	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.25	0.648	<0.05	<0.05		<0.05
	T12-ROX-011912	1/19/2012		41.0	NE	1.51	<0.005	0.0062	0.0022 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0024 J	<0.025	0.285	<0.005	<0.005		<0.005
	T12-ROX-050912	5/9/2012		42.62	NE	1.48	<0.025	<0.025	<0.025	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.13	1.88	<0.025	<0.025		<0.025
	T12-ROX-080212	8/2/2012		41.92	NE	1.64	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05		0.573	<0.05	<0.05		<0.05
	T12-ROX-110512	11/5/2012		43.91	NE	1.71	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.25	1.73	<0.05	<0.05		<0.05
	T12-ROX-011813	1/18/2013	46.46 - 72.46	44.50	NE	2.03	<0.0795 U	0.0056 J	0.0036 J	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	<0.025	<0.13 UJ	0.426	<0.025	<0.025		<0.025

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																
						Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene[5]	n-Propylbenzene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylenes	Xylenes (total)	Acenaphthene
			Screening Values (mg/L)			0.7 [3]	0.070 [1]	0.14 [2]	0.7 [3]	1 [1]	0.0056 [3]	0.07 [2]	0.005 [2]			0.07 [3]	7.0 [2]	10		10 [1]	0.42 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																
MW-01	MW-1-111110	11/11/2010	43.41 - 58.41	36.91	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW-1-111110-Dup	11/11/2010		36.91	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW1-ROX-011711	1/17/2011		37.58	NE	<0.005	0.0032	<0.0063	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	0.0013		<0.0063
	MW1-ROX-042911	4/29/2011		38.37	NE	<0.005	0.0027	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0016	<0.001	0.0016	<0.0063
	MW1-ROX-072711	7/27/2011		35.15	NE	<0.005	0.0055	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW1-ROX-120511	12/5/2011		37.10	NE	<0.005	0.0027	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW1-ROX-011612	1/16/2012	49.98 - 59.98	37.75	NE	<0.005	0.0032	0.000079 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.000077 J
	MW1-ROX-050112	5/1/2012		39.09	NE	<0.005	0.0031	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW1-ROX-073012	7/30/2012		39.39	NE	<0.005	0.0022	0.0001 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW1-ROX-102612	10/26/2012		41.22	NE	R	R	R	R	R	R	R	R		R	R	R	R	R	R	<0.00011
	MW1-ROX-121712	12/17/2012		41.22	NE	<0.005	0.0022	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	NA
	MW1-ROX-011013	1/10/2013	49.98 - 59.98	41.89	NE	<0.005	0.0015	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000024 U
MW-02	MW-2-111010	11/11/2010	47.19 - 62.19	38.12	NE	0.0236 J	<0.025	0.077	0.0354	1.22 D	<0.025	<0.025	<0.025		0.273	0.0618	<0.25	1.14	0.318		<0.01
	MW2-ROX-011711	1/17/2011		38.67	NE	0.0617	<0.001	0.0312	0.0652	0.737	<0.005	<0.005	<0.001		0.279	0.0744	<0.005	0.892	0.191		<0.0048
	MW02-ROX-051011	5/10/2011		39.14	NE	0.0539	<0.001	0.0545 J	0.0669	3.51	<0.005	<0.005	<0.001		0.339	0.103	<0.005	2.05	0.549	2.6	<0.0001 UJ
	MW2-ROX-072711	7/27/2011		36.36	NE	0.0995	<0.01	0.0671	0.111	4.69	<0.05	<0.05	<0.01		0.338	0.116	<0.05	2.91	0.823	3.74	<0.0001
	MW2-ROX-072711-DUP	7/27/2011		36.36	NE	0.0967	<0.01	0.0659	0.1	4.67	<0.05	<0.05	<0.01		0.298	0.108	<0.05	2.63	0.728	3.36	<0.0001
	MW2-ROX-112811	11/28/2011	51.32 - 61.32	38.03	NE	0.128	<0.001	0.0777	0.146	0.0328	<0.005	<0.005	<0.001		0.407	0.212	<0.005	0.747	0.0574	0.804	<0.0001
	MW2-ROX-011612	1/16/2012		38.89	NE	0.0832	<0.005	0.0859	0.0993	0.0375	<0.025	<0.025	<0.005		0.388	0.162	<0.025	0.857	0.056	0.913	0.000057 J
	MW2-ROX-050112	5/1/2012		40.25	NE	0.0886	<0.005	0.0497	0.119	0.0445	<0.025	<0.025	<0.005		0.413	0.154	<0.025	1.14	0.0797	1.22	<0.0001
	MW2-ROX-073012	7/30/2012		40.60	NE	0.0818	<0.001	0.0554	0.116	0.0374	<0.005	<0.005	<0.001		0.338	0.135	<0.005	1.27	0.0906	1.34	0.000051 J
	MW2-ROX-102612	10/26/2012		42.35	NE	0.0764	0.0115	0.0821	0.104	0.0216	<0.025	<0.025	<0.005		0.299	0.129	<0.025	0.878	0.052	0.93	0.000093 J
	MW2-ROX-011113	1/11/2013	51.32 - 61.32	42.94	NE	0.0879	<0.002	0.0768	0.121	0.0093	<0.01	<0.01	<0.002		0.219	0.105	<0.01	0.685	0.0287	0.713	0.00016
MW-03	MW-3-111210	11/12/2010	30.98 - 45.98	24.05	NE	0.0016 J	<0.005	<0.01	0.00622	0.00257 J	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	0.00653 J	<0.005		<0.01
	MW3-ROX-011811	1/18/2011		24.92	NE	<0.005	0.0021	<0.0053	<0.005	<0.001	<0.005	<0.005	<0.001		0.00085 J	<0.005	<0.005	0.0012	0.0014		<0.0053
	MW03-ROX-051011	5/10/2011		24.79	NE	<0.005	0.0026	0.00011 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0022	<0.001	0.0022	<0.0001 UJ
	MW3-ROX-080311	8/3/2011		22.40	NE	0.0012 J	<0.001	<0.000083 U	<0.005	0.0015	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000095
	MW3-ROX-112911	11/29/2011	34.67 - 44.67	24.06	NE	<0.005	0.0014	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW3-ROX-112911-DUP	11/29/2011		24.06	NE	<0.005	0.0014	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW3-ROX-011612	1/16/2012		24.93	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW3-ROX-043012	4/30/2012		26.19	NE	<0.005	0.0039	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW3-ROX-072712	7/27/2012		26.60	NE	<0.005	<0.001	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.005	0.0027	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW3-ROX-010913	1/9/2013	34.67 - 44.67	29.35	NE	<0.005	0.0008 J	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	0.007	<0.001	<0.001	<0.001	<0.0001
	MW-4-111210	11/12/2010	42.63 - 57.63	35.38	NE	0.00271 J	0.00508	<0.009	0.00395 J	0.0157	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	0.00699 J	0.00139 J		<0.009
	MW4-ROX-011811	1/18/2011		36.04	NE	0.002 J	0.007	<0.0052	0.0022 J	0.0071	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0062	0.0021		<0.0052
	MW04-ROX-051111	5/11/2011		36.19	NE	0.0036 J	0.0096	<0.0001 UJ	0.0037 J	0.0125	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0096	0.0016	0.0111	<0.0001 UJ
	MW4-ROX-072611	7/26/2011		33.65	NE	0.0088	0.0113	0.00025	0.0085	0.017	<0.005	<0.005	<0.001		<0.005	0.0052	<0.005	0.0067	<0.001	0.0067	<0.0001
	MW4-ROX-072611-DUP	7/26/2011		33.65	NE	0.0088	0.0103	0.00021	0.0083	0.0162	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0063	<0.001	0.0063	<0.0001
	MW4-ROX-121511	12/15/2011		33.99	NE	<0.005	0.0073 J	0.00023	<0.005	0.0092	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0069	0.001	0.0079	<0.0001
	MW4-ROX-011612	1/16/2012		36.00	NE	0.0061	<0.001	<0.0001	0.0061	0.0283	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0148	0.0025	0.0173	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																
						Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene[5]	n-Propylbenzene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylenes	Xylenes (total)	Acenaphthene
			Screening Values (mg/L)			0.7 [3]	0.070 [1]	0.14 [2]	0.7 [3]	1 [1]	0.0056 [3]	0.07 [2]	0.005 [2]			0.07 [3]	7.0 [2]	10		10 [1]	0.42 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																
MW-04	MW4-ROX-050312	5/3/2012	46.06 - 56.06	37.45	NE	0.0038 J	0.0174	<0.0001	<0.005	0.0255	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.016	0.003	0.0189	<0.0001
	MW4-ROX-050312-DUP	5/3/2012		37.45	NE	0.0036 J	0.0162	<0.0001	0.0043 J	0.0252	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0151	0.0031	0.0182	<0.0001
	MW4-ROX-072512	7/25/2012		37.63	NE	0.0061	0.015	<0.0001	0.0071	0.0418	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0221	0.0042	0.0262	<0.0001
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	0.0063	0.0154	<0.0001	0.0072	0.0427	<0.005	<0.005	<0.001		0.00068 J	0.0057	<0.005	0.0214	0.0043	0.0257	<0.0001
	MW4-ROX-102912	10/29/2012		39.45	NE	0.0029 J	0.0324	<0.01	0.0033 J	0.0175	<0.01	<0.01	<0.002		<0.01	<0.01	<0.01	0.0114	<0.002	0.0114	<0.0001
	MW4-ROX-011113	1/11/2013	46.06 - 56.06	40.20	NE	0.0012 J	0.0654	<0.005	0.0026 J	0.0075	<0.005	<0.005	<0.001		0.0019 J	0.0024 J	<0.005	0.0056	<0.001	0.0056	<0.00011
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	0.0014 J	0.0681	<0.005	0.003 J	0.0083	<0.005	<0.005	<0.001		0.0019 J	0.0026 J	<0.005	0.006	<0.001	0.006	<0.00012
	MW4-ROX-030413	3/4/2013		40.20	NE	<0.5	0.112	<0.5	<0.5	<0.1	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	NA
MW-05	MW-5-111210	11/12/2010	31.13 - 46.13	23.32	NE	<0.005	0.00556	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	0.00277 J	<0.005		<0.01
	MW5-ROX-011811	1/18/2011		24.15	NE	<0.005	0.0066	<0.0053	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.00087 J	0.0014		<0.0053
	MW05-ROX-051211	5/12/2011		23.98	NE	<0.005	0.0085	<0.00011 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	0.0035	<0.001	0.0035	<0.00011 UJ
	MW5-ROX-072611	7/26/2011		21.72	NE	0.0161	0.0031	<0.0001 U	0.0105	0.0017	<0.005	<0.005	<0.001		<0.005	0.0055	<0.005	0.0074	<0.001	0.0074	<0.0001
	MW5-ROX-072611-DUP	7/26/2011		21.72	NE	0.016	0.0031	<0.00015 U	0.0104	0.0016	<0.005	<0.005	<0.001		<0.005	0.0055	<0.005	0.0068	<0.001	0.0068	<0.0001
	MW5-ROX-112111	11/21/2011	33.97 - 43.97	23.46	NE	<0.005	0.0069	<0.00014 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW5-ROX-011712	1/17/2012		24.76	NE	<0.005	0.0187	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.00081 U	<0.00011
	MW5-ROX-050312	5/3/2012		25.89	NE	0.001 J	0.022	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW5-ROX-072512	7/25/2012		26.18	NE	0.0066	0.013	0.00032	0.0018 J	0.0032	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.008	0.0017	0.0097	<0.0001
	MW5-ROX-102912	10/29/2012		28.16	NE	0.002 J	0.0219	<0.005	<0.005	0.0018	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0018	<0.001	0.0018	<0.0001
	MW5-ROX-011113	1/11/2013	33.97 - 43.97	28.75	NE	0.00086 J	0.0295	<0.005	<0.005	0.0008 J	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.000071 J
MW-06A	MW-6A-110910	11/9/2010	31.98 - 46.98	25.62	NE	<0.005	0.0203	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW6A-ROX-011911	1/19/2011		26.36	NE	<0.005	0.0181	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001		<0.005
	MW6A-ROX-051611	5/16/2011		26.10	NE	<0.005	0.0277	<0.0001 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001 UJ
	MW6A-ROX-072611	7/26/2011		24.07	NE	<0.005	0.0237	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.00024
	MW6A-ROX-112111	11/21/2011	34.83 - 44.83	25.49	NE	<0.005	0.0169	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6A-ROX-112111-DUP	11/21/2011		25.49	NE	<0.005	0.0181	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6A-ROX-011712	1/17/2012		26.74	NE	<0.005	0.0185	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW6A-ROX-050212	5/2/2012		27.77	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6A-ROX-080112	8/1/2012		28.36	NE	<0.005	0.0019	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW6A-ROX-011413	1/14/2013	34.83 - 44.83	31.00	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
MW-06B	MW-6B-111610	11/16/2010	64.05 - 69.05	25.47	NE	<0.005	0.00204 J	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW6B-ROX-011911	1/19/2011		26.21	NE	<0.005	0.0016	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001		<0.005
	MW6B-ROX-011911-DUP	1/19/2011		26.21	NE	<0.005	0.0016	<0.0051	<0.005	<0.001	0.0016 J	0.0011 J	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001		<0.0051
	MW6B-ROX-051611	5/16/2011		25.95	NE	<0.005	0.0029	<0.000095 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000095 UJ
	MW6B-ROX-051611-DUP	5/16/2011		25.95	NE	<0.005	0.0031	0.000044 J J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001 UJ
	MW6B-ROX-072311	7/23/2011		23.60	NE	<0.005	0.0049	0.0012 B	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
	MW6B-ROX-110311	11/3/2011		24.67	NE	<0.05	0.036 J	<0.0001	<0.05	<0.01	<0.05	<0.05	<0.01		<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.0001
	MW6B-ROX-011712	1/17/2012		26.77	NE	<0.005	0.0049	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW6B-ROX-050212	5/2/2012		27.82	NE	<0.005	0.0115	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6B-ROX-080112	8/1/2012		28.39	NE	<0.005	0.0122	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6B-ROX-102412	10/24/2012		30.11	NE	<0.005	0.0091	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6B-ROX-011713	1/17/2013	64.05 - 69.05	31.11	NE	<0.005	0.0166	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
MW-06C	MW-6C-111610	11/16/2010	84.95 - 89.95	25.25	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW6C-ROX-012111	1/21/2011		25.97	NE	<0.005	0.0021	<0.0053	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001		<0.0053
	MW6C-ROX-051611	5/16/2011		25.76	NE	<0.005	0.0034	<0.0001 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001 UJ
	MW6C-ROX-072411	7/24/2011		23.43	NE	<0.005	0.0027	0.00075 B	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
	MW6C-ROX-110311	11/3/2011		24.47	NE	<0.005	0.0039 J	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6C-ROX-011712	1/17/2012		26.50	NE	<0.005	<0.001	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW6C-ROX-050212	5/2/2012		27.62	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6C-ROX-080112	8/1/2012		28.15	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																
						Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene[5]	n-Propylbenzene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylenes	Xylenes (total)	Acenaphthene
			Screening Values (mg/L)			0.7 [3]	0.070 [1]	0.14 [2]	0.7 [3]	1 [1]	0.0056 [3]	0.07 [2]	0.005 [2]			0.07 [3]	7.0 [2]	10		10 [1]	0.42 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6C-ROX-011713	1/17/2013	84.95 - 89.95	30.88	NE	<0.005 UJ	0.0012 J	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.0001
MW-06D	MW-6D-111610	11/16/2010	104.72 - 109.72	25.13	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW6D-ROX-012111	1/21/2011		25.87	NE	<0.005	<0.001	<0.0053	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001		<0.0053
	MW6D-ROX-051611	5/16/2011		25.60	NE	<0.005	<0.001	<0.00011 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011 UJ
	MW6D-ROX-072311	7/23/2011		23.29	NE	<0.005	<0.001	0.00074 B	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
	MW6D-ROX-110311	11/3/2011		24.31	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6D-ROX-011712	1/17/2012		26.33	NE	<0.005	<0.001	<0.00016 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW6D-ROX-050212	5/2/2012		27.45	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6D-ROX-080212	8/2/2012		30.56	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW6D-ROX-011713	1/17/2013	104.72 - 109.72	30.75	NE	<0.005 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.0001
MW-07	MW-7-111710	11/17/2010	42.92 - 52.92	36.93	NE	<1.25	<1.25	0.004 J	<1.25	<1.25	<1.25	<1.25	<1.25		<1.25	<1.25	<12.5	<2.5	<1.25		<0.01
	MW-7-111710-Dup	11/17/2010		36.93	NE	<1.25	<1.25	0.005 J	<1.25	<1.25	<1.25	<1.25	<1.25		<1.25	<1.25	<12.5	<2.5	<1.25		<0.01
	MW7-ROX-012511	1/25/2011		37.52	NE	0.004 J J	<0.0057 U	0.0058	0.0058 J	0.0907 J	<0.005 UJ	<0.005 UJ	<0.001 UJ		0.0552 J	0.0133 J	<0.005 UJ	0.0694 J	0.0235 J		<0.0053
	MW07-ROX-051311	5/13/2011		37.50	NE	0.0061 J	0.0109 J	0.0114 J	0.0078 J	0.128 J	<0.005 UJ	<0.005 UJ	<0.001 UJ		0.0822 J	0.0193 J	<0.005 UJ	0.101 J	0.0418 J	0.143 J	0.00011 J
	MW07-ROX-051311D	5/13/2011		37.50	NE	0.006	0.012	0.011 J	0.0078	0.126	<0.005	<0.005	<0.001		0.0825	0.0193	<0.005	0.0984	0.0405	0.139	0.00011 J
	MW7-ROX-072411	7/24/2011		35.22	NE	<25	<5	0.0081	<25	<5	<25	<25	<5		<25	<25	<25 UJ	<5	<5	<5	0.0001 J
	MW-7-ROX-110211	11/2/2011		35.95	NE	<5	<1	0.0113	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1	<0.00026 U
	MW7-ROX-011812	1/18/2012		38.10	NE	0.0101	0.0022	0.0134	0.0135	0.158	<0.005	<0.005	<0.001		0.148	0.0341	<0.005	0.137	0.0527	0.19	0.00025
	MW7-ROX-011812-DUP	1/18/2012		38.10	NE	0.01	0.0024	0.0138	0.0138	0.156	<0.005	<0.005	<0.001		0.146	0.0332	<0.005	0.134	0.051	0.184	0.00027
	MW7-ROX-050412	5/4/2012		39.19	NE	<0.5	<0.1	0.0158	<0.5	0.101	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	0.00028
	MW7-ROX-080712	8/7/2012		39.50	NE	<0.05	<0.01	0.0089	0.0102 J	0.0629	<0.05	<0.05	<0.01		0.1	0.021 J	<0.05	0.12	0.0486	0.169	0.00024
	MW7-ROX-103012	10/30/2012		41.23	NE	<10	<2	<10	<10	<2	<10	<10	<2		<10	<10	<10	<2	<2	<2	0.00031
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	<10	<2	<10	<10	<2	<10	<10	<2		<10	<10	<10	<2	<2	<2	0.00034
	MW7-ROX-011513	1/15/2013	42.92 - 52.92	42.21	NE	<20	<4	<20	<20	<4	<20	<20	<4		<20	<20	<20	<4	<4	<4	0.00073
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	<20	<4	<20	<20	<4	<20	<20	<4		<20	<20	<20	<4	<4	<4	0.00066
MW-08	MW-8-111710	11/17/2010	33.60 - 43.60	27.84	NE	<1.25	<1.25	0.023	<1.25	0.328 J	<1.25	<1.25	<1.25		<1.25	<1.25	<12.5	<2.5	<1.25		<0.01
	MW8-ROX-012511	1/25/2011		28.59	NE	0.0104 J	0.21 J	0.026	0.0173 J	1.2 E J	<0.005 UJ	<0.005 UJ	<0.001 UJ		0.109 J	0.0332 J	<0.005 UJ	0.499 J	0.188 J		<0.005
	MW8-ROX-012511-DUP	1/25/2011		28.59	NE	0.0105 J	0.205 J	0.0288	0.017 J	1.12 E J	<0.005 UJ	<0.005 UJ	<0.001 UJ		0.11 J	0.0336 J	<0.005 UJ	0.518 J	0.191 J		<0.0057
	MW08-ROX-051311	5/13/2011		28.35	NE	<50	<10	0.0241 J	<50	<10	<50	<50	<10		<50	<50	<50	<10	<10	<10	0.00035 J
	MW08-ROX-051311D	5/13/2011		28.35	NE	<5	0.657 J	0.0288 J	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1	0.00029 J
	MW8-ROX-072411	7/24/2011		26.02	NE	<25	<5	0.0237	<25	<5	<25	<25	<5		<25	<25	<25 UJ	<5	<5	<5	0.00029
	MW8-ROX-072411-DUP	7/24/2011		26.02	NE	<25	<5	0.023	<25	<5	<25	<25	<5		<25	<25	<25 UJ	<5	<5	<5	0.00027
	MW-8-ROX-110211	11/2/2011		27.02	NE	<5	4.94 J	0.0282	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1	<0.00023 U
	MW8-ROX-011812	1/18/2012		29.15	NE	0.0162	1.41 J	0.0239	0.0377	<2	<0.005	<0.005	<0.001		0.163	0.061	<0.005	0.574	0.219	0.794	0.00038 J
	MW8-ROX-050412	5/4/2012		30.21	NE	<0.5	4.15	0.0186	<0.5	1.55	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	0.978	0.37	1.35	<0.00011
	MW8-ROX-050412-DUP	5/4/2012		30.21	NE	<0.5	4.07	0.0188	<0.5	1.52	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	0.939	0.381	1.32	<0.0001
	MW8-ROX-080712	8/7/2012		30.97	NE	<0.1	0.878	0.0164	0.0191 J	0.781	<0.1	<0.1	<0.02		0.104	0.0299 J	<0.1	0.623	0.246	0.868	0.00023
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	<0.05	0.885	0.0164	0.0176 J	0.729	<0.05	<0.05	<0.01		0.0921	0.0265 J	<0.05	0.598	0.235	0.833	0.0002
	MW8-ROX-103012	10/30/2012		32.32	NE	<5	<1	<5	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1	0.00026
	MW8-ROX-011513	1/15/2013	33.60 - 43.60	33.30	NE	<10	<2	<10	<10	2.09	<10	<10	<2		<10	<10	<10	<2	<2	<2	0.00017
MW-09	MW-9-111510	11/15/2010	46.45 - 56.45	39.00	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW9-ROX-012111	1/21/2011		39.62	NE	<0.005	<0.001	<0.0053	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001		<0.0053
	MW09-ROX-050611	5/6/2011		40.12	NE	<0.005	<0.001	<0.000097 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000097 UJ
	MW9-ROX-072311	7/23/2011		37.27	NE	<0.005	<0.001	0.001 B	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
	MW9-ROX-110111	11/1/2011		37.78	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW9-ROX-011612	1/16/2012		39.50	NE	<0.005	<0.001	0.000062 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW9-ROX-050312	5/3/2012		41.03	NE	<0.005	<0.001		<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	
	MW9-ROX-072712	7/27/2012		41.30	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.0001
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW9-ROX-011113	1/11/2013	46.45 - 56.45	43.90	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.000068 J
	MW-10-111010	11/10/2010		38.97	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW10-ROX-012411	1/24/2011		39.40	NE	<0.005	<0.001	<0.0051	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001		<0.0051
	MW10-ROX-012411-DUP	1/24/2011		39.40	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001		<0.005
	MW10-ROX-042811	4/28/2011		40.20	NE	<0.005	<0.001	<0.0048	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0048
	MW10-ROX-072311	7/23/2011		37.24	NE	<0.005	<0.001	0.00062 B	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																
						Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene[5]	n-Propylbenzene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylenes	Xylenes (total)	Acenaphthene
			Screening Values (mg/L)			0.7 [3]	0.070 [1]	0.14 [2]	0.7 [3]	1 [1]	0.0056 [3]	0.07 [2]	0.005 [2]			0.07 [3]	7.0 [2]	10		10 [1]	0.42 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																
MW-10	MW10-ROX-110111	11/1/2011	44.43 - 54.43	37.72	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW10-ROX-011612	1/16/2012		39.28	NE	<0.005	<0.001	0.000047 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW10-ROX-050112	5/1/2012		40.86	NE	<0.005	<0.001	0.000052 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW10-ROX-072712	7/27/2012		41.21	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.0001
	MW10-ROX-102612	10/26/2012		43.08	NE	R	R	R	R	R	R	R	R		R	R	R	R	R	R	<0.00011
	MW10-ROX-121712	12/17/2012		43.08	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	0.00058 J	NA
	MW10-ROX-011013	1/10/2013	44.43 - 54.43	44.10	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	0.016	<0.001	<0.001	<0.001	<0.0001
	MW10-ROX-012113	1/21/2013		44.10	NE	<0.005	<0.002	<0.0001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	NA	<0.0001
MW-11	MW-11-111710	11/17/2010	41.66 - 51.66	36.39	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW11-ROX-012411	1/24/2011		37.15	NE	<0.005	<0.001	<0.0052	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001		<0.0052
	MW11-ROX-050611	5/6/2011		37.60	NE	<0.005	<0.001	<0.000095 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000095 UJ
	MW11-ROX-072411	7/24/2011		34.68	NE	<0.005	<0.001	0.00027 B	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
	MW-11-ROX-110211	11/2/2011		35.44	NE	<0.005	0.003 J	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW11-ROX-011712	1/17/2012		37.44	NE	<0.005	<0.001		<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	
	MW11-ROX-043012	4/30/2012		38.66	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW11-ROX-072712	7/27/2012		38.90	NE	<0.005	<0.001	<0.00012	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00012
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW11-ROX-011013	1/10/2013	41.66 - 51.66	41.43	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001 UJ
MW-12	MW-12-111510	11/15/2010	41.92 - 51.92	36.63	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	MW12-ROX-012411	1/24/2011		37.42	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001		<0.005
	MW12-ROX-051211	5/12/2011		37.58	NE	<0.005	<0.001	<0.0001 UJ	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.0001 UJ
	MW12-ROX-072411	7/24/2011		34.88	NE	<0.005	<0.001	0.00098 B	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW-12-ROX-110211	11/2/2011		35.70	NE	<0.005	<0.001	<0.000095	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000095
	MW-12-ROX-110211-DUP	11/2/2011		35.70	NE	<0.005	<0.001	<0.000095	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000095
	MW12-ROX-011712	1/17/2012		37.70	NE	<0.005	<0.001	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW12-ROX-011712-DUP	1/17/2012		37.70	NE	<0.005	<0.001	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW12-ROX-043012	4/30/2012		38.98	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW12-ROX-072712	7/27/2012		39.22	NE	<0.005	<0.001	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW12-ROX-011013	1/10/2013	41.92 - 51.92	41.83	NE	<0.005	<0.001	<0.005	<0.005	0.00089 J	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
MW-13	MW13-ROX-012511	1/25/2011	25.57 - 35.57	24.28	NE	<0.005	<0.001	<0.0052	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001		<0.0052
	MW13-ROX-051311	5/13/2011		23.65	NE	<0.005	0.0061 J	<0.000095 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.000099 UJ
	MW13-ROX-080311	8/3/2011		21.88	NE	<0.005	0.004	<0.000045 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW13-ROX-110311	11/3/2011		22.85	NE	<0.005	0.0156 J	0.00017	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW13-ROX-012012	1/20/2012		24.77	NE	<0.005	0.0066 J	0.00021	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW13-ROX-050712	5/7/2012		25.79	NE	<0.005	0.0083	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW13-ROX-080812	8/8/2012		26.67	NE	<0.005 UJ	0.0133 J	<0.0013 U	<0.005 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ	0.0001 J
	MW13-ROX-110812	11/8/2012		25.30	NE	<0.005	0.0093	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	MW13-ROX-012313	1/23/2013	25.57 - 35.57	29.26	NE	<0.005	0.0082	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
MW-14	MW14-ROX-110911	11/9/2011	Unknown			<0.005	<0.001	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	MW14-ROX-051012	5/10/2012				0.0104	<0.001	0.00099	0.0078	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0016	0.00041 J	0.002	0.00046
	MW14-ROX-080312	8/3/2012	33.42 - 43.42	29.87	NE	0.0173	<0.001	0.0013	0.0137	0.00093 J	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0033	0.00061 J	0.0039	0.00095
	MW14-ROX-103112	10/31/2012		32.02	NE	0.0161	<0.001	<0.005	0.0121	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0024	<0.001	0.0024	0.00074
	MW14-ROX-011813	1/18/2013	33.42 - 43.42	33.05	NE	0.021	<0.001	<0.005	0.0162	0.00097 J	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0026	<0.001	0.003	0.00092
MW-16	MW16-ROX-012313	1/23/2013	37.43 - 47.43	43.05	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
MW-22	MW22-ROX-012313	1/23/2013	38.21 - 48.21	41.80	NE	0.126 J	<0.05	0.396	0.22 J	10.5	<0.25	<0.25	<0.05		1.23	0.288	<0.25 UJ	7.56	3.73	11.3	0.00018
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	0.124 J	<0.05	0.377	0.234 J	9.06	<0.25	<0.25	<0.05		1.26	0.291	<0.25 UJ	6.96	3.52	10.5	0.00018
P-54	P-54-111710	11/17/2010	38.00 - 63.00	36.43	NE	<0.005	<0.005	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	P54-ROX-012411	1/24/2011		37.24	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001		<0.005
	P54-ROX-051111	5/11/2011		37.37	NE	<0.005	<0.001	0.00013 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011 UJ
	P54-ROX-072411	7/24/2011		34.78	NE	<0.005	<0.001	0.000066 JB	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P54-ROX-110311	11/3/2011		35.49	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P54-ROX-011712	1/17/2012		37.17	NE	<0.005	<0.001	<0.000089 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P54-ROX-050412	5/4/2012		38.77	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P54-ROX-080212	8/2/2012		38.95	NE	<0.005	<0.001	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	P54-ROX-103012	10/30/2012		40.70	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																
						Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene[5]	n-Propylbenzene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylenes	Xylenes (total)	Acenaphthene
Screening Values (mg/L)						0.7 [3]	0.070 [1]	0.14 [2]	0.7 [3]	1 [1]	0.0056 [3]	0.07 [2]	0.005 [2]			0.07 [3]	7.0 [2]	10		10 [1]	0.42 [2]
Location	**Sample ID**	**Sample Date**	**Screened Interval (ft btoc)**	**Depth to Water (ft btoc)**	**Product Thickness (ft)**	**ANALYTICAL RESULTS (mg/L)**															
	P54-ROX-011113	1/11/2013	38.00 - 63.00	41.56	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
P-55	P55-ROX-103111	10/31/2011	39.82 - 64.82	39.15	NE	<0.005	0.0012	0.0015	<0.005	0.029	<0.005	<0.005	<0.001		0.0067	0.0056	<0.005	0.0466	0.0163	0.0629	<0.0001
	P55-ROX-011912	1/19/2012		41.09	NE	0.0105 J	<0.001	0.0197	0.0173	0.0337	<0.005	<0.005	<0.001		0.017	0.009	<0.005	0.205	0.0663	0.271	0.00017
	P55-ROX-011912-D	1/19/2012		41.09	NE	0.0105 J	<0.001	0.0169	0.0176	0.0359	<0.005	<0.005	<0.001		0.0179	0.0097	<0.005	0.21	0.0649	0.275	0.00015
	P55-ROX-050912	5/9/2012		42.44	NE	0.0392	<0.001	0.0271	0.0699	0.227	<0.005	<0.005	<0.001		0.158	0.0368	<0.005	0.885	0.112	0.97	0.00036
	P55-ROX-012113	1/21/2013	40.85 - 50.85	43.60	NE	0.0678	<0.02	0.079 J	0.14	0.189	<0.05	<0.01	<0.05	0.183	0.039 J	0.026 J	<0.1	0.279	0.347	NA	0.00069
	P55-ROX-012113	1/21/2013		43.60	NE	0.0937	0.002	0.12	0.206	0.262	<0.005	<0.005	<0.001		0.046	0.0312	<0.005	0.356	0.382	0.738	0.00054
P-56	P56-ROX-102711	10/27/2011	40.82 - 65.82	39.42	NE	0.0512	<0.001	0.067	0.0463	0.0422	<0.005	<0.005	<0.001		0.0962	0.0226	<0.005	0.476	0.0332	0.509	0.0007
	P56-ROX-011912	1/19/2012		41.81	NE	0.0787 J	<0.001	0.0596	0.0697	0.023	<0.005	<0.005	<0.001		0.0229	0.0077	<0.005	0.202	0.0161	0.218	0.00064
	P56-ROX-050812	5/8/2012		43.09	NE	0.0876	<0.001	0.0667	0.111	0.197	<0.005	<0.005	<0.001		0.312	0.0708	<0.005	1.37	0.197	1.53	0.00057
	P56-ROX-080612	8/6/2012		43.60	NE	0.0442	<0.005	0.0197	0.0439	0.0109	<0.025 UJ	<0.025 UJ	<0.005		0.0131 J	0.005 J	<0.025 UJ	0.11	0.0083	0.118	0.00058
	P56-ROX-103112	10/31/2012		44.80	NE	0.0752	<0.001	0.167	0.105	0.187	<0.005	<0.005	<0.001		0.387	0.0901	<0.005	1.62	0.144	1.73	0.0011
	P56-ROX-011713	1/17/2013	40.82 - 65.82	45.65	NE	0.0398	<0.005	0.0322	0.0456	0.0119	<0.025	<0.025	<0.005		0.0172 J	0.0092 J	<0.025	0.0745	<0.005	0.0745	0.00039
P-57	P57-ROX-110811	11/8/2011	40.46 - 65.46	39.20	NE	<0.5	0.221	0.152	<0.5	<0.1	<0.5	<0.5	<0.1		0.615	<0.5	<0.5	1.02	<0.1	1.02	0.00055
	P57-ROX-021312	2/13/2012		42.13	NE	<2.5	<0.5	0.271 J	<2.5	<0.5	<2.5	<2.5	<0.5		<2.5	<2.5	<2.5	0.502	<0.5	0.502	0.00056
	P57-ROX-050712	5/7/2012		42.92	NE	<0.5	0.453	0.0894	<0.5	<0.1	<0.5	<0.5	<0.1		0.632	0.159 J	<0.5	0.928	0.0563 J	0.984	0.00033
	P57-ROX-080612	8/6/2012		43.53	NE	<0.25	0.238	0.119	<0.25	0.0577	<0.25	<0.25	<0.05		0.506	0.123 J	<0.25 UJ	0.74	0.0328 J	0.773	0.00056
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	0.0432	0.212	0.115	0.0519	0.0558	<0.005	<0.005	<0.001		0.505 E	0.137	<0.005 UJ	0.692	0.0348	0.727	0.00051
	P57-ROX-110512	11/5/2012		44.98	NE	<2.5	<0.5	1.53 J	<2.5	<0.5	<2.5	<2.5	<0.5		0.577 J	<2.5	<2.5	1.03	<0.5	1.03	0.00053
	P57-ROX-012913	1/29/2013	40.46 - 65.46	45.92	NE	<2.5	<0.5	<2.5	0.331 J	<0.5	<2.5	<2.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5	0.00061
P-58	P58-ROX-102811	10/28/2011	40.21 - 65.21	37.31	NE	0.0734	<0.001	0.204	0.0862	0.13	<0.005	<0.005	<0.001		<25	0.104	<0.005	0.575	0.101	0.677	0.0011
	P58-ROX-011912	1/19/2012		39.73	NE	0.108 J	0.0082	0.212	0.129 J	0.155 J	<0.005	<0.005	<0.001			0.14 J	0.0408 J	0.679	0.108	0.787	0.001
	P58-ROX-011912-D	1/19/2012		39.73	NE	0.0832 J	0.0101 J	0.191 J	0.0993 J	0.119 J	<0.005	<0.005	<0.001		<5	0.11	<0.005 UJ	<1	<1	<1	0.00092
	P58-ROX-050712	5/7/2012		40.90	NE	<0.5	<0.1	0.112 J	0.106 J	0.137	<0.5	<0.5	<0.1		0.776	0.108 J	<0.5	0.666	0.0982 J	0.764	0.00059
	P58-ROX-050712-DUP	5/7/2012		40.90	NE	<0.5	<0.1	0.0697 J	0.108 J	0.145	<0.5	<0.5	<0.1		0.757	0.109 J	<0.5	0.636	0.0968 J	0.733	0.00044
	P58-ROX-080612	8/6/2012		41.63	NE	0.0649 J	<0.02	0.142	0.0909 J	0.117	<0.1	<0.1	<0.02		0.705	0.0955 J	<0.1 UJ	0.652	0.0976	0.749	0.00086
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	0.0718	<0.01	0.15	0.0996	0.128	<0.05	<0.05	<0.01		0.737	0.102	<0.05	0.656	0.104	0.759	0.00098
	P58-ROX-110612	11/6/2012		43.09	NE	<0.5	<0.1	<0.5	<0.5	0.124	<0.5	<0.5	<0.1		0.658	0.108 J	<0.5	0.544	0.0807 J	0.624	R
	P58-ROX-121012	12/10/2012		43.09	NE	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	0.00093
	P58-ROX-012213	1/22/2013	40.21 - 65.21	44.21	NE	<5	<1	<5	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	0.728 J	0.0011
P-59	P59-ROX-102711	10/27/2011	47.91 - 72.91	41.06	NE	<0.25	<0.05	0.0793	<0.25	0.321	<0.25	<0.25	<0.05		0.477	<0.25	<0.25	3.11	0.312	3.42	0.00077
	P59-ROX-011912	1/19/2012		42.88	NE	0.0713	<0.001	0.18	0.128	0.896	<0.005	<0.005	<0.001		0.483 J	0.198	<0.005	3.03	0.587	3.62	0.00036
	P59-ROX-011912-DUP	1/19/2012		42.88	NE	0.0733	<0.001	0.183	0.133	0.931	<0.005	<0.005	<0.001		0.536	0.203	<0.005	3.21	0.587	3.8	0.00037
	P59-ROX-050912	5/9/2012		44.11	NE	0.0585 J	<0.05	0.0925	0.123 J	2.35	<0.25	<0.25	<0.05		0.67	0.171 J	<0.25	4.56	1.08	5.64	0.00022
	P59-ROX-080212	8/2/2012		44.07	NE	0.0452 J	<0.02	0.0886	0.0974 J	0.506	<0.1	<0.1	<0.02		0.563	0.158	<0.1	4.35	0.376	4.73	0.00042
	P59-ROX-110212	11/2/2012		45.98	NE	<0.5	<0.1	<0.5	0.105 J	1.09	<0.5	<0.5	<0.1		0.558	0.154 J	<0.5	4.49	0.686	5.17	0.00043
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	<0.5	<0.1	<0.5	0.111 J	1.1	<0.5	<0.5	<0.1		0.592	0.167 J	<0.5	4.68	0.721	5.4	0.00042
	P59-ROX-013013	1/30/2013	47.91 - 72.91	46.60	NE	0.0455 J	<0.05 UJ	0.376	0.085 J	0.296	<0.25	<0.25	<0.05		0.563	0.0491 J	<0.25	4.19	0.264	4.45	0.00047
P-66	P66-ROX-110111	11/1/2011	34.72 - 59.72	28.92	NE	0.158	0.0845 J	0.0091	0.188	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.0018
	P66-ROX-051012	5/10/2012		32.48	NE	0.123	0.0771	<0.0001	0.152	0.0021	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0012	0.0012	0.0024	0.00078
	P66-ROX-080312	8/3/2012		30.51	NE	0.0874	0.103	0.0013	0.112	0.0013	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0011	0.0011	0.0022	0.00073
	P66-ROX-103112	10/31/2012		34.75	NE	0.122	0.0733	<0.005	0.156	0.0014	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.00078
	P66-ROX-011813	1/18/2013	34.72 - 59.72	35.70	NE	0.146	0.104	<0.005	0.193	0.0015	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	0.00093 J	0.00093 J	0.00074
P-74	P74-ROX-103111	10/31/2011	44.43 - 69.43	36.26	NE	0.0123	0.0222	0.0673	0.0222	0.669	<0.005	<0.005	<0.001		0.587	0.162	<0.005	0.177	<0.1	0.177	0.00033
	P74-ROX-011912	1/19/2012		38.77	NE	<0.005	<0.001	0.0158	0.0012 J	0.0038	<0.005	<0.005	<0.001		0.0292	0.0126	<0.005	0.0526	0.0262	0.0788	<0.000095
	P74-ROX-050712	5/7/2012		39.92	NE	<0.005	<0.001	0.00024	0.001 J	0.0017	<0.005	<0.005	<0.001		0.0155	0.0063	<0.005	0.0273	0.0093	0.0366	<0.0001
	P74-ROX-080612	8/6/2012		40.71	NE	<0.05	<0.01	0.0177	<0.05	0.159	<0.05	<0.05	<0.01		0.187	0.0663	<0.05 UJ	0.388	0.125	0.512	0.00016
	P74-ROX-110112	11/1/2012		41.72	NE	<0.1	<0.02	0.0834 J	<0.1	0.232	<0.1	<0.1	<0.02		0.125	0.0414 J	<0.1	0.246	0.0811	0.328	0.00023
	P74-ROX-011713	1/17/2013	44.43 - 69.43	42.65	NE	<0.1	<0.02	0.141	<0.1	0.278	<0.1	<0.1	<0.02		0.249	0.0973 J	<0.1	0.547	<0.02	0.555	0.00019
P-93A	P93A-102610	10/26/2010	48.17 - 63.17	40.75	NE	<1.25	<1.25	0.095 D	<1.25	<1.25	<1.25	<1.25	<1.25		<1.25	<1.25	<12.5	0.543 J	<1.25		<0.009
	P93A-ROX_012611	1/26/2011		40.97	NE	0.0225	0.124	0.0803	0.0254	0.0654	0.0026 J	0.0015 J	0.0017		0.21	0.045	<0.005 UJ	0.622	0.0705		<0.0049
	P93A-ROX-050511	5/5/2011		41.88	NE	0.0206 J	0.0684 J	0.0795 J	0.0228 J	0.0718 J	<0.005	<0.005	<0.001		0.169 J	0.0293 J	<0.005	0.628 J	0.0707 J	0.699 J	0.00026 J
	P93A-ROX-081811	8/18/2011		38.86	NE	0.0236 J	0.0356	0.0868	0.0254	0.0678	<0.005	<0.005	<0.001		0.237	0.0495	<0.005 UJ	0.745	0.09	0.835	0.00036
	P93A-ROX-102611	10/26/2011		39.43	NE	0.0189	0.0405	0.108	0.0172	0.0438	<0.005 UJ	<0.005	<0.001		0.171	0.0399	<0.005	0.482	0.0614	0.543	0.00024
	P93A-ROX-012012	1/20/2012		41.66	NE	0.0134	0.0604	0.059 J	0.0134	0.0196	<0.005	<0.005	<0.001		0.101	0.025	<0.005 UJ	0.292	0.0416	0.333	0.00014

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						VOCs																
						Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene[5]	n-Propylbenzene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylenes	Xylenes (total)	Acenaphthene
			Screening Values (mg/L)			0.7 [3]	0.070 [1]	0.14 [2]	0.7 [3]	1 [1]	0.0056 [3]	0.07 [2]	0.005 [2]			0.07 [3]	7.0 [2]	10		10 [1]	0.42 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																
P-93A	P93A-ROX-050812	5/8/2012		42.75	NE	0.0218 J	0.0557 J	0.0472	0.0239 J	0.0407 J	<0.005 UJ	<0.005 UJ	<0.001 UJ		0.194 J	0.0416 J	<0.005 UJ	0.647 J	0.0841 J	0.731 J	<0.0001
	P93A-ROX-080912	8/9/2012		43.66	NE	0.0126	0.0485	0.0496	0.0137	0.0091	<0.005	<0.005	<0.001		0.145	0.0273	<0.005	0.436	0.0642	0.5	0.00015
	P93A-ROX-110712	11/7/2012		45.00	NE	<0.5	<0.1	<0.5	<0.5	<0.1	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	0.43	0.076 J	0.506	<0.00022 U
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	<0.5	<0.1	<0.5	<0.5	<0.1	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	0.404	0.073 J	0.477	0.00029 B
	P93A-ROX-012313	1/23/2013	48.17 - 63.17	45.89	NE	<2.5	<0.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5		<2.5	<2.5	<2.5 UJ	<0.5	<0.5	<0.5	0.00016
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	<2.5	<0.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5		<2.5	<2.5	<2.5 UJ	<0.5	<0.5	<0.5	0.00014
P-93B	P93B-102610	10/26/2010	74.60 - 76.60	40.73	NE	<0.5	<0.5	<0.009	<0.5	<0.5	<0.5	<0.5	<0.5		<0.5	<0.5	<5	<1	<0.5		<0.009
	P93B-ROX_012611	1/26/2011		41.03	NE	0.0108	0.0088	0.0011 J	0.011	0.0321	<0.005	<0.005	<0.001		0.0052	0.0016 J	<0.005 UJ	0.0555	0.0092		<0.0053
	P93B-ROX-050511	5/5/2011		41.96	NE	0.0142	0.0113	0.0013 J	0.0151	0.0488	<0.005	<0.005	<0.001		0.0057	0.0014 J	<0.005	0.0502	0.0112	0.0614	<0.0001 UJ
	P93B-ROX-081811	8/18/2011		38.91	NE	<5	<1	0.0037	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1	<0.0001
	P93B-ROX-102611	10/26/2011		39.48	NE	0.0292	<0.001	0.012	0.0359	0.0859	<0.005 UJ	<0.005	<0.001		0.0303	0.0082	<0.005	0.167	0.0352	0.202	<0.0001
	P93B-ROX-012012	1/20/2012		41.72	NE	0.022 J	0.0063 J	0.0041 J J	0.0244 J	0.0678 J	<0.005	<0.005	<0.001		0.0114 J	0.0028 J J	<0.005 UJ	0.0598 J	0.0224 J	0.0822 J	<0.000095
	P93B-ROX-050812	5/8/2012		42.79	NE	0.0188 J	<0.001	0.002	0.0272 J	0.0512 J	<0.005	<0.005	<0.001		0.0196 J	0.0054 J	<0.005	0.116 J	0.0251 J	0.141 J	<0.0001
	P93B-ROX-080912	8/9/2012		43.69	NE	0.0266	<0.001	0.0049	0.0406	0.0786	<0.005	<0.005	<0.001		0.0372	0.0107	<0.005	0.245	0.0468	0.292	<0.00011
	P93B-ROX-110712	11/7/2012		44.98	NE	<0.5	<0.1	<0.5	<0.5	<0.1	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	0.0986 J	<0.1	0.0986 J	<0.0001
	P93B-ROX-110712-DUP	11/7/2012		44.98	NE	<0.5	<0.1	<0.5	<0.5	0.0719 J	<0.5	<0.5	<0.1		<0.5	<0.5	<0.5	0.237	<0.1	0.237	<0.000047 U
	P93B-ROX-012313	1/23/2013	74.60 - 76.60	45.89	NE	<5	<1	<5	<5	<1	<5	<5	<1		<5	<5	<5 UJ	<1	<1	<1	0.00014
P-93C	P93C-102610	10/26/2010	94.26 - 96.26	40.69	NE	<0.005	0.00136 J	<0.009	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.009
	P93C-ROX_012611	1/26/2011		40.91	NE	0.0019 J	0.0014	<0.0051	0.0013 J	0.0067	<0.005	<0.005	<0.001		0.0025 J	<0.005	<0.005 UJ	0.0051	0.0035		<0.0051
	P93C-ROX-050611	5/6/2011		41.84	NE	<0.005	0.0052	0.00003 J J	<0.005	0.0018	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	0.00059 J	<0.0001 UJ
	P93C-ROX-081811	8/18/2011		38.79	NE	<0.005	0.0067	<0.000054 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.0001
	P93C-ROX-102611	10/26/2011		39.36	NE	<0.005	0.0096	<0.0001	<0.005	<0.001	<0.005 UJ	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P93C-ROX-012012	1/20/2012		41.57	NE	<0.005	0.006	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P93C-ROX-050812	5/8/2012		42.68	NE	<0.005	0.004	<0.00011	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	P93C-ROX-080912	8/9/2012		43.57	NE	<0.005	0.0053	0.000065 J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.000089 J
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.005	0.0056	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P93C-ROX-012313	1/23/2013	94.26 - 96.26	45.78	NE	<0.005	0.0044	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011
P-93D	P93D-102610	10/26/2010	Unknown	40.59	NE	<0.005	0.0122	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.05	<0.01	<0.005		<0.01
	P93D-ROX-050511	5/5/2011	125.75 - 127.75	41.96	NE	<0.005	0.0014	0.000036 J J	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001 UJ
	P93D-ROX-081811	8/18/2011		38.94	NE	<0.005	0.00095 J	<0.000087 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.0001
	P93D-ROX-102711	10/27/2011		39.59	NE	<0.005	0.004 J	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P93D-ROX-012012	1/20/2012		41.77	NE	<0.005	<0.001	0.00016	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	P93D-ROX-050812	5/8/2012		42.96	NE	<0.005	0.00077 J	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P93D-ROX-080812	8/8/2012		43.71	NE	<0.005	<0.001	<0.0092 U	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.00017
	P93D-ROX-110812	11/8/2012		44.98	NE	<0.005	0.0023	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
	P93D-ROX-012213	1/22/2013	125.75 - 127.75	44.21	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		0.0015 J	<0.005	<0.005	<0.001	<0.001	<0.001	<0.00011
P-114	P114-ROX-102811	10/28/2011	32.67 - 52.67	24.73	NE	<0.005	0.0036 J	<0.000095	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.000095
	P114-ROX-012012	1/20/2012		27.17	NE	<0.005	<0.001	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P114-ROX-050912	5/9/2012		28.09	NE	<0.005	0.0035 J	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P114-ROX-080912	8/9/2012		29.13	NE	<0.005	0.00083 J	<0.0001	<0.005	<0.001	<0.005	<0.005	<0.001		0.00039 J	<0.005	<0.005	<0.001	<0.001	<0.001	<0.0001
	P114-ROX-110912	11/9/2012		30.90	NE	<0.005	0.0076 J	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	0.0013 J	<0.001	0.0013 J	<0.0001
	P114-ROX-012313	1/23/2013	32.67 - 52.67	30.22	NE	<0.005	0.003 J	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005 UJ	<0.001	<0.001	<0.001	<0.00011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						VOCs																
						Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene[5]	n-Propylbenzene	Toluene	1,2,3-Trichlorobenzene	1,2,4-Trichlorobenzene	1,1,2-Trichloroethane	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl acetate	m,p-Xylene	o-Xylenes	Xylenes (total)	Acenaphthene
			Screening Values (mg/L)			0.7 [3]	0.070 [1]	0.14 [2]	0.7 [3]	1 [1]	0.0056 [3]	0.07 [2]	0.005 [2]			0.07 [3]	7.0 [2]	10		10 [1]	0.42 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-051412	5/14/2012	40.00 - 50.00	38.82	NE	<0.005	<0.001	0.00048	0.00096 J	0.0038	<0.005	<0.005	<0.001		0.0095	0.0023 J	<0.005	0.0607	0.0151	0.0758	0.000023 J
	ROST3PZ-ROX-080712	8/7/2012		39.00	NE	<0.005	<0.001	0.00038	<0.005	0.0015	<0.005	<0.005	<0.001		0.0042 J	0.0012 J	<0.005	0.0289	0.0074	0.0363	<0.00011
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		0.0026 J	<0.005	<0.005	0.0122	0.0037	0.0159	<0.00011
	ROST3MW-ROX-012313	1/23/2013	38.18 - 48.18	41.50	NE	0.0066	<0.001	0.0076	0.0156	0.0016	<0.005	<0.005	<0.001		0.0786	0.022	<0.005 UJ	0.114	0.0159	0.13	0.00025
ROST-4-PZ(C)	ROST4PZ-C-051412	5/14/2012	34.95 - 44.95	39.04	NE	<0.005	<0.001	0.0018	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	0.00027
	ROST4PZ-C-ROX-072512	7/25/2012		39.10	NE	0.0036 J	<0.001	0.0331	0.0059	0.0596	<0.005	<0.005	<0.001		0.0374	0.0076	<0.005	0.373	0.207	0.581	0.00039 B
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0021	<0.001	0.0021	0.000054 J
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.005	<0.001	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		0.002 J	0.0014 J	<0.005	0.0018	<0.001	0.0018	<0.00011
T-12	T12-ROX-102711	10/27/2011	46.46 - 72.46	38.54	NE	<0.05	<0.01	0.105	<0.05	0.233	<0.05	<0.05	<0.01		0.358	0.0527	<0.05	1.13	0.108	1.24	0.00079
	T12-ROX-011912	1/19/2012		41.0	NE	0.022	0.0016	0.132	0.03	0.175	<0.005	<0.005	<0.001		0.34	0.0715	0.0952	0.684	0.0399	0.724	0.00047
	T12-ROX-050912	5/9/2012		42.62	NE	0.0572	<0.005	0.0924	0.101	0.388	<0.025	<0.025	<0.005		0.476	0.0765	<0.025	2.87	0.251	3.12	0.00032
	T12-ROX-080212	8/2/2012		41.92	NE	0.0297 J	<0.01	0.0625	0.0486 J	0.197	<0.05	<0.05	<0.01		0.403	0.0474 J	<0.05	1.32	0.0709	1.39	0.00044
	T12-ROX-110512	11/5/2012		43.91	NE	0.0468 J	<0.01	0.125	0.0831	0.322	<0.05	<0.05	<0.01		0.385	0.0543	<0.05	2.55	0.176	2.73	0.00044
	T12-ROX-011813	1/18/2013		44.50	NE	0.031	<0.005	0.129	0.0466	0.184	<0.025	<0.025	<0.005		0.42	0.0407	<0.025	1.11	0.0252	1.13	0.0005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																	
						Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate
					Screening Values (mg/L)	0.21 [3]	2.1 [2]	0.00013 [2]	0.0002 [1]	0.00018 [2]	0.21 [3]	0.00017 [2]	28 [4]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.0015 [2]	0.0003 [2]	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
MW-01	MW-1-111110	11/11/2010	43.41 - 58.41	36.91	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW-1-111110-Dup	11/11/2010		36.91	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.049		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW1-ROX-011711	1/17/2011		37.58	NE	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.013		<0.0063	<0.0025	<0.0063	<0.013	<0.0063	<0.0063	<0.0063	<0.013	<0.0063	<0.013	<0.0063
	MW1-ROX-042911	4/29/2011		38.37	NE	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.013 UJ	<0.013	<0.0063	<0.00077 U	<0.0063	<0.013	<0.0063	<0.0063	<0.0063	<0.013	<0.0063	<0.013	<0.0063
	MW1-ROX-072711	7/27/2011		35.15	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW1-ROX-120511	12/5/2011		37.10	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000056 U	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW1-ROX-011612	1/16/2012	49.98 - 59.98	37.75	NE	0.000035 J	0.000062 J	0.00011	0.0001	0.00011	<0.00011 U	0.00012	<0.01 UJ	<0.01	<0.0051	<0.002	<0.00039 U	<0.01	0.00011	<0.00011 U	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW1-ROX-050112	5/1/2012		39.09	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW1-ROX-073012	7/30/2012		39.39	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	0.00032 J	<0.011	<0.0053
	MW1-ROX-102612	10/26/2012		41.22	NE	<0.00011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0057	0.00099 J	<0.0057	<0.011	<0.00011	<0.00011	<0.0023	<0.011	<0.0057	<0.011	<0.0057
	MW1-ROX-121712	12/17/2012		41.22	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW1-ROX-011013	1/10/2013	49.98 - 59.98	41.89	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052 UJ
MW-02	MW-2-111010	11/11/2010	47.19 - 62.19	38.12	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.003 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW2-ROX-011711	1/17/2011		38.67	NE	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	0.0082 J		<0.0048	0.25	<0.0048	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.0048	0.0022 J	<0.0048
	MW02-ROX-051011	5/10/2011		39.14	NE	<0.0001 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	0.0019 J	<0.0052	<0.0029 U	<0.0052 UJ	<0.01	<0.0001 UJ	<0.0001 UJ	<0.0052	<0.01	0.0016 J J	<0.01	<0.0052 UJ
	MW2-ROX-072711	7/27/2011		36.36	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW2-ROX-072711-DUP	7/27/2011		36.36	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW2-ROX-112811	11/28/2011	51.32 - 61.32	38.03	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW2-ROX-011612	1/16/2012		38.89	NE	<0.00011	<0.00011	<0.000053	0.000033 J	0.00004 J	<0.000047 U	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.00083 U	<0.00047 U	<0.011	<0.00011	<0.000047 U	<0.0053	<0.011	<0.0053	0.0035 J	<0.0053
	MW2-ROX-050112	5/1/2012		40.25	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	0.0055 J	<0.0052
	MW2-ROX-073012	7/30/2012		40.60	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.00059 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	0.00036 J	0.0045 J	<0.0053
	MW2-ROX-102612	10/26/2012		42.35	NE	<0.00011	<0.00011	0.00016	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	0.0034 J	<0.0054
	MW2-ROX-011113	1/11/2013	51.32 - 61.32	42.94	NE	0.000019 J	<0.00011	<0.000056	0.000027 J	0.000039 J	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011	<0.0056 UJ
MW-03	MW-3-111210	11/12/2010	30.98 - 45.98	24.05	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW3-ROX-011811	1/18/2011		24.92	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.011		<0.0053	0.00062 J	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	MW03-ROX-051011	5/10/2011		24.79	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	<0.0025 U	0.0064 J	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.005 UJ	<0.01	<0.005 UJ
	MW3-ROX-080311	8/3/2011		22.40	NE	<0.000095	<0.000095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095 UJ	<0.0095	<0.0048	0.0084	<0.0048	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048
	MW3-ROX-112911	11/29/2011	34.67 - 44.67	24.06	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW3-ROX-112911-DUP	11/29/2011		24.06	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW3-ROX-011612	1/16/2012		24.93	NE	<0.0001	0.000063 J	0.00011	0.00012	0.00013	<0.00013 U	0.00012	<0.01 UJ	<0.01	<0.0052	<0.0004 U	<0.00039 U	<0.01	0.000098 J	<0.00013 U	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW3-ROX-043012	4/30/2012		26.19	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW3-ROX-072712	7/27/2012		26.60	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011 UJ	<0.00011	<0.011	<0.011	<0.0053	<0.00067 U	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.00059 U	<0.01	<0.0051
	MW3-ROX-010913	1/9/2013	34.67 - 44.67	29.35	NE	0.000023 J	0.000037 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	MW-4-111210	11/12/2010	42.63 - 57.63	35.38	NE	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.047		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
	MW4-ROX-011811	1/18/2011		36.04	NE	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.01		<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW04-ROX-051111	5/11/2011		36.19	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	<0.0023 U	0.0063 J	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.005 UJ	<0.01	<0.005 UJ
	MW4-ROX-072611	7/26/2011		33.65	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	0.0102	<0.01	<0.005	<0.0057 U	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW4-ROX-072611-DUP	7/26/2011		33.65	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	0.0103	<0.01	<0.005	<0.002 U	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW4-ROX-121511	12/15/2011		33.99	NE	0.00011	<0.0001	<0.000052	0.00012	<0.000087 U	<0.00063 U	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0028 U	<0.0052	<0.01	<0.0001	<0.00035 U	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW4-ROX-011612	1/16/2012		36.00	NE	<0.0001	0.00003 J	0.00012	0.00012	0.00013	<0.0002 U	0.00015	<0.01 UJ	<0.01	<0.0052	<0.0005 U	<0.00073 U	<0.01	0.00014	<0.00019 U	<0.0052	<0.01	<0.0052	<0.01	<0.0052

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																		
						Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate
					Screening Values (mg/L)	0.21 [3]	2.1 [2]	0.00013 [2]	0.0002 [1]	0.00018 [2]	0.21 [3]	0.00017 [2]	28 [4]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.0015 [2]	0.0003 [2]	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
MW-04	MW4-ROX-050312	5/3/2012	46.06 - 56.06	37.45	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW4-ROX-050312-DUP	5/3/2012		37.45	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW4-ROX-072512	7/25/2012		37.63	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	0.0056 J	<0.01	<0.0051	<0.00079 U	0.00039 J	<0.01	<0.0001	<0.0001	<0.002	<0.01	0.0014 J	<0.01	<0.0051
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000046 U	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.00069 U	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	0.0012 J	<0.01	<0.0051
	MW4-ROX-102912	10/29/2012		39.45	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052
	MW4-ROX-011113	1/11/2013	46.06 - 56.06	40.20	NE	<0.00011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011	<0.0056 UJ
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	<0.00012	<0.00012	<0.00006	<0.00012	<0.00006	<0.00012	<0.00012	<0.012	<0.012	<0.006	<0.0024	<0.006	<0.012	<0.00012	<0.00012	<0.0024	<0.012	<0.006	<0.012	<0.006 UJ
	MW4-ROX-030413	3/4/2013		40.20	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-05	MW-5-111210	11/12/2010	31.13 - 46.13	23.32	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW5-ROX-011811	1/18/2011		24.15	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.011		<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0009 J	<0.011	<0.0053
	MW05-ROX-051211	5/12/2011		23.98	NE	<0.00011 UJ	<0.00011 UJ	<0.000053 UJ	<0.00011 UJ	<0.000053 UJ	<0.00011 UJ	<0.00011 UJ	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011 UJ	<0.00011 UJ	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	MW5-ROX-072611	7/26/2011		21.72	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW5-ROX-072611-DUP	7/26/2011		21.72	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW5-ROX-112111	11/21/2011	33.97 - 43.97	23.46	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	0.00079 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	MW5-ROX-011712	1/17/2012		24.76	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0015 U	<0.00049 U	<0.011	<0.00011	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	MW5-ROX-050312	5/3/2012		25.89	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW5-ROX-072512	7/25/2012		26.18	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.00064 U	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	0.0011 J	<0.01	<0.0052
	MW5-ROX-102912	10/29/2012		28.16	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01	<0.0051
	MW5-ROX-011113	1/11/2013	33.97 - 43.97	28.75	NE	0.000066 J	0.000028 J	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011	<0.0055 UJ
MW-06A	MW-6A-110910	11/9/2010	31.98 - 46.98	25.62	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW6A-ROX-011911	1/19/2011		26.36	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0044 J J		<0.005	<0.002	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.0019 U	<0.01	<0.005
	MW6A-ROX-051611	5/16/2011		26.10	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	0.0026	<0.005	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.00083 U	<0.01	<0.005
	MW6A-ROX-072611	7/26/2011		24.07	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002 U	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW6A-ROX-112111	11/21/2011	34.83 - 44.83	25.49	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	0.0023	0.00077 J	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW6A-ROX-112111-DUP	11/21/2011		25.49	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	0.0011 J	0.00054 J	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW6A-ROX-011712	1/17/2012		26.74	NE	<0.00011	<0.00011	<0.000064 U	<0.00008 U	<0.00009 U	<0.00015 U	0.000094 J	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00014 U	<0.0054	<0.011	<0.0054	<0.011	<0.0054
	MW6A-ROX-050212	5/2/2012		27.77	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.0029 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW6A-ROX-080112	8/1/2012		28.36	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053
	MW6A-ROX-011413	1/14/2013		31.00	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	0.000073 J	<0.0001	<0.01 UJ	<0.01	<0.0051	0.00054 J	<0.0051	<0.01	<0.0001	0.000066 J	<0.002	<0.01	<0.0051	<0.01	<0.0051 UJ
MW-06B	MW-6B-111610	11/16/2010	64.05 - 69.05	25.47	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW6B-ROX-011911	1/19/2011		26.21	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01 UJ		<0.005	<0.002	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00087 U	<0.01	<0.005
	MW6B-ROX-011911-DUP	1/19/2011		26.21	NE	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01 UJ		<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.001 U	<0.01	<0.0051
	MW6B-ROX-051611	5/16/2011		25.95	NE	0.000098 J	<0.000095 UJ	<0.00048 UJ	<0.000095 UJ	<0.00048 UJ	<0.000095 UJ	<0.000095 UJ	<0.0095	<0.0095	<0.0048	0.0023	<0.0048	<0.0095	<0.000095 UJ	<0.000095 UJ	<0.0048	<0.0095	<0.00078 U	<0.0095	<0.0048
	MW6B-ROX-051611-DUP	5/16/2011		25.95	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	0.0024	<0.005	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.00096 U	<0.01	<0.005
	MW6B-ROX-072311	7/23/2011		23.60	NE	<0.00011	<0.00011	<0.00075 U	<0.0002 U	<0.00019 U	<0.00007 U	<0.00023 U	<0.011 UJ	<0.011	<0.0053	0.00077 J	<0.0053	<0.011	<0.0008 U	<0.000031 U	<0.0053	<0.011	<0.0053	<0.011	<0.0053 UJ
	MW6B-ROX-110311	11/3/2011		24.67	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01 UJ	<0.005
	MW6B-ROX-011712	1/17/2012		26.77	NE	<0.00011	<0.00011	<0.000055	<0.00015 U	<0.00011 U	<0.00028 U	0.0001 J	<0.011 UJ	<0.011	<0.0055	<0.0011 U	<0.0055	<0.011	<0.00011	<0.00027 U	<0.0055	<0.011	<0.0055	<0.011	<0.0055
	MW6B-ROX-050212	5/2/2012		27.82	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW6B-ROX-080112	8/1/2012		28.39	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.00049 J	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01	<0.0051
	MW6B-ROX-102412	10/24/2012		30.11	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	0.00057 J	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01	<0.0051
	MW6B-ROX-011713	1/17/2013	64.05 - 69.05	31.11	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
MW-06C	MW-6C-111610	11/16/2010	84.95 - 89.95	25.25	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW6C-ROX-012111	1/21/2011		25.97	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.011 UJ		<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.00084 U	<0.011	<0.0053
	MW6C-ROX-051611	5/16/2011		25.76	NE	0.000046 J J	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	0.0025	0.0064	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.00063 U	<0.01	<0.005
	MW6C-ROX-072411	7/24/2011		23.43	NE	<0.00011	<0.00011	0.00016 B	0.00013 B	0.00014 B	0.000041 J	0.00016 B	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	0.00015 B	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053 UJ
	MW6C-ROX-110311	11/3/2011		24.47	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01 UJ	<0.005
	MW6C-ROX-011712	1/17/2012		26.50	NE	<0.00011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.00046 U	<0.011	<0.00011	<0.00011	<0.0054	<0.011	<0.0054	<0.011	<0.0054
	MW6C-ROX-050212	5/2/2012		27.62	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW6C-ROX-080112	8/1/2012		28.15	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																		
						Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate
			Screening Values (mg/L)			0.21 [3]	2.1 [2]	0.00013 [2]	0.0002 [1]	0.00018 [2]	0.21 [3]	0.00017 [2]	28 [4]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.0015 [2]	0.0003 [2]	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01	<0.0051
	MW6C-ROX-011713	1/17/2013	84.95 - 89.95	30.88	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
MW-06D	MW-6D-111610	11/16/2010	104.72 - 109.72	25.13	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.051		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW6D-ROX-012111	1/21/2011		25.87	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.011 UJ		<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.001 U	<0.011	<0.0053
	MW6D-ROX-051611	5/16/2011		25.60	NE	<0.00011 UJ	<0.00011 UJ	<0.000055 UJ	<0.00011 UJ	<0.000055 UJ	<0.00011 UJ	<0.00011 UJ	<0.011	<0.011	<0.0055	0.0027	0.0069	<0.011	<0.00011 UJ	<0.00011 UJ	<0.0055	<0.011	<0.00085 U	<0.011	<0.0055
	MW6D-ROX-072311	7/23/2011		23.29	NE	<0.00011	<0.00011	<0.00038 U	<0.00015 U	<0.00017 U	<0.000049 U	<0.00019 U	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00039 U	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053 UJ
	MW6D-ROX-110311	11/3/2011		24.31	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01 UJ	<0.0052
	MW6D-ROX-011712	1/17/2012		26.33	NE	<0.00011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.00011	<0.00011	<0.0055	<0.011	<0.0055	<0.011	<0.0055
	MW6D-ROX-050212	5/2/2012		27.45	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.0044 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW6D-ROX-080212	8/2/2012		30.56	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	0.00022 J	<0.01	<0.0051
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052
	MW6D-ROX-011713	1/17/2013	104.72 - 109.72	30.75	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
MW-07	MW-7-111710	11/17/2010	42.92 - 52.92	36.93	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.005 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW-7-111710-Dup	11/17/2010		36.93	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05		<0.01	<0.007 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW7-ROX-012511	1/25/2011		37.52	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.011		<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.003 U	<0.011	<0.0053
	MW07-ROX-051311	5/13/2011		37.50	NE	<0.00011 UJ	0.000031 J J	<0.000054 UJ	<0.00011 UJ	<0.000054 UJ	<0.00011 UJ	<0.00011 UJ	<0.011	<0.011	<0.0054	<0.0032 U	<0.0071 U	<0.011	<0.00011 UJ	<0.00011 UJ	<0.0054	<0.011	<0.00097 U	<0.011	<0.0054
	MW07-ROX-051311D	5/13/2011		37.50	NE	<0.00011 UJ	0.000034 J J	<0.000055 UJ	0.000018 J J	<0.000055 UJ	<0.00011 UJ	<0.00011 UJ	<0.011	<0.011	<0.0055	<0.0035 U	<0.007 U	<0.011	<0.00011 UJ	<0.00011 UJ	<0.0055	<0.011	<0.0055	<0.011	<0.0055
	MW7-ROX-072411	7/24/2011		35.22	NE	<0.00011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011	0.000018 J	<0.00011	<0.0054	<0.011	<0.0054	<0.011	<0.0054 UJ
	MW-7-ROX-110211	11/2/2011		35.95	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01 UJ	<0.005
	MW7-ROX-011812	1/18/2012		38.10	NE	<0.0001	<0.0001	<0.00005	<0.000024 U	<0.00005	<0.0001	<0.0001		<0.01 UJ	<0.005	<0.002	0.00049 J	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW7-ROX-011812-DUP	1/18/2012		38.10	NE	<0.00011	<0.00011	<0.000056	<0.00003 U	<0.000056	<0.00011	<0.00011		<0.011 UJ	<0.0056	0.00044 J	0.00048 J	<0.011	<0.00011	<0.00011	<0.0056	<0.011	<0.0056	<0.011	<0.0056
	MW7-ROX-050412	5/4/2012		39.19	NE	<0.0001	<0.0001	0.00011	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00071 J	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW7-ROX-080712	8/7/2012		39.50	NE	0.000037 J	0.000022 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.0006 J	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.00058 U	<0.01	<0.0051
	MW7-ROX-103012	10/30/2012		41.23	NE	<0.00012	<0.00012	<0.000058	<0.00012	<0.000058	<0.00012	<0.00012	<0.012	<0.012	<0.0058	0.0015 J	<0.0058	<0.012	<0.00012	<0.00012	<0.0023	<0.012	<0.0058	<0.012	<0.0058
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	<0.00011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	0.0007 J	<0.0056	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011	<0.0056
	MW7-ROX-011513	1/15/2013	42.92 - 52.92	42.21	NE	0.00011	0.000059 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	0.00061 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053 UJ
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	0.000093 J	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	0.00055 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052 UJ
MW-08	MW-8-111710	11/17/2010	33.60 - 43.60	27.84	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.006 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01
	MW8-ROX-012511	1/25/2011		28.59	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01		<0.005	0.00086 J	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.0025 U	0.0233	<0.005
	MW8-ROX-012511-DUP	1/25/2011		28.59	NE	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.011		<0.0057	0.0012 J	<0.0057	<0.011	<0.0057	<0.0057	<0.0057	<0.011	0.0125	0.0299	<0.0057
	MW08-ROX-051311	5/13/2011		28.35	NE	<0.00011 UJ	0.000063 J J	<0.000055 UJ	<0.00011 UJ	<0.000055 UJ	<0.00011 UJ	<0.00011 UJ	<0.011	<0.011	<0.0055	<0.0031 U	<0.0055	<0.011	<0.00011 UJ	<0.00011 UJ	<0.0055	<0.011	<0.0018 U	0.0225	<0.0055
	MW08-ROX-051311D	5/13/2011		28.35	NE	<0.00011 UJ	0.000054 J J	<0.000056 UJ	<0.00011 UJ	<0.000056 UJ	<0.00011 UJ	<0.00011 UJ	<0.011	<0.011	<0.0056	<0.0034 U	<0.0056	<0.011	<0.00011 UJ	<0.00011 UJ	<0.0056	<0.011	<0.0011 U	0.0232	<0.0056
	MW8-ROX-072411	7/24/2011		26.02	NE	<0.00011	0.000067 J	0.00013 B	0.00016 B	0.00016 B	0.000048 J	0.00017 B	<0.011 UJ	<0.011	<0.0054	0.0019 J	<0.0054	<0.011	0.000099 JB	<0.00011	<0.0054	<0.011	<0.0054	0.0228	<0.0054 UJ
	MW8-ROX-072411-DUP	7/24/2011		26.02	NE	<0.00011	0.000062 J	0.00012 B	0.00019 B	0.00018 B	0.000058 J	0.00021 B	<0.011 UJ	<0.011	<0.0055	0.0013 J	<0.0055	<0.011	0.000099 JB	<0.00011	<0.0055	<0.011	<0.0055	0.0213	<0.0055 UJ
	MW-8-ROX-110211	11/2/2011		27.02	NE	<0.000095	<0.000095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095	<0.0095	<0.0048	<0.0019	<0.0048	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	0.0383 J	<0.0048
	MW8-ROX-011812	1/18/2012		29.15	NE	<0.00053	<0.00053	<0.00026	<0.00053	<0.00026	<0.00053	<0.00053		<0.011 UJ	<0.0053	0.00052 J	0.00042 J	<0.011	<0.00053	<0.00053	0.0006 J	<0.011	<0.0053	0.015	<0.0053
	MW8-ROX-050412	5/4/2012		30.21	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	0.0204	<0.011	<0.0053	0.00053 J	<0.0053	<0.011	<0.00011	<0.00011	0.00044 J	<0.011	<0.0053	0.0595	<0.0053
	MW8-ROX-050412-DUP	5/4/2012		30.21	NE	<0.0001	<0.0001	0.00012	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00047 J	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	0.0557	<0.005
	MW8-ROX-080712	8/7/2012		30.97	NE	0.00013	0.000055 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.00051 J	<0.0054	<0.011	<0.00011	<0.00011	0.00035 J	<0.011	<0.0016 U	0.015	<0.0054
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	0.00029	0.000071 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	0.00043 J	<0.0056	<0.011	<0.00011	<0.00011	0.0004 J	<0.011	<0.0018 U	0.0158	<0.0056
	MW8-ROX-103012	10/30/2012		32.32	NE	0.00011	0.00044	<0.00087 U	0.00053 B	0.00057 B	0.00058 B	0.00064 B	<0.011	<0.011	<0.0053	0.0012 J	0.00086 J	<0.011	0.00066 B	0.00059 B	<0.0021	<0.011	<0.0053	0.0085 J	<0.0053
	MW8-ROX-011513	1/15/2013	33.60 - 43.60	33.30	NE	0.000085 J	0.000029 J	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	0.00089 J	<0.0056	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	0.019	<0.0056 UJ
MW-09	MW-9-111510	11/15/2010	46.45 - 56.45	39.00	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.001 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW9-ROX-012111	1/21/2011		39.62	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.011 UJ		<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.001 U	<0.011	<0.0053
	MW09-ROX-050611	5/6/2011		40.12	NE	<0.000097 UJ	<0.000097 UJ	<0.000049 UJ	<0.000097 UJ	<0.000049 UJ	<0.000097 UJ	<0.000097 UJ	<0.0097	<0.0097	<0.0049	<0.0019	<0.0049	<0.0097	<0.000097 UJ	<0.000097 UJ	<0.0049	<0.0097	<0.0018 U	<0.0097	<0.0049
	MW9-ROX-072311	7/23/2011		37.27	NE	<0.00011	<0.00011	<0.00021 U	<0.00013 U	<0.00015 U	<0.000046 U	<0.00018 U	<0.01 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.01 UJ	<0.0002 U	<0.00011	<0.0054	<0.01 UJ	<0.0054	<0.01 UJ	<0.0054 UJ
	MW9-ROX-110111	11/1/2011		37.78	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW9-ROX-011612	1/16/2012		39.50	NE	<0.00011	<0.00011	<0.000057	0.000058 J	0.000051 J	<0.000096 U	<0.00011	<0.011 UJ	<0.011	<0.0057	<0.00085 U	<0.00037 U	<0.011	<0.00011	<0.00078 U	<0.0057	<0.011	<0.0057	<0.011	<0.0057
	MW9-ROX-050312	5/3/2012		41.03	NE											0.0016 J J	0.00045 JB J								
	MW9-ROX-072712	7/27/2012		41.30	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001 UJ	<0.0001	<0.01	<0.01	<0.005	<0.00043 U	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052
	MW9-ROX-011113	1/11/2013	46.45 - 56.45	43.90	NE	0.000064 J	0.00006 J	<0.000054	<0.00011	0.000026 J	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011	<0.0054 UJ
	MW-10-111010	11/10/2010		38.97	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW10-ROX-012411	1/24/2011		39.40	NE	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01		<0.0051	0.00068 J	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.001 U	<0.01	<0.0051
	MW10-ROX-012411-DUP	1/24/2011		39.40	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01		<0.005	0.00071 J	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.0012 U	<0.01	<0.005
	MW10-ROX-042811	4/28/2011		40.20	NE	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0095 UJ	<0.0095	<0.0048	<0.00051 U	<0.0048	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048
	MW10-ROX-072311	7/23/2011		37.24	NE	<0.0001	<0.0001	<0.00025 U	<0.00013 U	<0.00014 U	<0.000039 U	<0.00017 U	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.00027 U	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005 UJ

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																	
						Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate
				Screening Values (mg/L)		0.21 [3]	2.1 [2]	0.00013 [2]	0.0002 [1]	0.00018 [2]	0.21 [3]	0.00017 [2]	28 [4]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.0015 [2]	0.0003 [2]	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																			
MW-10	MW10-ROX-110111	11/1/2011	44.43 - 54.43	37.72	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW10-ROX-011612	1/16/2012		39.28	NE	<0.00011	0.000027 J	0.000037 J	0.000031 J	0.000043 J	<0.000042 U	<0.00011	<0.011 UJ	<0.011	<0.0053	0.0255	<0.0013 U	<0.011	<0.00011	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	MW10-ROX-050112	5/1/2012		40.86	NE	<0.0001	0.000018 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW10-ROX-072712	7/27/2012		41.21	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001 UJ	<0.0001	<0.01	<0.01	<0.005	<0.00067 U	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	MW10-ROX-102612	10/26/2012		43.08	NE	<0.00011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0056	<0.011	<0.0056
	MW10-ROX-121712	12/17/2012		43.08	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW10-ROX-011013	1/10/2013	44.43 - 54.43	44.10	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005 UJ
	MW10-ROX-012113	1/21/2013		44.10	NE	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.02	<0.01	<0.006	<0.01	<0.02	<0.0001	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01
MW-11	MW-11-111710	11/17/2010	41.66 - 51.66	36.39	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.003 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW11-ROX-012411	1/24/2011		37.15	NE	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.01		<0.0052	0.00073 J	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.001 U	<0.01	<0.0052
	MW11-ROX-050611	5/6/2011		37.60	NE	<0.000095 UJ	<0.000095 UJ	<0.000042 UJ	<0.000095 UJ	0.000025 J J	0.000022 J J	0.000014 J J	<0.0095	<0.0095	<0.0048	<0.0028 U	<0.0048	<0.0095	0.000037 J J	<0.000095 UJ	<0.0048	<0.0095	<0.0009 U	<0.0095	<0.0048
	MW11-ROX-072411	7/24/2011		34.68	NE	<0.00011	<0.00011	0.00013 B	0.00012 B	0.00013 B	0.000035 J	0.00014 B	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.0056	<0.011	0.00013 B	<0.00011	<0.0056	<0.011	<0.0056	<0.011	<0.0056 UJ
	MW-11-ROX-110211	11/2/2011		35.44	NE	<0.00011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011	<0.0054	<0.011	<0.0054	<0.011 UJ	<0.0054
	MW11-ROX-011712	1/17/2012		37.44	NE		0.000022 J J					0.000065 J J													
	MW11-ROX-043012	4/30/2012		38.66	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW11-ROX-072712	7/27/2012		38.90	NE	<0.00012	<0.00012	<0.000058	<0.00012	<0.000058	<0.00012 UJ	<0.00012	<0.012	<0.012	<0.0058	<0.00056 U	<0.0058	<0.012	<0.00012	<0.00012	<0.0023	<0.012	<0.0058	<0.012	<0.0058
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.00011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.00042 U	<0.011	<0.0054
	MW11-ROX-011013	1/10/2013	41.66 - 51.66	41.43	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.01 UJ	<0.005 UJ	<0.002 UJ	<0.005 UJ	<0.01 UJ	<0.0001 UJ	<0.0001 UJ	<0.002 UJ	<0.01 UJ	<0.005 UJ	<0.01 UJ	<0.005 UJ
MW-12	MW-12-111510	11/15/2010	41.92 - 51.92	36.63	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.003 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	MW12-ROX-012411	1/24/2011		37.42	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01		<0.005	<0.002	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00077 U	<0.01	<0.005
	MW12-ROX-051211	5/12/2011		37.58	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	0.000019 J J	<0.0001 UJ	<0.005	<0.01	<0.005	<0.01	<0.005
	MW12-ROX-072411	7/24/2011		34.88	NE	<0.0001	<0.0001	0.000072 B	0.00014 B	0.00014 B	0.000053 J	0.00019 B	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01 UJ	0.000072 JB	0.000031 JB	<0.005	<0.01 UJ	<0.005	<0.01 UJ	<0.005 UJ
	MW-12-ROX-110211	11/2/2011		35.70	NE	<0.000095	<0.000095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095	<0.0095	<0.0048	<0.0019	<0.0048	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095 UJ	<0.0048
	MW-12-ROX-110211-DUP	11/2/2011		35.70	NE	<0.000095	<0.000095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095	<0.0095	<0.0048	<0.0019	<0.0048	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095 UJ	<0.0048
	MW12-ROX-011712	1/17/2012		37.70	NE	<0.00011	<0.00011	<0.000054	<0.00016 U	<0.00013 U	<0.00021 U	0.00013	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.00029 U	<0.011	<0.00011	<0.00021 U	<0.0054	<0.011	<0.0054	<0.011	<0.0054
	MW12-ROX-011712-DUP	1/17/2012		37.70	NE	<0.00011	<0.00011	<0.000054	<0.00039 U	<0.00004 U	<0.000067 U	<0.00011	<0.011 UJ	<0.011	<0.0056	<0.0022	<0.00033 U	<0.011	<0.00011	<0.000051 U	<0.0056	<0.011	<0.0056	<0.011	<0.0056
	MW12-ROX-043012	4/30/2012		38.98	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	MW12-ROX-072712	7/27/2012		39.22	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011 UJ	<0.00011	<0.011	<0.011	<0.0053	<0.0019 U	0.00029 J	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.00077 U	<0.011	<0.0053
	MW12-ROX-011013	1/10/2013	41.92 - 51.92	41.83	NE	<0.0001	<0.0001	<0.000051	<0.0001	0.000026 J	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01	<0.0051 UJ
MW-13	MW13-ROX-012511	1/25/2011	25.57 - 35.57	24.28	NE	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.01		<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.0027 U	<0.01	<0.0052
	MW13-ROX-051311	5/13/2011		23.65	NE	0.000067 J J	0.000059 J J	0.000042 J J	0.000016 J J	<0.00005 UJ	<0.000099 UJ	<0.000099 UJ	<0.0099	<0.0099	<0.005	<0.0027 U	<0.005	<0.0099	0.000059 J J	<0.000099 UJ	<0.005	<0.0099	<0.00086 U	<0.0099	<0.005
	MW13-ROX-080311	8/3/2011		21.88	NE	<0.0001	0.00011	0.000037 J	0.000039 J	0.000037 J	0.000053 J	0.000036 J	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	0.000036 J	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	MW13-ROX-110311	11/3/2011		22.85	NE	<0.00011	<0.00011	<0.000056	<0.00011	<0.000056	<0.00011	<0.00011	<0.011	<0.011	<0.0056	<0.0022	<0.0056	<0.011	<0.00011	<0.00011	<0.0056	<0.011	<0.0056	<0.011 UJ	<0.0056
	MW13-ROX-012012	1/20/2012		24.77	NE	0.00014	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	0.0087 J J	<0.011	<0.0053	<0.0007 U	<0.0007 U	<0.011	<0.00011	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	MW13-ROX-050712	5/7/2012		25.79	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	MW13-ROX-080812	8/8/2012		26.67	NE	0.00019	0.000063 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053
	MW13-ROX-110812	11/8/2012		25.30	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	MW13-ROX-012313	1/23/2013		29.26	NE	<0.00011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0055 UJ	<0.011	<0.0055 UJ
MW-14	MW14-ROX-110911	11/9/2011	Unknown			<0.00011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	MW14-ROX-051012	5/10/2012				<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.00042 U	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	0.00084 J	<0.0052	<0.01	<0.0052
	MW14-ROX-080312	8/3/2012	33.42 - 43.42	29.87	NE	0.00015	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.00049 J	<0.0053	<0.011	<0.00011	<0.00011	0.00076 J	0.00096 J	<0.0053	<0.011	<0.0053
	MW14-ROX-103112	10/31/2012		32.02	NE	0.00008 J	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	0.0003 J	<0.01	<0.005	<0.01 UJ	<0.005
	MW14-ROX-011813	1/18/2013	33.42 - 43.42	33.05	NE	0.00013	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005 UJ
MW-16	MW16-ROX-012313	1/23/2013	37.43 - 47.43	43.05	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053 UJ	<0.011	<0.0053 UJ
MW-22	MW22-ROX-012313	1/23/2013	38.21 - 48.21	41.80	NE	<0.0001	0.00002 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	0.0031 J	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052 UJ	0.0146	<0.0052 UJ
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	0.0033 J	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053 UJ	0.0149	<0.0053 UJ
P-54	P-54-111710	11/17/2010	38.00 - 63.00	36.43	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.003 U	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	P54-ROX-012411	1/24/2011		37.24	NE	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01		<0.005	<0.002	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.002 U	<0.01	<0.005
	P54-ROX-051111	5/11/2011		37.37	NE	<0.00011 UJ	<0.00011 UJ	<0.000054 UJ	0.0001 J J	<0.000054 UJ	<0.00011 UJ	<0.00011 UJ	<0.01	<0.01	<0.005	<0.0024 U	<0.005 UJ	<0.01	0.000019 J J	<0.00011 UJ	<0.005	<0.01	<0.005 UJ	<0.01	<0.005 UJ
	P54-ROX-072411	7/24/2011		34.78	NE	<0.0001	<0.0001	0.000079 B	0.00014 B	0.00015 B	0.000053 J	0.00017 B	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	0.000081 JB	0.00002 JB	<0.005	<0.01	<0.005	<0.01	<0.005 UJ
	P54-ROX-110311	11/3/2011		35.49	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	P54-ROX-011712	1/17/2012		37.17	NE	<0.0001	<0.0001	<0.000052	<0.000024 U	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P54-ROX-050412	5/4/2012		38.77	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	0.0045 J	<0.01	<0.0051	0.0133	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	P54-ROX-080212	8/2/2012		38.95	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053
	P54-ROX-103012	10/30/2012		40.70	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01	<0.0051

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																		
						Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate
					Screening Values (mg/L)	0.21 [3]	2.1 [2]	0.00013 [2]	0.0002 [1]	0.00018 [2]	0.21 [3]	0.00017 [2]	28 [4]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.0015 [2]	0.0003 [2]	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
	P54-ROX-011113	1/11/2013	38.00 - 63.00	41.56	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053 UJ
P-55	P55-ROX-103111	10/31/2011	39.82 - 64.82	39.15	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.0022	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	P55-ROX-011912	1/19/2012		41.09	NE	<0.0001	<0.0001	<0.000052	0.000022 J	<0.000052	<0.0001	<0.0001		<0.01 UJ	<0.0052	<0.0021	<0.00048 U	<0.01	<0.0001	<0.0001	0.00035 J	<0.01	<0.0052	<0.01	<0.0052
	P55-ROX-011912-D	1/19/2012		41.09	NE	<0.00011	<0.00011	<0.000054	0.000067 J	0.000061	0.00011	0.000071 J		<0.011 UJ	<0.0054	<0.0022	<0.00035 U	<0.011	<0.00011	0.000086 J	0.00033 J	<0.011	<0.0054	<0.011	<0.0054
	P55-ROX-050912	5/9/2012		42.44	NE	0.000095 J	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	P55-ROX-012113	1/21/2013	40.85 - 50.85	43.60	NE	0.00019	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.05	<0.02	<0.01	<0.006	<0.01	<0.02	<0.0001	<0.0001	0.001 J	<0.01	<0.01	0.004 J	<0.01
	P55-ROX-012113	1/21/2013		43.60	NE	0.00014	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	0.001 J	<0.01	0.00073 J	0.0024 J	<0.0051
P-56	P56-ROX-102711	10/27/2011	40.82 - 65.82	39.42	NE	0.00013	0.00013	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0026	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P56-ROX-011912	1/19/2012		41.81	NE	<0.0001	0.00011	<0.000051	0.000021 J	<0.000051	<0.0001	<0.0001		<0.01 UJ	<0.0051	<0.00066 U	<0.00053 U	<0.01	<0.0001	<0.0001	0.00064 J	<0.01	<0.0051	<0.01	<0.0051
	P56-ROX-050812	5/8/2012		43.09	NE	0.0001	<0.0001	<0.00011 U	<0.00012 U	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P56-ROX-080612	8/6/2012		43.60	NE	0.000087 J	0.00013	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	0.00051 J	<0.01	<0.0014 U	<0.01	<0.0051
	P56-ROX-103112	10/31/2012		44.80	NE	<0.0001	0.00012	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	0.00066 J	<0.01	<0.0051	<0.01 UJ	<0.0051
	P56-ROX-011713	1/17/2013	40.82 - 65.82	45.65	NE	0.000083 J	0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.0044	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
P-57	P57-ROX-110811	11/8/2011	40.46 - 65.46	39.20	NE	<0.00054	<0.00054	<0.00027	<0.00054	<0.00027	<0.00054	<0.00054	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00054	<0.00054	<0.0054	<0.011	<0.0054	<0.011	<0.0054
	P57-ROX-021312	2/13/2012		42.13	NE	<0.0001	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.00043 J	<0.00043 U	<0.01	<0.0001	<0.0001	0.00087 J	<0.01	<0.0051	0.0045 J	<0.0051
	P57-ROX-050712	5/7/2012		42.92	NE	<0.0001	<0.0001	0.00011	0.00012	<0.000052	<0.0001	<0.0001	<0.01	<0.01	0.0008 J	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P57-ROX-080612	8/6/2012		43.53	NE	0.0001	0.000073 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	0.00079 J	<0.01	<0.00096 U	0.0029 J	<0.005
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	0.0001	0.000064 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	0.00073 J	<0.01	<0.001 U	0.0029 J	<0.005
	P57-ROX-012913	1/29/2013	40.46 - 65.46	45.92	NE	0.00013	0.000076 J	<0.000059	<0.00012	<0.000059	<0.00012	<0.00012	<0.012	<0.012	<0.0059	<0.0024	<0.0059	<0.012	<0.00012	<0.00012	<0.0024	<0.012	<0.0059	0.0023 J J	<0.0059
P-58	P58-ROX-102811	10/28/2011	40.21 - 65.21	37.31	NE	<0.000097	<0.000097	<0.000049	<0.000097	<0.000049	<0.000097	<0.000097	<0.0097	<0.0097	<0.0049	0.003	<0.0049	<0.0097	<0.000097	<0.000097	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049
	P58-ROX-011912	1/19/2012		39.73	NE	<0.00011	<0.00011	0.000039 J	0.000051 J	0.000032 J	0.000047 J	<0.00011		<0.011 UJ	<0.0053	0.0361 J	<0.00059 U	<0.011	<0.00011	<0.00011	0.0026 J	<0.011	<0.0053	<0.011	<0.0053
	P58-ROX-011912-D	1/19/2012		39.73	NE	<0.00011	<0.00011	0.000036 J	0.000036 J	<0.000053	<0.00011	<0.00011		<0.011 UJ	<0.0053	0.024 J	<0.0053	<0.011	<0.00011	<0.00011	0.0023 J	<0.011	<0.0053	<0.011	<0.0053
	P58-ROX-050712	5/7/2012		40.90	NE	0.00019	0.00057 J	0.00017	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	0.0017 J	<0.01	<0.0051	<0.01	<0.0051
	P58-ROX-050712-DUP	5/7/2012		40.90	NE	0.00015	<0.0001 UJ	0.00015	0.000032 J	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P58-ROX-080612	8/6/2012		41.63	NE	0.00029	0.000094 J	0.00024	0.00011	0.000064	0.000043 J	<0.0001	<0.01	<0.01	<0.005	0.00043 J	<0.005	<0.01	0.0001	<0.0001	0.0022	<0.01	<0.005	<0.01	<0.005
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	0.0003	0.00011	0.00021	0.000098 J	0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00042 J	<0.005	<0.01	0.000099 J	<0.0001	0.0025	<0.01	<0.005	<0.01	<0.005
	P58-ROX-110612	11/6/2012		43.09	NE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	P58-ROX-121012	12/10/2012		43.09	NE	0.00024	0.00083	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.0103	<0.0054	<0.011	<0.00011	<0.00011	0.002 J	<0.011	<0.0054	<0.011	<0.0054 UJ
	P58-ROX-012213	1/22/2013	40.21 - 65.21	44.21	NE	0.0006	<0.00011	0.00038	0.00022	0.00012	0.00012	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	0.00039	0.000068 J	0.0038	<0.011	<0.0054	<0.011	<0.0054
P-59	P59-ROX-102711	10/27/2011	47.91 - 72.91	41.06	NE	0.00012	0.00046	0.00019	<0.00011	0.000073	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.0028	<0.0053	<0.011	0.00034	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	P59-ROX-011912	1/19/2012		42.88	NE	<0.00011	0.00025	0.000055 J	0.000038 J	0.000037 J	0.000052 J	<0.00011		0.0011 J	<0.0057	<0.00079 U	<0.0011 U	<0.011	0.000085 J	<0.00011	<0.0057	<0.011	<0.0057	0.0133	<0.0057
	P59-ROX-011912-DUP	1/19/2012		42.88	NE	<0.0001	0.00015	0.00005 J	0.000029 J	0.000027 J	<0.0001	<0.0001		0.00091 J	<0.0051	<0.002	<0.00061 U	<0.01	0.000074 J	<0.0001	0.00042 J	<0.01	<0.0051	0.0108	<0.0051
	P59-ROX-050912	5/9/2012		44.11	NE	<0.0001	0.000095 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	0.0161	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	0.0085 J	<0.005
	P59-ROX-080212	8/2/2012		44.07	NE	0.0001 J	0.00014	0.00021	0.000036 J	0.000047 J	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	0.00036 J	<0.011	<0.0053	0.0088 J	<0.0053
	P59-ROX-110212	11/2/2012		45.98	NE	<0.00011	0.000086 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	0.00031 J	<0.011	<0.0053	0.0102 J J	<0.0053
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	<0.0001	0.000084 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	0.00029 J	<0.01	<0.0052	0.0092 J J	<0.0052
	P59-ROX-013013	1/30/2013	47.91 - 72.91	46.60	NE	<0.0001	0.00012	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0041	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	0.0581	<0.0052 UJ
P-66	P66-ROX-110111	11/1/2011	34.72 - 59.72	28.92	NE	<0.0001	<0.0001	<0.000095 U	<0.0001	<0.000088 U	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.00011 U	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	P66-ROX-051012	5/10/2012		32.48	NE	<0.0001	<0.0001	<0.00005	<0.0001	0.000024 J	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.00053 U	<0.005	<0.01	<0.0001	<0.0001	0.0018 J	<0.01	<0.005	<0.01	<0.005
	P66-ROX-080312	8/3/2012		30.51	NE	0.00025	<0.00011	0.00018	0.000066 J	0.00008	0.000066 J	<0.00011	<0.011	<0.011	<0.0053	0.00075 J	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053
	P66-ROX-103112	10/31/2012		34.75	NE	0.00022	0.0006	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	0.0019 J	<0.01	<0.005	<0.01 UJ	<0.005
	P66-ROX-011813	1/18/2013	34.72 - 59.72	35.70	NE	0.00034	<0.000055 U	<0.000053	<0.00011	<0.000028 U	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	0.0018 J	<0.011	<0.0053	<0.011	<0.0053 UJ
P-74	P74-ROX-103111	10/31/2011	44.43 - 69.43	36.26	NE	0.00012	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	P74-ROX-011912	1/19/2012		38.77	NE	<0.000095	<0.000095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095		<0.0095 UJ	<0.0048	<0.0019	<0.00043 U	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048
	P74-ROX-050712	5/7/2012		39.92	NE	<0.0001	<0.0001	0.00012	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P74-ROX-080612	8/6/2012		40.71	NE	0.000056 J	0.000041 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0012 U	0.0039 J	<0.005
	P74-ROX-110112	11/1/2012		41.72	NE	<0.0001	0.000044 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0052	0.00044 J	<0.0052	<0.01	<0.0001	<0.0001	0.00031 J	0.001 J	<0.0052	0.008 J J	<0.0052
	P74-ROX-011713	1/17/2013	44.43 - 69.43	42.65	NE	0.0001	0.000063 J	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	0.0028 J	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	0.0021 J	<0.0051
P-93A	P93A-102610	10/26/2010	48.17 - 63.17	40.75	NE	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.047		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
	P93A-ROX_012611	1/26/2011		40.97	NE	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0049	<0.0098 UJ		<0.0049	<0.002	<0.0049	<0.0098	<0.0049	<0.0049	<0.0049	<0.0098	<0.0014 U	<0.0098	<0.0049
	P93A-ROX-050511	5/5/2011		41.88	NE	<0.0001 UJ	0.000035 J J	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001 UJ	<0.0001 UJ	0.00035 J	<0.01	<0.00073 U	<0.01	<0.005
	P93A-ROX-081811	8/18/2011		38.86	NE	<0.0001	0.000058 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.003	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.0029 U	<0.01	<0.005
	P93A-ROX-102611	10/26/2011		39.43	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.0075	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	P93A-ROX-012012	1/20/2012		41.66	NE	<0.000095	0.000032 J	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095 UJ	<0.0095	<0.0048	<0.006 U	<0.00053 U	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																	
						Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate
					Screening Values (mg/L)	0.21 [3]	2.1 [2]	0.00013 [2]	0.0002 [1]	0.00018 [2]	0.21 [3]	0.00017 [2]	28 [4]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.0015 [2]	0.0003 [2]	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
P-93A	P93A-ROX-050812	5/8/2012		42.75	NE	<0.0001	<0.0001	<0.0001 U	<0.00012 U	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.0029	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	P93A-ROX-080912	8/9/2012		43.66	NE	<0.00011	0.000048 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	0.0032 J	<0.011	<0.0054	0.0153	<0.0054	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011	<0.0054
	P93A-ROX-110712	11/7/2012		45.00	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0026	<0.0052	<0.01	<0.0001	<0.0001	0.00027 J	<0.01	<0.0052	<0.01	<0.0052
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	<0.0001	0.000061 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0023	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052
	P93A-ROX-012313	1/23/2013	48.17 - 63.17	45.89	NE	<0.0001	0.000028 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0099	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052 UJ	<0.01	<0.0052 UJ
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.011	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052 UJ	<0.01	<0.0052 UJ
P-93B	P93B-102610	10/26/2010	74.60 - 76.60	40.73	NE	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.047		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
	P93B-ROX_012611	1/26/2011		41.03	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.011 UJ		<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.00086 U	<0.011	<0.0053
	P93B-ROX-050511	5/5/2011		41.96	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.005	<0.01	<0.005
	P93B-ROX-081811	8/18/2011		38.91	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.001 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0021 U	<0.01	<0.0052
	P93B-ROX-102611	10/26/2011		39.48	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0103	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P93B-ROX-012012	1/20/2012		41.72	NE	0.000028 J	<0.000095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095 UJ	<0.0095	<0.0048	<0.0033 U	<0.00033 U	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048
	P93B-ROX-050812	5/8/2012		42.79	NE	<0.0001	<0.0001	<0.000051	<0.00012 U	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	P93B-ROX-080912	8/9/2012		43.69	NE	0.000087 J	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	0.0036	<0.0054	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.00051 U	<0.011	<0.0054
	P93B-ROX-110712	11/7/2012		44.98	NE	0.000073 JB	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.0017 J	<0.0051	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.0051	<0.01	<0.0051
	P93B-ROX-110712-DUP	11/7/2012		44.98	NE	0.000058 J	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00057 J	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	P93B-ROX-012313	1/23/2013	74.60 - 76.60	45.89	NE	0.000072 J	0.00013	0.00022	0.00011	0.00013	0.00012	0.00012	<0.011	<0.011	<0.0053	0.0055	0.0032 J	0.0013 J	0.00012	0.00012	<0.0021	<0.011	<0.0053 UJ	0.0021 J	0.00024 J J
P-93C	P93C-102610	10/26/2010	94.26 - 96.26	40.69	NE	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.047		<0.009	<0.001 U	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
	P93C-ROX_012611	1/26/2011		40.91	NE	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.01 UJ		<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.00097 U	<0.01	<0.0051
	P93C-ROX-050611	5/6/2011		41.84	NE	0.000041 J J	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	<0.0022 U	<0.005	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.005	<0.01	<0.005
	P93C-ROX-081811	8/18/2011		38.79	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.0092	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.0015 U	<0.01	<0.005
	P93C-ROX-102611	10/26/2011		39.36	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P93C-ROX-012012	1/20/2012		41.57	NE	<0.0001	<0.0001	<0.000051	0.000019 J	0.000027 J	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.0096 U	<0.00037 U	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	P93C-ROX-050812	5/8/2012		42.68	NE	<0.00011	<0.00011	<0.00012 U	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.008	<0.0053	<0.011	<0.00011	<0.00011	<0.0053	<0.011	<0.0053	<0.011	<0.0053
	P93C-ROX-080912	8/9/2012		43.57	NE	0.000022 J	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0043	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.00046 U	<0.01	<0.0052
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.00081 J	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	P93C-ROX-012313	1/23/2013	94.26 - 96.26	45.78	NE	<0.00011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	0.0049	<0.0055	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0055 UJ	<0.011	<0.0055 UJ
P-93D	P93D-102610	10/26/2010	Unknown	40.59	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	P93D-ROX-050511	5/5/2011	125.75 - 127.75	41.96	NE	<0.0001 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.00005 UJ	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.005	<0.0027 U	<0.005	<0.01	<0.0001 UJ	<0.0001 UJ	<0.005	<0.01	<0.005	<0.01	<0.005
	P93D-ROX-081811	8/18/2011		38.94	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.000015 U	<0.0001	<0.005	<0.01	<0.0018 U	<0.01	<0.005
	P93D-ROX-102711	10/27/2011		39.59	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	P93D-ROX-012012	1/20/2012		41.77	NE	<0.00011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011	<0.0054	<0.011	<0.0054	<0.011	<0.0054
	P93D-ROX-050812	5/8/2012		42.96	NE	<0.0001	<0.0001	<0.0001 U	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	P93D-ROX-080812	8/8/2012		43.71	NE	0.000051 J	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.0021 U	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052
	P93D-ROX-110812	11/8/2012		44.98	NE	<0.00011	<0.00011	<0.000055	<0.00011	<0.000055	<0.00011	<0.00011	<0.011	<0.011	<0.0055	<0.0022	<0.0055	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0055	<0.011	<0.0055
	P93D-ROX-012213	1/22/2013	125.75 - 127.75	44.21	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053
P-114	P114-ROX-102811	10/28/2011	32.67 - 52.67	24.73	NE	<0.000095	<0.000095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095	<0.0095	<0.0048	0.0053	<0.0048	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048
	P114-ROX-012012	1/20/2012		27.17	NE	<0.0001	<0.0001	<0.000051	0.000055 J	0.00005 J	0.000058 J	<0.0001	<0.01 UJ	<0.01	<0.0051	<0.0013 U	<0.00044 U	<0.01	<0.0001	0.000053 J	<0.0051	<0.01	<0.0051	<0.01	<0.0051
	P114-ROX-050912	5/9/2012		28.09	NE	<0.0001	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0015 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	P114-ROX-080912	8/9/2012		29.13	NE	0.000029 J	<0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	0.0039	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005	<0.01	<0.005
	P114-ROX-110912	11/9/2012		30.90	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052
	P114-ROX-012313	1/23/2013	32.67 - 52.67	30.22	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.0059	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053 UJ	<0.011	<0.0053 UJ

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																	
						Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Chloroethyl)ether	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	4-Chloro-3-methylphenol (p-Chloro-m-cresol)	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dichlorophenol	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate
					Screening Values (mg/L)	0.21 [3]	2.1 [2]	0.00013 [2]	0.0002 [1]	0.00018 [2]	0.21 [3]	0.00017 [2]	28 [4]	0.7 [3]	0.01 [2]	0.006 [2]	1.4 [2]		0.0015 [2]	0.0003 [2]	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																			
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-051412	5/14/2012	40.00 - 50.00	38.82	NE	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.00065 J	<0.0052	<0.01	<0.0001	<0.0001	<0.0052	<0.01	<0.0052	<0.01	<0.0052
	ROST3PZ-ROX-080712	8/7/2012		39.00	NE	<0.00011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	0.0016 J	<0.011	<0.00011	<0.00011	<0.0022	<0.011	0.0033 J	<0.011	<0.0054
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011 UJ	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011 UJ	<0.0053
	ROST3MW-ROX-012313	1/23/2013	38.18 - 48.18	41.50	NE	0.000059 J	0.000074 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.002	<0.01	<0.005 UJ	<0.01	<0.005 UJ
ROST-4-PZ(C)	ROST4PZ-C-051412	5/14/2012	34.95 - 44.95	39.04	NE	0.000072 J	0.00011	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	0.00027 J	<0.01	<0.005	<0.01	<0.005
	ROST4PZ-C-ROX-072512	7/25/2012		39.10	NE	<0.00011	<0.00018 U	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	0.00042 J	<0.0053	<0.00051 U	<0.0053	<0.011	<0.00011	<0.00011	0.00036 J	<0.011	0.0012 J	0.003 J	<0.0053
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	<0.0001	0.00005 J	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01	<0.0052	0.0045	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.00011	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053 UJ
T-12	T12-ROX-102711	10/27/2011	46.46 - 72.46	38.54	NE	0.00012	0.00017	<0.000051	<0.0001	<0.000051	<0.0001	<0.0001	<0.01	<0.01	<0.0051	0.0025	<0.0051	<0.01	<0.0001	<0.0001	<0.0051	<0.01	<0.0051	0.0109	<0.0051
	T12-ROX-011912	1/19/2012		41.0	NE	<0.00011	0.00014	<0.000056	0.000032 J	0.000035 J	0.000069 J	<0.00011		<0.011 UJ	<0.0056	<0.0017 U	<0.00062 U	<0.011	<0.00011	0.00005 J	0.00029 J	<0.011	<0.0056	0.0095 J	<0.0056
	T12-ROX-050912	5/9/2012		42.62	NE	<0.0001	0.000081 J	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01	<0.01	<0.005	<0.002	<0.005	<0.01	<0.0001	<0.0001	<0.005	<0.01	<0.005	<0.01	<0.005
	T12-ROX-080212	8/2/2012		41.92	NE	0.000082 J	0.0001 J	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011	0.0003 J	<0.011	<0.0054	0.0153	<0.0054
	T12-ROX-110512	11/5/2012		43.91	NE	<0.0001	0.0001	<0.00005	<0.0001	<0.00005	<0.0001	<0.0001	<0.01 UJ	<0.01	<0.005	<0.00054 J	<0.005	<0.01	<0.0001	<0.0001	0.00029 J	<0.01	<0.005	0.0028 J J	<0.005
	T12-ROX-011813	1/18/2013	46.46 - 72.46	44.50	NE	0.000093 J	<0.00013 U	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0065 J	<0.0053 UJ

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																				
						Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)			0.7 [2]	0.14 [2]	0.28 [2]	0.28 [2]	0.00006 [2]		0.00043 [2]	1.4 [2]	0.49 [3]	0.028 [4]	0.35 [2]	0.35 [3]		0.0035 [2]	0.0006 [3]	0.0032 [2]	0.001 [2]	0.21 [3]	0.1 [1]	0.21 [2]
Location	**Sample ID**	**Sample Date**	**Screened Interval (ft btoc)**	**Depth to Water (ft btoc)**	**Product Thickness (ft)**	**ANALYTICAL RESULTS (mg/L)**																				
MW-01	MW-1-111110	11/11/2010	43.41 - 58.41	36.91	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW-1-111110-Dup	11/11/2010		36.91	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW1-ROX-011711	1/17/2011		37.58	NE	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063		<0.0063	<0.0063		<0.0063	<0.013	<0.013	<0.013	<0.0063		<0.0063	<0.013	<0.0063	<0.0063	<0.0063
	MW1-ROX-042911	4/29/2011		38.37	NE	<0.00085 U	<0.0063	<0.0063	<0.0063	<0.0063		<0.0063	<0.0063		<0.0063	<0.013	<0.013	<0.013	<0.0063	<0.0063 UJ	<0.0063	<0.013	<0.0063	<0.0063 UJ	<0.0063
	MW1-ROX-072711	7/27/2011		35.15	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW1-ROX-120511	12/5/2011		37.10	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW1-ROX-011612	1/16/2012	49.98 - 59.98	37.75	NE	<0.0051	<0.0051	0.00011	0.000059 J	<0.0051		<0.00012 U	<0.0051	<0.0002	0.000098 J	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.000098	<0.0051	0.00009 J
	MW1-ROX-050112	5/1/2012		39.09	NE	<0.00054 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	MW1-ROX-073012	7/30/2012		39.39	NE	<0.00043 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J	<0.0053	<0.00011
	MW1-ROX-102612	10/26/2012		41.22	NE	<0.0057	<0.0057	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	MW1-ROX-121712	12/17/2012		41.22	NE	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW1-ROX-011013	1/10/2013	49.98 - 59.98	41.89	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000021 U	<0.0052	<0.0001
MW-02	MW-2-111010	11/11/2010	47.19 - 62.19	38.12	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		0.014	<0.01	0.007 J	<0.019	<0.01		<0.01	<0.01	<0.01	0.006 J	<0.01
	MW2-ROX-011711	1/17/2011		38.67	NE	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048		<0.0048	<0.0048		0.0065	0.0028 J	0.0035 J	<0.0095	<0.0048		<0.0048	<0.0095	<0.0048	<0.0048	<0.0048
	MW02-ROX-051011	5/10/2011		39.14	NE	<0.001 U	<0.0052	<0.0001 UJ	<0.0001 UJ	<0.0052		<0.0001 UJ	<0.0052	0.0049 J J	0.0118 J	0.0062 J	0.0119	<0.01	<0.0052 UJ	<0.0052	<0.0052	<0.01	<0.000052 UJ	0.0057	<0.0001
	MW2-ROX-072711	7/27/2011		36.36	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0098	0.0167	<0.01	0.0193 J	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	0.0086	<0.0001
	MW2-ROX-072711-DUP	7/27/2011		36.36	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0096	0.0169	<0.01	0.0144 J	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	0.0075	<0.0001
	MW2-ROX-112811	11/28/2011	51.32 - 61.32	38.03	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0141	0.0299	<0.01	<0.01	<0.01	<0.005	<0.005 UJ	<0.005	<0.01	<0.00005	<0.005 UJ	<0.0001
	MW2-ROX-011612	1/16/2012		38.89	NE	0.00056 J	<0.0053	<0.00011	0.000052 J	<0.0053		<0.000054 U	<0.0053	0.0107	0.0229	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000066	<0.0053	<0.00011
	MW2-ROX-050112	5/1/2012		40.25	NE	<0.0005 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0105	0.021	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	<0.0001
	MW2-ROX-073012	7/30/2012		40.60	NE	<0.00047 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0097	0.0229	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00004 J	<0.0053	0.000039 J
	MW2-ROX-102612	10/26/2012		42.35	NE	<0.0054	<0.0054	0.000061 J	0.00011	<0.0054		<0.00011	<0.0054	0.0091	0.0182	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00011	<0.0054	0.000046 J
	MW2-ROX-011113	1/11/2013	51.32 - 61.32	42.94	NE	<0.0056	<0.0056	0.00004 J	<0.00011	<0.0056		<0.00011	<0.0056	0.008	0.0162	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000044 J	<0.0056	0.000039 J
MW-03	MW-3-111210	11/12/2010	30.98 - 45.98	24.05	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW3-ROX-011811	1/18/2011		24.92	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW03-ROX-051011	5/10/2011		24.79	NE	<0.0014 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	0.00019 J J	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	<0.005	<0.0001
	MW3-ROX-080311	8/3/2011		22.40	NE	<0.00061 U	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	0.00029	0.00017 J	<0.0095	<0.0095	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.000048	<0.0048 UJ	<0.000095
	MW3-ROX-112911	11/29/2011	34.67 - 44.67	24.06	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	<0.0001
	MW3-ROX-112911-DUP	11/29/2011		24.06	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	MW3-ROX-011612	1/16/2012		24.93	NE	<0.0052	<0.0052	0.000098 J	<0.0001	<0.0052		<0.00015 U	<0.0052	<0.00021	0.00015 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000095	<0.0052	0.000078 J
	MW3-ROX-043012	4/30/2012		26.19	NE	<0.00047 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW3-ROX-072712	7/27/2012		26.60	NE	<0.00066 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J J	<0.0053	<0.00011
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	MW3-ROX-010913	1/9/2013	34.67 - 44.67	29.35	NE	0.0025 J	<0.005	0.000047 J	0.000052 J	<0.005		<0.0001	<0.005	<0.0002	0.000081 J	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.000068	<0.005 UJ	0.000036 J
	MW-4-111210	11/12/2010	42.63 - 57.63	35.38	NE	<0.009	<0.009	<0.009	<0.009	<0.009		<0.009	<0.009		<0.009	<0.009	<0.009	<0.019	<0.009		<0.009	<0.009	<0.009	<0.009	<0.009
	MW4-ROX-011811	1/18/2011		36.04	NE	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052		<0.0052	<0.0052		<0.0052	<0.01	<0.01	<0.01	<0.0052		<0.0052	<0.01	<0.0052	<0.0052	<0.0052
	MW04-ROX-051111	5/11/2011		36.19	NE	<0.0012 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	0.00033 J	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	<0.005	<0.0001
	MW4-ROX-072611	7/26/2011		33.65	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00044	0.00029	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW4-ROX-072611-DUP	7/26/2011		33.65	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00031	0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW4-ROX-121511	12/15/2011		33.99	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.00043 U	<0.0052	0.00028	0.00026	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW4-ROX-011612	1/16/2012		36.00	NE	0.00077 J	<0.0052	0.000047 J	<0.0001	<0.0052		<0.00018 U	<0.0052	0.0006	0.00059	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000057	<0.0052	0.000065 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																			
						Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)			0.7 [2]	0.14 [2]	0.28 [2]	0.28 [2]	0.00006 [2]		0.00043 [2]	1.4 [2]	0.49 [3]	0.028 [4]	0.35 [2]	0.35 [3]		0.0035 [2]	0.0006 [3]	0.0032 [2]	0.001 [2]	0.21 [3]	0.1 [1]	0.21 [2]
Location	**Sample ID**	**Sample Date**	**Screened Interval (ft btoc)**	**Depth to Water (ft btoc)**	**Product Thickness (ft)**	**ANALYTICAL RESULTS (mg/L)**																			
MW-04	MW4-ROX-050312	5/3/2012	46.06 - 56.06	37.45	NE	<0.00062 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00032	0.00025	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW4-ROX-050312-DUP	5/3/2012		37.45	NE	<0.00061 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW4-ROX-072512	7/25/2012		37.63	NE	0.00075 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.00054	0.00045 B	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.0018 J	<0.0001
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	0.00057 J	<0.0051	<0.000047 U	<0.0001	<0.0051		<0.0001	<0.0051	0.00049	0.0004 B	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000031 U	0.0023 J	<0.0001
	MW4-ROX-102912	10/29/2012		39.45	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.00025	0.00016 J	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW4-ROX-011113	1/11/2013	46.06 - 56.06	40.20	NE	<0.0056	<0.0056	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	0.00014 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	0.0608	<0.00011
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	<0.006	<0.006	<0.00012	<0.00012	<0.006		<0.00012	<0.006	<0.00024	0.000099 J	<0.012	<0.012	<0.012	<0.006	<0.006	<0.006	<0.012	<0.00006	0.0665	<0.00012
	MW4-ROX-030413	3/4/2013		40.20	NE	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-05	MW-5-111210	11/12/2010	31.13 - 46.13	23.32	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW5-ROX-011811	1/18/2011		24.15	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW05-ROX-051211	5/12/2011		23.98	NE	<0.0009 U	<0.0053	<0.00011 UJ	<0.00011 UJ	<0.0053		<0.00011 UJ	<0.0053	<0.0053 UJ	0.00004 J J	<0.011	<0.011	<0.011	<0.0053 UJ	<0.0053	<0.0053	<0.011	<0.000053 UJ	<0.0053 UJ	<0.00011
	MW5-ROX-072611	7/26/2011		21.72	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00056	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW5-ROX-072611-DUP	7/26/2011		21.72	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00075	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW5-ROX-112111	11/21/2011	33.97 - 43.97	23.46	NE	0.00052 J	<0.0053	0.00041	<0.00011	<0.0053		<0.00011	<0.0053	0.00051 J	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW5-ROX-011712	1/17/2012		24.76	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0016	<0.00021	<0.011	<0.011	<0.011	<0.0053	0.00078 J	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW5-ROX-050312	5/3/2012		25.89	NE	<0.0005 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	0.00072 J	0.0117	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW5-ROX-072512	7/25/2012		26.18	NE	0.00057 J	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.003	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000025 U	0.0015 J	<0.0001
	MW5-ROX-102912	10/29/2012		28.16	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.0091	0.000084 J	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW5-ROX-011113	1/11/2013	33.97 - 43.97	28.75	NE	<0.0055	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	0.0043	0.000084 J	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.000048 J	<0.0055	<0.00011
MW-06A	MW-6A-110910	11/9/2010	31.98 - 46.98	25.62	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW6A-ROX-011911	1/19/2011		26.36	NE	0.00081 J	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW6A-ROX-051611	5/16/2011		26.10	NE	<0.0016 U	<0.005	<0.0001 UJ	0.00025 J	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	<0.0002 UJ	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	<0.005	<0.0001
	MW6A-ROX-072611	7/26/2011		24.07	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6A-ROX-112111	11/21/2011	34.83 - 44.83	25.49	NE	0.00053 J	0.00093 J	<0.0001	<0.0001	<0.0052		0.0015 J	<0.0052	<0.00021 UJ	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW6A-ROX-112111-DUP	11/21/2011		25.49	NE	0.00069 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001 UJ	<0.0051	<0.0002 UJ	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6A-ROX-011712	1/17/2012		26.74	NE	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00015 U	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6A-ROX-050212	5/2/2012		27.77	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6A-ROX-080112	8/1/2012		28.36	NE	0.00049 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW6A-ROX-011413	1/14/2013	34.83 - 44.83	31.00	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		0.000072 J	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
MW-06B	MW-6B-111610	11/16/2010	64.05 - 69.05	25.47	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.02	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW6B-ROX-011911	1/19/2011		26.21	NE	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW6B-ROX-011911-DUP	1/19/2011		26.21	NE	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051		<0.0051	<0.0051		<0.0051	<0.01	<0.01	<0.01	<0.0051		<0.0051	<0.01	<0.0051	<0.0051	<0.0051
	MW6B-ROX-051611	5/16/2011		25.95	NE	<0.0012 U	<0.0048	<0.000095 UJ	<0.000095 UJ	<0.0048		<0.000095 UJ	<0.0048	<0.0048 UJ	<0.00019 UJ	<0.0095	<0.0095	<0.0095	<0.0048 UJ	<0.0048	<0.0048	<0.0095	<0.0048 UJ	<0.0048	<0.000095
	MW6B-ROX-051611-DUP	5/16/2011		25.95	NE	<0.0014 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	<0.0002 UJ	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	<0.005	<0.0001
	MW6B-ROX-072311	7/23/2011		23.60	NE	<0.00047 U	<0.0053	<0.00021 U	<0.00011	<0.0053		<0.000057 U	<0.0053	<0.00021	<0.000022 U	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000044 U	<0.0053 UJ	<0.00023 U
	MW6B-ROX-110311	11/3/2011		24.67	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6B-ROX-011712	1/17/2012		26.77	NE	0.00055 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00028 U	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW6B-ROX-050212	5/2/2012		27.82	NE	0.00039 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6B-ROX-080112	8/1/2012		28.39	NE	0.0007 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6B-ROX-102412	10/24/2012		30.11	NE	0.00079 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6B-ROX-011713	1/17/2013	64.05 - 69.05	31.11	NE	0.0026 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
MW-06C	MW-6C-111610	11/16/2010	84.95 - 89.95	25.25	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.02	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW6C-ROX-012111	1/21/2011		25.97	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW6C-ROX-051611	5/16/2011		25.76	NE	<0.0013 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	<0.0002 UJ	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	<0.005	<0.0001
	MW6C-ROX-072411	7/24/2011		23.43	NE	<0.0004 U	<0.0053	0.000024 JB	<0.00011	<0.0053		0.000025 J	<0.0053	<0.00021	0.000017 JB	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00002 JB	<0.0053 UJ	0.000023 JB
	MW6C-ROX-110311	11/3/2011		24.47	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00011 U	<0.005	<0.0001
	MW6C-ROX-011712	1/17/2012		26.50	NE	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW6C-ROX-050212	5/2/2012		27.62	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6C-ROX-080112	8/1/2012		28.15	NE	0.001 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																		
						Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)	0.7 [2]	0.14 [2]	0.28 [2]	0.28 [2]	0.00006 [2]		0.00043 [2]	1.4 [2]	0.49 [3]	0.028 [4]	0.35 [2]	0.35 [3]		0.0035 [2]	0.0006 [3]	0.0032 [2]	0.001 [2]	0.21 [3]	0.1 [1]	0.21 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6C-ROX-011713	1/17/2013	84.95 - 89.95	30.88	NE	0.0022 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
MW-06D	MW-6D-111610	11/16/2010	104.72 - 109.72	25.13	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.02	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW6D-ROX-012111	1/21/2011		25.87	NE	0.00071 J	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW6D-ROX-051611	5/16/2011		25.60	NE	<0.0015 U	<0.0055	<0.00011 UJ	<0.00011 UJ	<0.0055		<0.00011 UJ	<0.0055	<0.0055 UJ	<0.00022 UJ	<0.011	<0.011	<0.011	<0.0055 UJ	<0.0055	<0.0055	<0.011	<0.000055 UJ	<0.0055	<0.00011
	MW6D-ROX-072311	7/23/2011		23.29	NE	<0.00046 U	<0.0053	<0.000067 U	<0.00011	<0.0053		<0.000033 U	<0.0053	<0.00021	<0.000018 U	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.00004 U	<0.0053 UJ	<0.000063 U
	MW6D-ROX-110311	11/3/2011		24.31	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW6D-ROX-011712	1/17/2012		26.33	NE	0.00047 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.000085 U	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW6D-ROX-050212	5/2/2012		27.45	NE	0.00047 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.0005 U	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.000052	<0.005	<0.0001
	MW6D-ROX-080212	8/2/2012		30.56	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW6D-ROX-011713	1/17/2013	104.72 - 109.72	30.75	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
MW-07	MW-7-111710	11/17/2010	42.92 - 52.92	36.93	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	0.034	<0.01
	MW-7-111710-Dup	11/17/2010		36.93	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.02	<0.01		<0.01	<0.01	<0.01	0.032	<0.01
	MW7-ROX-012511	1/25/2011		37.52	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		0.0023 J	<0.011	0.00099 J	<0.011	<0.0053		<0.0053	<0.011	<0.0053	0.0737	<0.0053
	MW07-ROX-051311	5/13/2011		37.50	NE	<0.0017 U	<0.0054	<0.00011 UJ	0.0001 J J	<0.0054		<0.00011 UJ	<0.0054	0.0026 J J	0.0049 J	<0.011	0.00082 J	<0.011	<0.0054 UJ	<0.0054	<0.0054	<0.011	0.00017 J	0.0774	0.000044 J
	MW07-ROX-051311D	5/13/2011		37.50	NE	<0.0018 U	<0.0055	<0.00011 UJ	0.000097 J J	<0.0055		<0.00011 UJ	<0.0055	0.0026 J J	0.0047 J	<0.011	0.00078 J	<0.011	<0.0055 UJ	<0.0055	<0.0055	<0.011	0.00017 J	0.0793	0.000051 J
	MW7-ROX-072411	7/24/2011		35.22	NE	<0.00044 U	<0.0054	0.00003 J	0.000066 J	<0.0054		<0.00011	<0.0054	0.0024	0.003	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.000082 B	<0.0513 UJ	0.00003 J
	MW-7-ROX-110211	11/2/2011		35.95	NE	<0.005	<0.005	<0.0001	<0.00028 U	<0.005		<0.0001	<0.005	<0.0043 U	<0.0059 U	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00033 U	0.0702	<0.0001
	MW7-ROX-011812	1/18/2012		38.10	NE	0.00045 J	<0.005	<0.0001	0.00018	<0.005		<0.0001	<0.005	0.0055	0.0069	<0.01	<0.01	<0.01 UJ	<0.005	<0.005	<0.005	<0.01	0.00029	0.15	<0.000042 U
	MW7-ROX-011812-DUP	1/18/2012		38.10	NE	<0.0056	<0.0056	<0.00011	0.0002	<0.0056		<0.00011	<0.0056	0.0057	0.0071	<0.011	<0.011	<0.011 UJ	<0.0056	<0.0056	<0.0056	<0.011	0.00028	0.165	<0.000043 U
	MW7-ROX-050412	5/4/2012		39.19	NE	<0.00095 U	<0.005	0.000039 J	0.00019	<0.005		<0.0001	<0.005	0.0075	0.0087	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00028	0.0944	<0.0001
	MW7-ROX-080712	8/7/2012		39.50	NE	<0.0051	<0.0051	<0.0001	0.00016	<0.0051		<0.0001	<0.0051	0.0055	0.0065	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00019	0.0576	<0.0001
	MW7-ROX-103012	10/30/2012		41.23	NE	<0.0058	<0.0058	<0.00012	0.00023	<0.0058		<0.00012	<0.0058	0.0061 J	0.0077	<0.012	<0.012	<0.012	<0.0058	<0.0058 UJ	<0.0058	<0.012	0.00036	0.0615 J	<0.00005 U
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	<0.0056	<0.0056	<0.00011	0.00026	<0.0056		<0.00011	<0.0056	0.008 J	0.0098	<0.011	<0.011	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00037	0.0812 J	<0.00005 U
	MW7-ROX-011513	1/15/2013	42.92 - 52.92	42.21	NE	<0.0053	<0.0053	0.00004 J	0.00061	<0.0053		<0.00011	<0.0053	0.0187	0.0224	<0.011	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	0.00086	0.0865 J	0.000089 J
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	<0.0052	<0.0052	<0.0001	0.00057	<0.0052		<0.0001	<0.0052	0.0173	0.0207	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.00078	0.0735 J	0.000078 J
MW-08	MW-8-111710	11/17/2010	33.60 - 43.60	27.84	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		0.005 J	<0.01	0.023	<0.019	<0.01		<0.01	<0.01	<0.01	0.053	<0.01
	MW8-ROX-012511	1/25/2011		28.59	NE	<0.005	0.0004 J	<0.005	<0.005	<0.005		<0.005	<0.005		0.0069	0.0195	0.0502	<0.01	<0.005		<0.005	<0.01	<0.005	0.119 J	<0.005
	MW8-ROX-012511-DUP	1/25/2011		28.59	NE	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057		<0.0057	<0.0057		0.0075	0.0228	0.0587	<0.011	<0.0057		<0.0057	<0.011	<0.0057	0.171 J	<0.0057
	MW08-ROX-051311	5/13/2011		28.35	NE	<0.0014 U	<0.0055	0.00003 J J	0.00023 J	<0.0055		<0.00011 UJ	<0.0055	0.0053 J J	0.0075 J	0.0108 J	0.0243	<0.011	0.0041 J J	<0.0055	<0.0055	<0.011	0.000086 J	0.209	0.000028 J
	MW08-ROX-051311D	5/13/2011		28.35	NE	<0.0021 U	<0.0056	<0.00011 UJ	0.00021 J	<0.0056		<0.00011 UJ	<0.0056	0.0055 J J	0.0089 J	0.0105 J	0.0249	<0.011	<0.0056 UJ	<0.0056	<0.0056	<0.011	0.00012 J	0.208	<0.00011
	MW8-ROX-072411	7/24/2011		26.02	NE	<0.0054	0.00077 J	0.000031 JB	0.00034	<0.0054		0.000032 J	<0.0054	0.0055	0.0068	0.0205	0.0486	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00014 B	0.0972 J	0.000031 JB
	MW8-ROX-072411-DUP	7/24/2011		26.02	NE	<0.00038 U	0.00054 J	0.000022 JB	0.0003	<0.0055		0.000042 J	<0.0055	0.0052	0.0064	0.0177	0.0423	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.00011 B	0.0906 J	0.000023 JB
	MW-8-ROX-110211	11/2/2011		27.02	NE	<0.0048	<0.0048	<0.000095	<0.00032 U	<0.0048		<0.000095	<0.0048	<0.0094 U	<0.0119 U	0.0152	0.0242	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.000048	0.134	<0.000095
	MW8-ROX-011812	1/18/2012		29.15	NE	<0.0053	<0.0053	<0.00053	0.00074	<0.0053		<0.00053	<0.0053	0.0165	0.0204	0.0044 J	0.0121	<0.011 UJ	<0.0053	<0.0053	<0.0053	<0.011	0.00041	0.375	<0.00053
	MW8-ROX-050412	5/4/2012		30.21	NE	<0.00063 U	<0.0053	<0.00011	0.00024	<0.0053		<0.00011	<0.0053	0.0085	0.0099	0.0302	0.0657	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00014	0.258 J	<0.00011
	MW8-ROX-050412-DUP	5/4/2012		30.21	NE	<0.005	<0.005	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0086	0.0102	0.0275	0.0569	<0.01	<0.005	<0.005	<0.005	<0.01	0.00014	0.12 J	<0.0001
	MW8-ROX-080712	8/7/2012		30.97	NE	<0.0054	<0.0054	<0.00011	0.00027	<0.0054		<0.00011	<0.0054	0.0091	0.0109	0.0075 J	0.0231	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00015	0.136	<0.00011
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	<0.0056	<0.0056	<0.00011	0.00026	<0.0056		<0.00011	<0.0056	0.0092	0.0111	0.0081 J	0.024	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.00014	0.134	<0.00011
	MW8-ROX-103012	10/30/2012		32.32	NE	0.00082 J	0.00063 J	0.00059 B	0.00053	<0.0053		0.00059 B	<0.0053	0.0097	0.0112	0.0058 J	0.0158	<0.011	<0.0053	<0.0053 UJ	0.00052 J	0.003 J	0.00057	0.165 J	0.00054 B
	MW8-ROX-011513	1/15/2013	33.60 - 43.60	33.30	NE	<0.0056	<0.0056	<0.00011	0.00041	<0.0056		<0.00011	<0.0056	0.011	0.0129	0.0332	0.102	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00016	0.0997 J	<0.00011
MW-09	MW-9-111510	11/15/2010	46.45 - 56.45	39.00	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW9-ROX-012111	1/21/2011		39.62	NE	0.00064 J	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW09-ROX-050611	5/6/2011		40.12	NE	<0.00046 U	<0.0049	0.00002 J J	<0.000097 UJ	<0.0049		<0.000097 UJ	<0.0049	<0.0049 UJ	<0.00019 UJ	<0.0097	<0.0097	<0.0097	<0.0049 UJ	<0.0049	<0.0049	<0.0097	<0.000049 UJ	<0.0049	<0.000097
	MW9-ROX-072311	7/23/2011		37.27	NE	<0.0054	<0.0054	<0.000044 U	<0.00011	<0.0054		<0.000031 U	<0.0054	<0.00022	<0.00022	<0.01 UJ	<0.01 UJ	<0.011	<0.0054	<0.0054	<0.0054	<0.01 UJ	<0.00003 U	<0.005 UJ	<0.000046 U
	MW9-ROX-110111	11/1/2011		37.78	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW9-ROX-011612	1/16/2012		39.50	NE	0.00048 J	<0.0057	<0.00011	<0.00011	<0.0057		<0.000098 U	<0.0057	<0.00023	<0.00023	<0.011	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
	MW9-ROX-050312	5/3/2012		41.03	NE																				
	MW9-ROX-072712	7/27/2012		41.30	NE	<0.00054 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01 UJ	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW9-ROX-011113	1/11/2013	46.45 - 56.45	43.90	NE	<0.0054	<0.0054	0.000066 J	0.00011	<0.0054		<0.00011	<0.0054	<0.00022	0.00014 J	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00012	<0.0054	0.000057 J
	MW-10-111010	11/10/2010		38.97	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW10-ROX-012411	1/24/2011		39.40	NE	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051		<0.0051	<0.0051		<0.0051	<0.01	<0.01	<0.01	<0.0051		<0.0051	<0.01	<0.0051	<0.0051	<0.0051
	MW10-ROX-012411-DUP	1/24/2011		39.40	NE	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW10-ROX-042811	4/28/2011		40.20	NE	<0.00061 U	<0.0048	<0.0048	<0.0048	<0.0048		<0.0048	<0.0048		<0.0048	<0.0095	<0.0095	<0.0095	<0.0048	<0.0048 UJ	<0.0048	<0.0095	<0.0048	<0.0048 UJ	<0.0048
	MW10-ROX-072311	7/23/2011		37.24	NE	<0.005	<0.005	<0.000047 U	<0.0001	<0.005		<0.000031 U	<0.005	<0.0002	<0.00002 U	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.000027 U	<0.005 UJ	<0.000044 U

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																				
						Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)			0.7 [2]	0.14 [2]	0.28 [2]	0.28 [2]	0.00006 [2]		0.00043 [2]	1.4 [2]	0.49 [3]	0.028 [4]	0.35 [2]	0.35 [3]		0.0035 [2]	0.0006 [3]	0.0032 [2]	0.001 [2]	0.21 [3]	0.1 [1]	0.21 [2]
Location	**Sample ID**	**Sample Date**	**Screened Interval (ft btoc)**	**Depth to Water (ft btoc)**	**Product Thickness (ft)**	**ANALYTICAL RESULTS (mg/L)**																				
MW-10	MW10-ROX-110111	11/1/2011	44.43 - 54.43	37.72	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW10-ROX-011612	1/16/2012		39.28	NE	0.00081 J	<0.0053	0.000052 J	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000055 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000072	<0.0053	0.00005 J
	MW10-ROX-050112	5/1/2012		40.86	NE	<0.00041 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.000033 J	<0.0052 UJ	<0.0001
	MW10-ROX-072712	7/27/2012		41.21	NE	<0.00043 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01 UJ	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW10-ROX-102612	10/26/2012		43.08	NE	<0.0056	<0.0056	0.000052 J	0.000086 J	<0.0056		<0.00011	<0.0056	<0.00022	0.00009 J	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000076	<0.0056	0.00004 J
	MW10-ROX-121712	12/17/2012		43.08	NE	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	MW10-ROX-011013	1/10/2013	44.43 - 54.43	44.10	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.000021 U	<0.005	<0.0001
	MW10-ROX-012113	1/21/2013		44.10	NE	<0.01	<0.01	<0.0001	<0.0001	<0.002		<0.0001	<0.01	NA	<0.01	<0.01	<0.01	<0.01	<0.002	<0.004	<0.02	<0.003	<0.004	<0.0001	<0.005	<0.0001
MW-11	MW-11-111710	11/17/2010	41.66 - 51.66	36.39	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW11-ROX-012411	1/24/2011		37.15	NE	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052		<0.0052	<0.0052		<0.0052	<0.01	<0.01	<0.01	<0.0052		<0.0052	<0.01	<0.0052	<0.0052	<0.0052
	MW11-ROX-050611	5/6/2011		37.60	NE	<0.001 U	<0.0048	0.000026 J J	<0.000095 UJ	<0.0048		0.000015 J J	<0.0048	<0.0048 UJ	<0.00019 UJ	<0.0095	<0.0095	<0.0095	<0.0048 UJ	<0.0048	<0.0048	<0.0095	0.000025 J J	<0.0048	0.000026 J
	MW11-ROX-072411	7/24/2011		34.68	NE	<0.0056	<0.0056	0.000025 JB	<0.00011	<0.0056		0.000026 J	<0.0056	<0.00022	0.000023 JB	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000021 JB	<0.0056 UJ	0.000024 JB
	MW-11-ROX-110211	11/2/2011		35.44	NE	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW11-ROX-011712	1/17/2012		37.44	NE																				
	MW11-ROX-043012	4/30/2012		38.66	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW11-ROX-072712	7/27/2012		38.90	NE	<0.00057 U	<0.0058	<0.00012	<0.00012	<0.0058		<0.00012	<0.0058	<0.00023	<0.00023	<0.012	<0.012 UJ	<0.012	<0.0058	<0.0058	<0.0058	<0.012	<0.000058	<0.0058	<0.00012
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054 UJ	<0.00011
	MW11-ROX-011013	1/10/2013	41.66 - 51.66	41.43	NE	<0.005 UJ	<0.005 UJ	<0.0001 UJ	<0.0001 UJ	<0.005 UJ		<0.0001 UJ	<0.005 UJ	<0.0002 UJ	<0.0002 UJ	<0.01 UJ	<0.01 UJ	<0.01 UJ	<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.01 UJ	<0.000015 UJ	<0.005 UJ	<0.0001 UJ
MW-12	MW-12-111510	11/15/2010	41.92 - 51.92	36.63	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW12-ROX-012411	1/24/2011		37.42	NE	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW12-ROX-051211	5/12/2011		37.58	NE	<0.0011 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	<0.0002 UJ	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	<0.005 UJ	<0.0001
	MW12-ROX-072411	7/24/2011		34.88	NE	<0.00039 U	<0.005	0.000035 JB	<0.0001	<0.005		0.000047 J	<0.005	<0.0002	<0.0002	<0.01 UJ	<0.01 UJ	<0.01	<0.005	<0.005	<0.005	<0.01 UJ	0.000024 JB	<0.005 UJ	0.00004 JB
	MW-12-ROX-110211	11/2/2011		35.70	NE	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095	<0.0095	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.000048	<0.0048	<0.000095
	MW-12-ROX-110211-DUP	11/2/2011		35.70	NE	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095	<0.0095	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.000048	<0.0048	<0.000095
	MW12-ROX-011712	1/17/2012		37.70	NE	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00023 U	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	MW12-ROX-011712-DUP	1/17/2012		37.70	NE	<0.0056	<0.0056	<0.00011	<0.00011	<0.0056		<0.00007 U	<0.0056	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
	MW12-ROX-043012	4/30/2012		38.98	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW12-ROX-072712	7/27/2012		39.22	NE	<0.00063 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011 UJ	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW12-ROX-011013	1/10/2013	41.92 - 51.92	41.83	NE	<0.0051	<0.0051	0.000045 J	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000032 U	<0.0051	<0.0001
MW-13	MW13-ROX-012511	1/25/2011	25.57 - 35.57	24.28	NE	<0.0052	<0.0052	<0.0052	0.00044 J	<0.0052		<0.0052	<0.0052		0.0021 J	<0.01	<0.01	<0.01	<0.0052		<0.0052	<0.01	0.0012 J	<0.0052	0.00032 J
	MW13-ROX-051311	5/13/2011		23.65	NE	<0.0013 U	<0.005	0.000032 J J	0.00023 J	<0.005		<0.000099 UJ	<0.005	<0.005 UJ	0.00015 J J	<0.0099	<0.0099	<0.0099	<0.005 UJ	<0.005	<0.005	<0.0099	0.000095 J	<0.005 UJ	0.000089 J
	MW13-ROX-080311	8/3/2011		21.88	NE	<0.00074 U	<0.005	<0.0001	<0.0001	<0.005		0.00004 J	<0.005	<0.0002	0.00011 J	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.000054 U	<0.005 UJ	0.000041 J
	MW13-ROX-110311	11/3/2011		22.85	NE	<0.0056	<0.0056	<0.00011	<0.00033 U	<0.0056		<0.00011	<0.0056	<0.00081 U	<0.0003 U	<0.011	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00018 U
	MW13-ROX-012012	1/20/2012		24.77	NE	<0.00058 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00022	<0.00027 U	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.0015 J	0.000065 J
	MW13-ROX-050712	5/7/2012		25.79	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW13-ROX-080812	8/8/2012		26.67	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00021	<0.00014 UJ	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW13-ROX-110812	11/8/2012		25.30	NE	0.00054 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW13-ROX-012313	1/23/2013	25.57 - 35.57	29.26	NE	0.0027 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	0.00011 J	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
MW-14	MW14-ROX-110911	11/9/2011	Unknown			<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW14-ROX-051012	5/10/2012				0.00043 J	<0.0052	<0.0001	0.00022	<0.0052		<0.0001	<0.0052	0.0101	0.0015	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW14-ROX-080312	8/3/2012	33.42 - 43.42	29.87	NE	<0.0053	<0.0053	<0.00011	0.00071	<0.0053		<0.00011	<0.0053	0.019	0.0038	<0.011	<0.011	<0.011	0.00032 J	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW14-ROX-103112	10/31/2012		32.02	NE	0.00044 J	<0.005	<0.0001	0.00029	<0.005		<0.0001	<0.005	0.0192	0.004	<0.01	<0.01	<0.01	<0.005	<0.005 UJ	<0.005	<0.01	<0.000051	<0.005 UJ	<0.0001
	MW14-ROX-011813	1/18/2013	33.42 - 43.42	33.05	NE	<0.005	<0.005	<0.0001	0.00064	<0.005		<0.0001	<0.005	0.0215	0.0084	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
MW-16	MW16-ROX-012313	1/23/2013	37.43 - 47.43	43.05	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000085 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J J	<0.0053	<0.00011
MW-22	MW22-ROX-012313	1/23/2013	38.21 - 48.21	41.80	NE	0.0024 J	<0.0052	<0.0001	0.00018	<0.0052		<0.0001	<0.0052	0.0276	0.05	0.018	0.0322	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00019	0.0111	<0.0001
	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	0.0024 J	<0.0053	<0.00011	0.00018	<0.0053		<0.00011	<0.0053	0.028	0.0501	0.0187	0.0349	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0002	0.0122	<0.00011
P-54	P-54-111710	11/17/2010	38.00 - 63.00	36.43	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	P54-ROX-012411	1/24/2011		37.24	NE	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	P54-ROX-051111	5/11/2011		37.37	NE	<0.0011 U	<0.005	0.000031 J J	<0.00011 UJ	<0.005		<0.00011 UJ	<0.005	<0.005 UJ	<0.00022 UJ	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.000054 UJ	<0.005	0.000028 J
	P54-ROX-072411	7/24/2011		34.78	NE	<0.00049 U	<0.005	0.000035 JB	<0.0001	<0.005		0.00004 J	<0.005	<0.0002	0.000026 JB	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.000025 JB	<0.005 UJ	0.000031 JB
	P54-ROX-110311	11/3/2011		35.49	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P54-ROX-011712	1/17/2012		37.17	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.000081 U	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	P54-ROX-050412	5/4/2012		38.77	NE	<0.00085 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.0026 J	<0.0001
	P54-ROX-080212	8/2/2012		38.95	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	P54-ROX-103012	10/30/2012		40.70	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																		
						Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)	0.7 [2]	0.14 [2]	0.28 [2]	0.28 [2]	0.00006 [2]		0.00043 [2]	1.4 [2]	0.49 [3]	0.028 [4]	0.35 [2]	0.35 [3]		0.0035 [2]	0.0006 [3]	0.0032 [2]	0.001 [2]	0.21 [3]	0.1 [1]	0.21 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
	P54-ROX-011113	1/11/2013	38.00 - 63.00	41.56	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000032 J	<0.0053	<0.00011
P-55	P55-ROX-103111	10/31/2011	39.82 - 64.82	39.15	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00065	0.00096	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00016	<0.005	<0.0001
	P55-ROX-011912	1/19/2012		41.09	NE	<0.0052	<0.0052	<0.0001	0.00038	<0.0052		<0.0001	<0.0052	0.0048	0.0076	<0.01	<0.01	<0.01 UJ	<0.0052	<0.0052	<0.0052	<0.01	0.00039	<0.0052	<0.0001
	P55-ROX-011912-D	1/19/2012		41.09	NE	<0.0054	<0.0054	<0.00011	0.00032	<0.0054		0.00011	<0.0054	0.0046	0.0076	<0.011	<0.011	<0.011 UJ	<0.0054	<0.0054	<0.0054	<0.011	0.00036	0.0029 J	<0.00011
	P55-ROX-050912	5/9/2012		42.44	NE	<0.0051	<0.0051	<0.0001	0.00069	<0.0051		<0.0001	<0.0051	0.0118	0.0179	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00066	<0.0051	<0.0001
	P55-ROX-012113	1/21/2013	40.85 - 50.85	43.60	NE	<0.01	<0.01	<0.0001	0.00133	<0.002		<0.0001	<0.01	NA	0.042	<0.01	<0.01	<0.002	<0.004	<0.02	<0.003	<0.004	0.00211	0.004 J	<0.0001
	P55-ROX-012113	1/21/2013		43.60	NE	0.00069 J	<0.0051	<0.0001	0.00093	<0.0051		<0.0001	<0.0051	0.0176	0.0254	<0.01	0.0018 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0017	0.0034 J	<0.0001
P-56	P56-ROX-102711	10/27/2011	40.82 - 65.82	39.42	NE	<0.0052	<0.0052	<0.0001	0.00039	<0.0052		<0.0001	<0.0052	0.016	0.0224	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0011	<0.0052	<0.0001
	P56-ROX-011912	1/19/2012		41.81	NE	<0.00044 U	<0.0051	<0.0001	0.00046	<0.0051		<0.0001	<0.0051	0.0186	0.024	<0.01	<0.01	<0.01 UJ	<0.0051	<0.0051	<0.0051	<0.01	0.0012	<0.0051	0.000036 J
	P56-ROX-050812	5/8/2012		43.09	NE	<0.0052	<0.0052	<0.0001	0.00033	<0.0052		<0.0001	<0.0052	0.0186	0.0236	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0011	<0.0052	<0.0001
	P56-ROX-080612	8/6/2012		43.60	NE	<0.00075 U	<0.0051	<0.0001	0.0003	<0.0051		<0.0001	<0.0051	0.0143	0.0178	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0013	<0.0051	<0.0001
	P56-ROX-103112	10/31/2012		44.80	NE	<0.0051	<0.0051	<0.0001	0.00046	<0.0051		<0.0001	<0.0051	0.024	0.0307	<0.01	0.0011 J	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	0.0013	<0.0051 UJ	<0.0001
	P56-ROX-011713	1/17/2013	40.82 - 65.82	45.65	NE	<0.005	<0.005	<0.0001	0.00032	<0.005		<0.0001	<0.005	0.0147	0.0131	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.0012	0.0014 J	<0.0001
P-57	P57-ROX-110811	11/8/2011	40.46 - 65.46	39.20	NE	<0.0054	<0.0054	<0.00054	0.00076	<0.0054		<0.00054	<0.0054	0.0288	0.0388	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0006	0.286	<0.00054
	P57-ROX-021312	2/13/2012		42.13	NE	<0.00046 U	<0.0051	<0.0001	0.00087	<0.0051		<0.0001	<0.0051		0.0403	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00051	0.297	<0.0001
	P57-ROX-050712	5/7/2012		42.92	NE	<0.0052	<0.0052	<0.0001	0.00045	<0.0052		<0.0001	<0.0052	0.0169	0.0212	<0.01	0.0023 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00035	0.141	<0.0001
	P57-ROX-080612	8/6/2012		43.53	NE	<0.00087 U	<0.005	<0.0001	0.0006	<0.005		<0.0001	<0.005	0.0244	0.0326	<0.01	0.0013 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00053	0.0697 J	<0.0001
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	<0.00089 U	<0.005	<0.0001	0.00063	<0.005		<0.0001	<0.005	0.0242	0.0321	<0.01	0.0013 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00054	0.0921 J	<0.0001
	P57-ROX-110512	11/5/2012		44.98	NE	<0.005	<0.005	<0.0001	0.00062	<0.005		0.00005 J	<0.005	0.0249	0.0305	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00048	0.0547 J	<0.0001
	P57-ROX-012913	1/29/2013		45.92	NE	<0.0059	<0.0059	<0.00012	0.00094	<0.0059		<0.00012	<0.0059	0.0369	0.0447	<0.012	<0.012	<0.012	<0.0059	<0.0059	<0.0059	<0.012	0.00074	<0.0059 UJ	<0.00012
P-58	P58-ROX-102811	10/28/2011	40.21 - 65.21	37.31	NE	<0.0049	<0.0049	<0.000097	0.0016	<0.0049		<0.000097	<0.0049	0.049	0.0717	<0.0097	0.0347	<0.0097	<0.0049	<0.0049	<0.0049	<0.0097	0.00085	0.137	0.00012
	P58-ROX-011912	1/19/2012		39.73	NE	<0.00057 U	<0.0053	0.000047 J	0.0017	<0.0053		<0.00011	<0.0053	0.0639	0.0904	<0.011	0.0171	<0.011 UJ	<0.0053	<0.0053	<0.0053	<0.011	0.00084	0.259	0.00012
	P58-ROX-011912-D	1/19/2012		39.73	NE	<0.00059 U	<0.0053	0.000052 J	0.0018	<0.0053		<0.00011	<0.0053	0.0588	0.0821	<0.011	0.0156	<0.011 UJ	<0.0053	<0.0053	<0.0053	<0.011	0.0008	0.225	0.00012
	P58-ROX-050712	5/7/2012		40.90	NE	<0.0051	<0.0051	<0.0001	0.0009 J	<0.0051		<0.0001	<0.0051	0.0351 J	0.0435 J	<0.01	0.0181	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00056 J	0.161	0.0001
	P58-ROX-050712-DUP	5/7/2012		40.90	NE	<0.0052	<0.0052	<0.0001	0.00067 J	<0.0052		<0.0001	<0.0052	0.0267 J	0.0338 J	<0.01	0.0122	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00041 J	0.147	0.000076 J
	P58-ROX-080612	8/6/2012		41.63	NE	<0.00053 U	<0.005	0.000068 J	0.0014	<0.005		<0.0001	<0.005	0.0524	0.0691	<0.01	0.0146	<0.01	<0.005	<0.005	<0.005	<0.01	0.001	0.15	<0.0001 UJ
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	<0.00063 U	<0.005	0.000066 J	0.0015	<0.005		<0.0001	<0.005	0.0596	0.079	<0.01	0.0195	<0.01	<0.005	<0.005	<0.005	<0.01	0.0011	0.19	0.00021 J
	P58-ROX-110612	11/6/2012		43.09	NE	R	R	R	R	R		R	R	R	R	R	R	R	R	R	R	R	R	R	R
	P58-ROX-121012	12/10/2012		43.09	NE	<0.0054	<0.0054	<0.00011	0.0014	<0.0054		<0.00011	<0.0054	0.0616	0.0807	<0.011	0.0124	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00085	0.178	0.00012
	P58-ROX-012213	1/22/2013	40.21 - 65.21	44.21	NE	<0.0054	<0.0054	0.00024	0.003	<0.0054		0.000072 J	<0.0054	0.068	0.0846	<0.011	0.0198	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0023	0.208	0.00077
P-59	P59-ROX-102711	10/27/2011	47.91 - 72.91	41.06	NE	<0.0053	<0.0053	0.00035	0.0012	<0.0053		<0.00011	<0.0053	0.0121	0.0184	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.002	0.0383	0.00057
	P59-ROX-011912	1/19/2012		42.88	NE	<0.0005 U	<0.0057	0.000073 J	0.0008	<0.0057		<0.00011	<0.0057	0.0175	0.0279	0.0045 J	0.0092 J	<0.011 UJ	<0.0057	<0.0057	0.00079 J	<0.011	0.00081	0.0906 J	0.00013
	P59-ROX-011912-DUP	1/19/2012		42.88	NE	<0.00041 U	<0.0051	0.000073 J	0.00063	<0.0051		<0.0001	<0.0051	0.0178	0.029	<0.01	0.0076 J	<0.01 UJ	<0.0051	<0.0051	0.00087 J	<0.01	0.00081	0.0646 J	0.00013
	P59-ROX-050912	5/9/2012		44.11	NE	<0.005	<0.005	0.000062 J	0.00034	<0.005	0.0056 JN	<0.0001	<0.005	0.0117	0.018	<0.01	0.0062 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00053	0.0241	0.000092 J
	P59-ROX-080212	8/2/2012		44.07	NE	<0.0053	<0.0053	0.00015	0.00048	<0.0053		<0.00011	<0.0053	0.0136	0.0207	0.0018 J	0.0032 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.001	0.0419	0.00021
	P59-ROX-110212	11/2/2012		45.98	NE	<0.0053	<0.0053	0.000063 J	0.0005	<0.0053		<0.00011	<0.0053	0.0187	0.0282	0.0065 J	0.0137	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00075	0.0766 J	0.00009 J
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	<0.0052	<0.0052	0.000066 J	0.00048	<0.0052		<0.0001	<0.0052	0.0179	0.0268	0.0056 J	0.0116	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00073	0.0656 J	0.000093 J
	P59-ROX-013013	1/30/2013	47.91 - 72.91	46.60	NE	0.0022 J	<0.0052	<0.000079 U	0.00069	<0.0052		<0.0001	<0.0052	0.0222	0.0305	0.154	0.107	<0.01 UJ	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.001	0.141 J	<0.00011 U
P-66	P66-ROX-110111	11/1/2011	34.72 - 59.72	28.92	NE	<0.005	<0.005	0.00017	0.003	<0.005		<0.0001	<0.005	0.093	0.0295	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.0013	<0.005	0.00029
	P66-ROX-051012	5/10/2012		32.48	NE	0.00054 J	<0.005	0.000056 J	0.0015	<0.005		<0.0001	<0.005	0.0647	0.025	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00057	<0.005	0.000082 J
	P66-ROX-080312	8/3/2012		30.51	NE	<0.0053	<0.0053	0.000082 J	0.0011	<0.0053		<0.00011	<0.0053	0.0541	0.028	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00057	<0.0053	0.00013
	P66-ROX-103112	10/31/2012		34.75	NE	<0.005	<0.005	<0.000051 U	0.0017	<0.005		<0.0001	<0.005	0.0689	0.0268	<0.01	<0.01	<0.01	<0.005	<0.005 UJ	<0.005	<0.01	0.00054	<0.005 UJ	<0.00007 U
	P66-ROX-011813	1/18/2013	34.72 - 59.72	35.70	NE	<0.0053	<0.0053	0.000076 J	0.0019	<0.0053		<0.00011	<0.0053	0.0655	0.0315	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00082	0.0019 J	0.00011
P-74	P74-ROX-103111	10/31/2011	44.43 - 69.43	36.26	NE	<0.005	<0.005	<0.0001	0.00044	<0.005		<0.0001	<0.005	0.0177	0.0265	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00025	0.0127	<0.0001
	P74-ROX-011912	1/19/2012		38.77	NE	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095	<0.0095	<0.0095 UJ	<0.0048	<0.0048	<0.0048	<0.0095	<0.000048	0.002 J	<0.000095
	P74-ROX-050712	5/7/2012		39.92	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.00016 J	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000047 J	0.0089	<0.0001
	P74-ROX-080612	8/6/2012		40.71	NE	<0.00082 U	<0.005	<0.0001	0.00021	<0.005		<0.0001	<0.005	0.009	0.0103	0.0014 J	0.001 J	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00012 U	0.0158	<0.0001
	P74-ROX-110112	11/1/2012		41.72	NE	<0.0052	<0.0052	<0.0001	0.0003	<0.0052		<0.0001	<0.0052	0.0123	0.0136	0.0054 J	0.002 J	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.00013	0.0307 J	<0.0001
	P74-ROX-011713	1/17/2013	44.43 - 69.43	42.65	NE	<0.0051	<0.0051	0.000038 J	0.00038	<0.0051		<0.0001	<0.0051	0.0156	0.0198	<0.01	0.001 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00023	0.0298	0.000048 J
	P93A-102610	10/26/2010	48.17 - 63.17	40.75	NE	<0.009	<0.009	<0.009	<0.009	<0.009		<0.009	<0.009		0.023	<0.009	<0.009	<0.019	<0.009		<0.009	<0.009	<0.009	0.31 D J	<0.009
	P93A-ROX_012611	1/26/2011		40.97	NE	<0.0049	<0.0049	<0.0049	0.00032 J	<0.0049		<0.0049	<0.0049		0.0254	<0.0098	0.064	<0.0098 UJ	<0.0049		<0.0049	<0.0098	0.0004 J	0.172	<0.0049
	P93A-ROX-050511	5/5/2011		41.88	NE	<0.001 U	<0.005	0.000019 J J	0.00044 J	<0.005		<0.0001 UJ	<0.005	0.0172 J	0.0309 J	<0.01	0.0075 J	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	0.0004 J	0.21	0.000026 J
	P93A-ROX-081811	8/18/2011		38.86	NE	<0.001 U	<0.005	<0.000033 U	0.00047	<0.005		<0.0001	<0.005	0.0224	0.0302	<0.01	0.0093 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00043	0.183	0.000037 J
	P93A-ROX-102611	10/26/2011		39.43	NE	<0.005	<0.005	<0.0001	0.00033	<0.005		<0.0001	<0.005	0.0162	0.0258	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00032	0.193	<0.0001
	P93A-ROX-012012	1/20/2012		41.66	NE	<0.00038 U	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	0.0133	0.0188	<0.0095	0.0029 J	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.00022 U	0.234	<0.000095

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CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																		
						Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)			0.7 [2]	0.14 [2]	0.28 [2]	0.28 [2]	0.00006 [2]		0.00043 [2]	1.4 [2]	0.49 [3]	0.028 [4]	0.35 [2]	0.35 [3]		0.0035 [2]	0.0006 [3]	0.0032 [2]	0.001 [2]	0.21 [3]	0.1 [1]	0.21 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
P-93A	P93A-ROX-050812	5/8/2012	48.17 - 63.17	42.75	NE	<0.0051	<0.0051	<0.0001	0.00021	<0.0051		<0.0001	<0.0051	0.0121	0.0151	<0.01	0.0014 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00021	<0.0051	<0.0001
	P93A-ROX-080912	8/9/2012		43.66	NE	<0.0054	<0.0054	<0.00011	0.00021	<0.0054		<0.00011	<0.0054	0.0097	0.013	<0.011	0.00096 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00025	0.208	<0.00011
	P93A-ROX-110712	11/7/2012		45.00	NE	<0.0052	<0.0052	<0.0001	0.00029	<0.0052		<0.0001	<0.0052	0.015	0.0194	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00028 B	0.19	<0.0001
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	<0.0052	<0.0052	<0.0001	0.00037	<0.0052		<0.0001	<0.0052	0.016	0.0206	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00034 B	0.217	<0.0001
	P93A-ROX-012313	1/23/2013		45.89	NE	<0.0052	<0.0052	<0.0001	0.00021	<0.0052		<0.0001	<0.0052	0.0096	0.0093	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00024	0.168	<0.0001
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	<0.0052	<0.0052	<0.0001	0.00019	<0.0052		<0.0001	<0.0052	0.0094	0.009	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00023	0.165	<0.0001
P-93B	P93B-102610	10/26/2010	74.60 - 76.60	40.73	NE	<0.009	<0.009	<0.009	<0.009	<0.009		<0.009	<0.009		<0.009	<0.009	<0.009	<0.019	<0.009		<0.009	<0.009	<0.009	0.094	<0.009
	P93B-ROX_012611	1/26/2011		41.03	NE	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011	<0.011	0.00069 J J	<0.0053		<0.0053	<0.011	<0.0053	0.106	<0.0053
	P93B-ROX-050511	5/5/2011		41.96	NE	<0.001 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	<0.0002 UJ	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	0.000017 J J	0.0933	<0.0001
	P93B-ROX-081811	8/18/2011		38.91	NE	<0.00077 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	0.116	<0.0001
	P93B-ROX-102611	10/26/2011		39.48	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	0.122	<0.0001
	P93B-ROX-012012	1/20/2012		41.72	NE	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095	<0.0095	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.000048	0.107	<0.000095
	P93B-ROX-050812	5/8/2012		42.79	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	P93B-ROX-080912	8/9/2012		43.69	NE	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	0.178	<0.00011
	P93B-ROX-110712	11/7/2012		44.98	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.00026	0.00045 B	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.13	<0.0001
	P93B-ROX-110712-DUP	11/7/2012		44.98	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0003	0.0005 B	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	0.114	<0.0001
	P93B-ROX-012313	1/23/2013	74.60 - 76.60	45.89	NE	0.003 J	<0.0053	0.00013	0.00012	0.00058 J		0.00012	<0.0053	<0.00021	0.00012 J	<0.011	0.0014 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00016	0.176	0.00013
P-93C	P93C-102610	10/26/2010	94.26 - 96.26	40.69	NE	<0.009	<0.009	<0.009	<0.009	<0.009		<0.009	<0.009		<0.009	<0.009	<0.009	<0.019	<0.009		<0.009	<0.009	<0.009	<0.009	<0.009
	P93C-ROX_012611	1/26/2011		40.91	NE	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051		<0.0051	<0.0051		<0.0051	<0.01	<0.01	<0.01 UJ	<0.0051		<0.0051	<0.01	<0.0051	0.0166	<0.0051
	P93C-ROX-050611	5/6/2011		41.84	NE	<0.0011 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	0.00009 J J	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	0.0144	<0.0001
	P93C-ROX-081811	8/18/2011		38.79	NE	<0.00064 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.000033 U	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	0.0046 J	<0.0001
	P93C-ROX-102611	10/26/2011		39.36	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	P93C-ROX-012012	1/20/2012		41.57	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	P93C-ROX-050812	5/8/2012		42.68	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	P93C-ROX-080912	8/9/2012		43.57	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P93C-ROX-012313	1/23/2013	94.26 - 96.26	45.78	NE	0.0025 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
P-93D	P93D-102610	10/26/2010	Unknown	40.59	NE	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	P93D-ROX-050511	5/5/2011	125.75 - 127.75	41.96	NE	<0.0011 U	<0.005	<0.0001 UJ	<0.0001 UJ	<0.005		<0.0001 UJ	<0.005	<0.005 UJ	0.000045 J J	<0.01	<0.01	<0.01	<0.005 UJ	<0.005	<0.005	<0.01	<0.00005 UJ	<0.005	<0.0001
	P93D-ROX-081811	8/18/2011		38.94	NE	<0.0011 U	<0.005	<0.000023 U	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.000042 U	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	0.000021 J
	P93D-ROX-102711	10/27/2011		39.59	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P93D-ROX-012012	1/20/2012		41.77	NE	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00006 U	<0.011	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	P93D-ROX-050812	5/8/2012		42.96	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	P93D-ROX-080812	8/8/2012		43.71	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0004	<0.00042 U	0.00076 J	0.0011 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000054	<0.0052	<0.0001
	P93D-ROX-110812	11/8/2012		44.98	NE	<0.0055	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	P93D-ROX-012213	1/22/2013	125.75 - 127.75	44.21	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00027	0.00036	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000042 J	<0.0053	<0.00011
P-114	P114-ROX-102811	10/28/2011	32.67 - 52.67	24.73	NE	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095	<0.0095	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.000048	<0.0048	<0.000095
	P114-ROX-012012	1/20/2012		27.17	NE	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		0.000066 J	<0.0051	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	P114-ROX-050912	5/9/2012		28.09	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.00005	<0.0052	<0.0001
	P114-ROX-080912	8/9/2012		29.13	NE	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P114-ROX-110912	11/9/2012		30.90	NE	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	P114-ROX-012313	1/23/2013		30.22	NE	0.0024 J	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
CUMULATIVE SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

						SVOCs																		
						Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	Isophorone (3,5,5-trimethyl-2-cyclohexene-1-one)	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	3-Nitroaniline	Nitrobenzene	N-Nitrosodimethylamine	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
			Screening Values (mg/L)			0.7 [2]	0.14 [2]	0.28 [2]	0.28 [2]	0.00006 [2]		0.00043 [2]	1.4 [2]	0.49 [3]	0.028 [4]	0.35 [2]	0.35 [3]		0.0035 [2]	0.0006 [3]	0.0032 [2]	0.001 [2]	0.21 [3]	0.1 [1]	0.21 [2]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																		
ROST-3-MW (ROST-3-PZ)	ROST3PZ-ROX-051412	5/14/2012	40.00 - 50.00	38.82	NE	<0.00043 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0002 J	0.00017 J	<0.01	0.0087 J	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000043 J	<0.0052	<0.0001
	ROST3PZ-ROX-080712	8/7/2012		39.00	NE	0.0049 J	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00031	0.00038 J	<0.011	0.0056 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	0.0017 J	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00028	0.00031	<0.011	0.0019 J	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	ROST3MW-ROX-012313	1/23/2013	38.18 - 48.18	41.50	NE	<0.005	<0.005	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0061	0.0087	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00068	<0.005	<0.0001
ROST-4-PZ(C)	ROST4PZ-C-051412	5/14/2012	34.95 - 44.95	39.04	NE	<0.00058 U	<0.005	<0.0001	0.00022	<0.005		<0.0001	<0.005	0.0044	0.0049	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00082	<0.005	0.000041 J
	ROST4PZ-C-ROX-072512	7/25/2012		39.10	NE	0.0015 J	<0.0053	<0.000041 U	0.00032 B	<0.0053		<0.00011	<0.0053	0.0102	0.0136	<0.011	0.00098 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0014	0.0023 J	<0.000081 U
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	0.0018 J	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0004	0.00041	<0.01	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0002	<0.0052	<0.0001
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000064 J	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00012	<0.0053	<0.00011
T-12	T12-ROX-102711	10/27/2011	46.46 - 72.46	38.54	NE	<0.0051	<0.0051	<0.0001	0.0006	<0.0051		<0.0001	<0.0051	0.0264	0.0415	<0.01	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0015	0.0167	0.0001
	T12-ROX-011912	1/19/2012		41.0	NE	<0.00048 U	<0.0056	0.000044 J	0.00043	<0.0056		0.000061 J	<0.0056	0.0158	0.0186	0.00091 J	<0.011	<0.011 UJ	<0.0056	<0.0056	<0.0056	<0.011	0.00054	0.0188	0.000067 J
	T12-ROX-050912	5/9/2012		42.62	NE	<0.005	<0.005	<0.0001	0.00024	<0.005		<0.0001	<0.005	0.0164	0.0254	<0.01	0.0026 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00062	0.0094	0.000039 J
	T12-ROX-080212	8/2/2012		41.92	NE	<0.0054	<0.0054	0.000046 J	0.00029	<0.0054		<0.00011	<0.0054	0.0199	0.0294	0.0021 J	0.0027 J	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00089	0.042	0.000062 J
	T12-ROX-110512	11/5/2012		43.91	NE	<0.005	<0.005	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0232	0.0354	0.00096 J	0.0015 J	<0.01	<0.005	<0.005	<0.005	<0.01	0.00083	<0.005 UJ	0.000048 J
	T12-ROX-011813	1/18/2013		44.50	NE	<0.0053	<0.0053	<0.00011	0.00046	<0.0053		<0.00011	<0.0053	0.0241	0.0322	<0.011	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0011	0.0265	0.000067 J

Notes:

[1] Denotes screening critieria source from 35 I.A.C. 620, Subpart D.

[2] Denotes screening critieria source from 35 I.A.C. 742 (TACO), Appendix B, Table E.

[3] Denotes screening criteria source from IL EPA Toxicity Assessment Unit (Chemicals not in TACO, Tier I Tables).

[4] Denotes screening criteria source R08-18, Final Admendments to Groundwater Quality Standards, 35 I.A.C. 620.

[5] Beginning in 4Q12, naphthalene was analyzed via 8260 VOC, and prior historic results were reported by PAH analysis.

	Indicates a historical exceedan `
	Indicates a current exceedance of screening criteria.
R	Indicates current quarter analyte result was rejected.
NA	Indicates current quarter analyte result was not analyzed.
	Empty cell without a value indicates previous quarter analyte result was rejected or the analyte was not part of method list when sampled.

LABORATORY QUALIFIERS:

B = Target analyte or common lab contaminant was identified in the method blank indicating possible field or lab contamination.
D = The result is from a diluted sample.
J = The analyte was detected below the reporting limit. Result is estimated.
E=The value exceeds calibration range.
JN = Estimated value for tentatively identified compound (library search).

URS QUALIFIERS:

J = The result is estimated.
UJ = Estimated nondetect.
U = Result is non-detect.

The following EVS Descriptions and Assumptions apply to **Figure 6.** C Tech Development Corporation's Environmental Visualization System PRO, Version 9.52 (EVS-PRO) was used to model the estimated distribution of benzene in the groundwater.

EVS Descriptions and Assumptions:

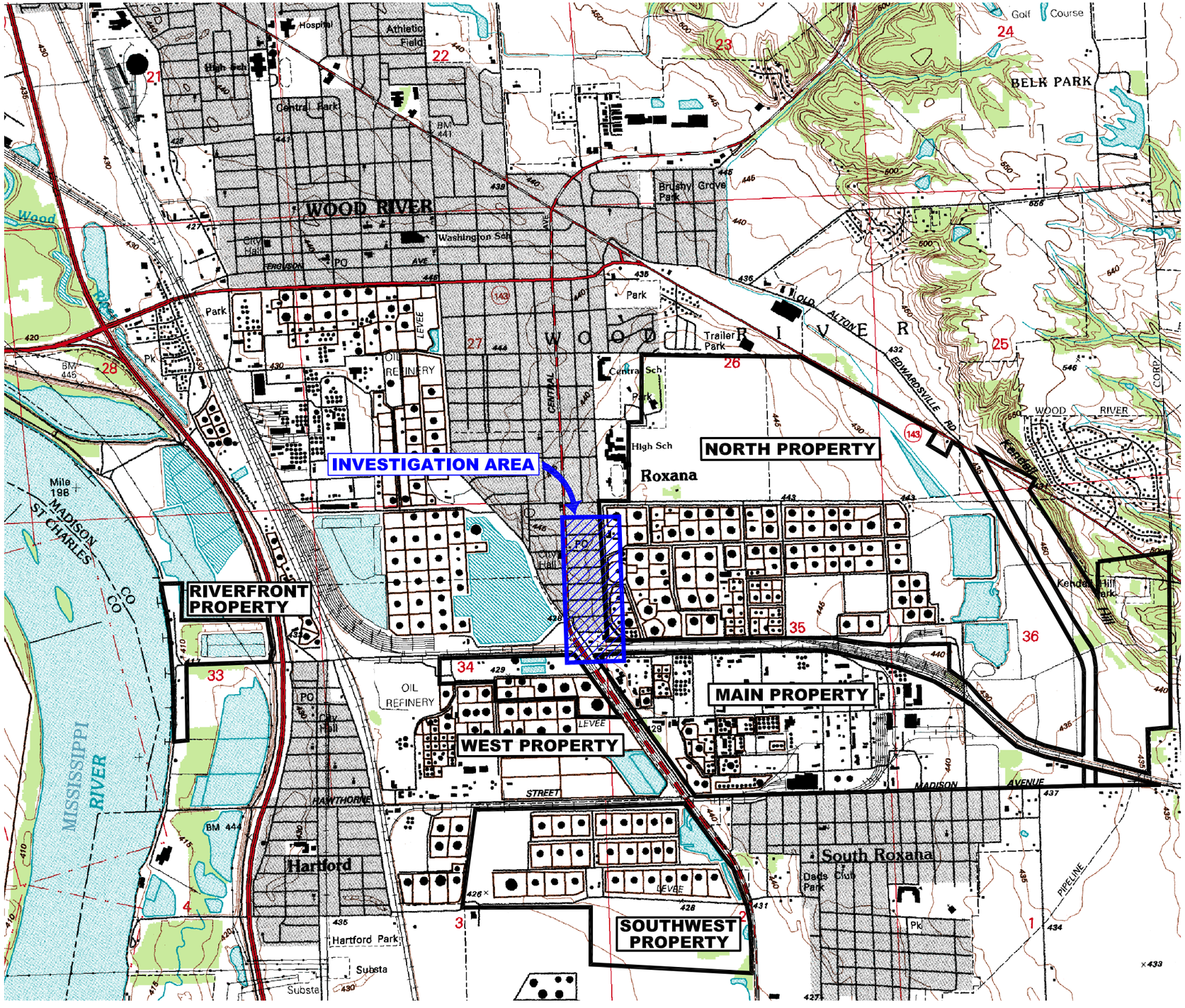
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

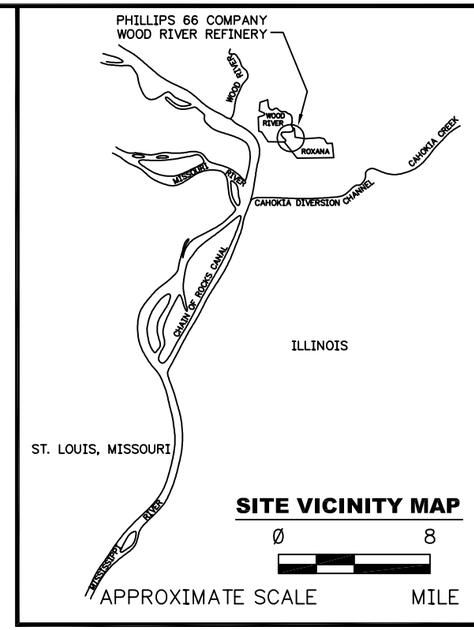
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

More simply, if each soil boring location were represented by a tack pushed into the model's surface and a rubber band stretched around them, the model would be represented by the space inside the rubber band.

Duplicate Samples – Analytical concentrations from duplicate samples collected at the same location and depth were averaged.

Detection Limits – In cases where the lab reported a non-detect, half the value of the lab detection limit was used in the model. This conservative method is based on the assumption that the soil is likely not free of benzene but the quantity contained is lower than detectable at the analyzed dilution.





LEGEND

WOOD RIVER REFINERY PROPERTY BOUNDARY

INVESTIGATION AREA

SOURCE: ELECTRONIC USGS DIGITAL RASTER GRAPHIC 7.5 MINUTE TOPOGRAPHIC MAP OF WOOD RIVER, IL–MO REVISED 1994.

CONTOUR INTERVAL = 5 FT

Ø 2ØØØ

APPROXIMATE SCALE MILE

N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY: djd April 2013 DSGN. BY: djd CHKD. BY: kh	1Q13 Investigation Area Location Map	FIG. NO. 1

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIG 1 INVESTIGATION AREA LOCATION MAP.DWG Last edited: 04/03/13 @ 11:18 a.m. @ WCC-ST.LOUIS

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: APR. 03, 13 @ 11:21 a.m. by: david_deguire

LEGEND

- INTERIM GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- INTERIM GROUNDWATER PIEZOMETER SAMPLING LOCATION
- GROUNDWATER PIEZOMETER LOCATION NOT SAMPLED

NOTES:
1. * INDICATES PERCHED GROUNDWATER MONITORING WELLS.
2. GROUNDWATER MONITORING WELLS MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, AND MW-22 WERE INSTALLED DURING 4Q12.
3. GROUNDWATER MONITORING WELLS MW-16 AND MW-22 WERE ADDED TO THE GROUNDWATER MONITORING PROGRAM IN 1Q13.
4. PIEZOMETER ROST-3-PZ WAS REPLACED BY GROUNDWATER MONITORING WELL ROST-3-MW DURING 4Q12.
5. GROUNDWATER MONITORING WELL P-55 WAS REPLACED DURING 4Q12.

FIRST ST
PZ-1(101)
PZ-1(85)
MW-9
MW-10
T-1
NORTH PROPERTY
SECOND ST
P-55
ROST-4-PZ(A)
ROST-4-PZ(B)
ROST-4-PZ(C)
ROST-4-PZ
THIRD ST
ROST-3-MW
ROST-4-PZ(D)
ROST-4-PZ(E)
ROST-4-PZ(F)
ROST-4-PZ(G)
P-60-S
P-60-12
*P-60-12S
A-28
T-24
P-68
MW-11
P-54
* ROST-5-PZ
P-60-13
*P-60-13S
MW-17
T-12
FOURTH ST
MW-22
* ROST-7-PZ
P-69
A-33
A-27
P-70
MW-18
VILLAGE OF ROXANA
P-74
MW-19
P-59
P-61
FIFTH ST
* ROST-21-PZ
MW-16
GP-9-PZ
PZ-2(84)
PZ-2(70.5)
* ROST-10-PZ
MW-12
MW-20
P-56
HIGHWAY 111 (S. CENTRAL AVE)
SIXTH ST
CHAFFEE ST
WOOD RIVER REFINERY
MW-2
MW-1
BP
SEVENTH ST
T-6
MW-21
P-57
MW-4
P-93A
P-93B
P-93C
P-93D
MW-3
P-73
EIGHTH ST
MW-7
MW-5
MW-8
1986 APPROXIMATE BENZENE RELEASE SITE
P-58
RAND AVENUE
P-66
P-75
MW-13
MW-6A
MW-6B
MW-6C
MW-6D
WEST PROPERTY
MAIN PROPERTY
MW-14
P-114

Ø 200
SCALE FEET
N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY:djd April 2013 DSGN. BY:lr CHKD. BY:kh	1Q13 Groundwater Monitoring Well Sampling Locations	FIG. NO. 2

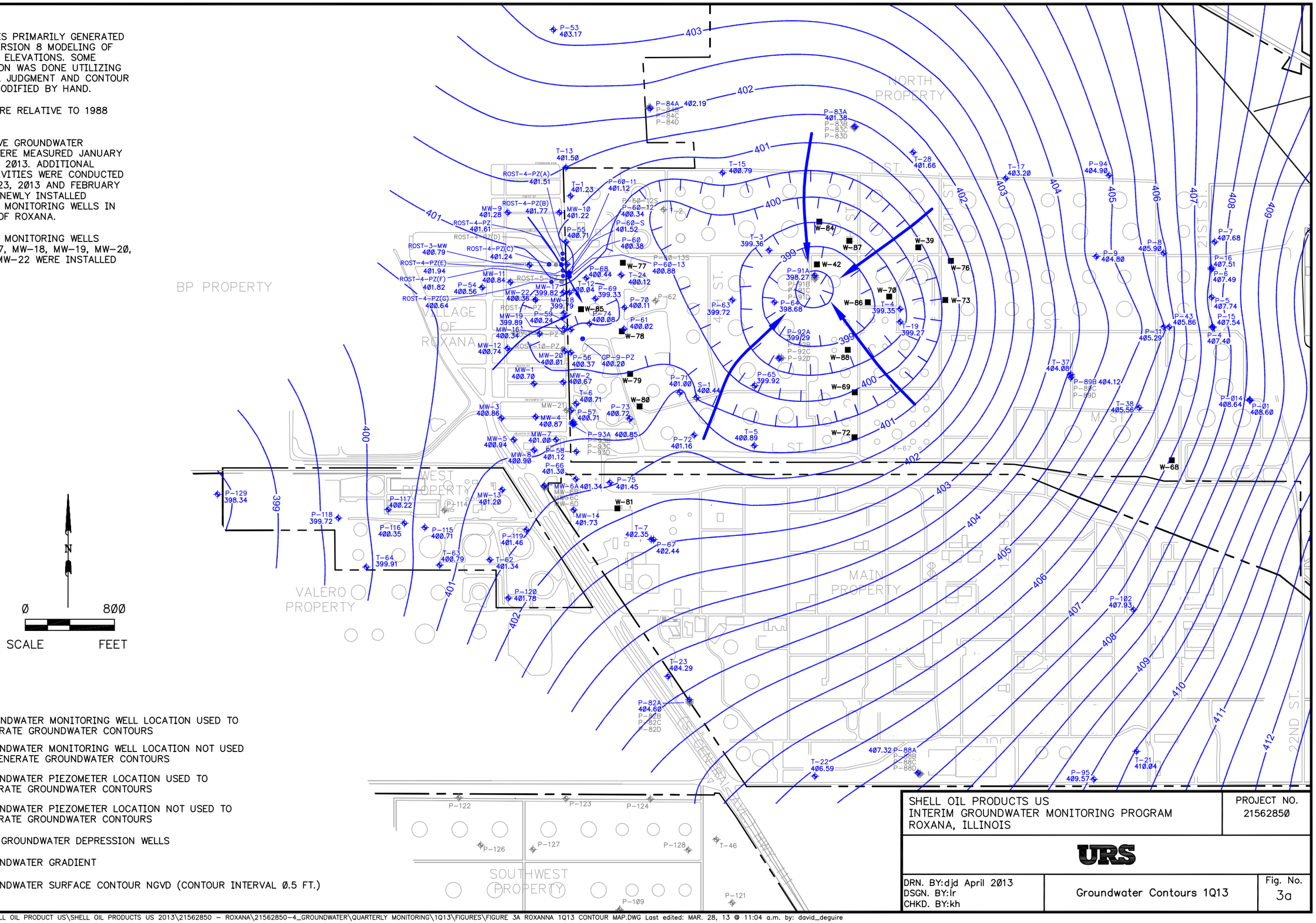
NOTES:

1) CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.

2) ELEVATIONS ARE RELATIVE TO 1988 USGS DATUM.

3) COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED JANUARY 2–4 AND 7–8 2013. ADDITIONAL GAUGING ACTIVITIES WERE CONDUCTED ON JANUARY 23, 2013 AND FEBRUARY 11, 2013 FOR NEWLY INSTALLED GROUNDWATER MONITORING WELLS IN THE VILLAGE OF ROXANA.

4) GROUNDWATER MONITORING WELLS MW–16, MW–17, MW–18, MW–19, MW–20, MW–21, AND MW–22 WERE INSTALLED DURING 4Q12.



LEGEND

- GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER PIEZOMETER LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER PIEZOMETER LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- WRR GROUNDWATER DEPRESSION WELLS
- GROUNDWATER GRADIENT
- 407 — GROUNDWATER SURFACE CONTOUR NGVD (CONTOUR INTERVAL 0.5 FT.)

SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 21562850

URS

DRN. BY:djd April 2013
DSGN. BY:lr
CHKD. BY:kh

Groundwater Contours 1Q13

Fig. No. 3a

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIGURE 3A ROXANNA 1Q13 CONTOUR MAP.DWG Last edited: MAR. 28, 13 @ 11:04 a.m. by: david_deguire

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIGURE 3B ROXANA 1Q13 CONTOUR MAP.DWG Last edited: MAR. 28, 13 @ 12:14 p.m. by: david_deguire

LEGEND

- GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER PIEZOMETER LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER PIEZOMETER LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- WRR GROUNDWATER PRODUCTION WELL
- –404– GROUNDWATER SURFACE CONTOUR NGVD (CONTOUR INTERVAL Ø.5 FT)
- GROUNDWATER GRADIENT

NOTES:

1) CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.

2) ELEVATIONS ARE RELATIVE TO 1988 USGS DATUM.

3) COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED JANUARY 2–4, AND 7–8, 2013. ADDITIONAL GAUGING ACTIVITIES WERE CONDUCTED ON JANUARY 23, 2013 AND FEBRUARY 11, 2013 FOR NEWLY INSTALLED GROUNDWATER MONITORING WELLS IN THE VILLAGE OF ROXANA.

4) GROUNDWATER MONITORING WELLS MW–16, MW–17, MW–18, MW–19, MW–20, MW–21, AND MW–22 WERE INSTALLED DURING 4Q12.

FIRST ST
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFEE ST
RAND AVENUE
NORTH PROPERTY
VILLAGE OF ROXANA
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
PUBLIC WORKS YARD
BP
1986 APPROXIMATE BENZENE RELEASE SITE

T-1 401.23
PZ-1(101)
PZ-1(85)
MW-9 401.28
MW-10 401.22
401
P-55 400.71
ROST-4-PZ(A)
ROST-4-PZ 401.61
ROST-4-PZ(B) 401.77
P-60-11 401.12
ROST-4-PZ(C) 401.24
ROST-4-PZ(D)
P-60-12 400.34
P-60-12S
P-60 400.38
P-60-S 401.52
W–77
ROST-3-MW 400.79
ROST-4-PZ(E) 401.94
ROST-4-PZ(F) 401.82
A–28
MW-11 400.84
P-60-13 400.88
P-60-13S
T-24 400.12
P-68 400.44
P-54 400.56
ROST-4-PZ(G) 400.64
ROST-5-PZ
MW-17 399.82
MW-22 400.36
ROST-7-PZ
T-12 400.04
P-69 399.33
P-70 400.11
MW-18 399.79
W–85
A–27
P-74 400.08
400
MW-19 399.89
P-59 400.24
P-61 400.02
W–78
ROST-21-PZ
MW-16 400.34
GP-9-PZ 400.20
PZ-2(84)
PZ-2(70.5)
ROST-10-PZ
MW-12 400.74
MW-20 400.01
P-56 400.37
MW-1 400.70
MW-2 400.67
W–79
T-6 400.71
MW-21
P-57 400.71
MW-4 400.87
MW-3 400.86
P-93A 400.85
P-93B
P-93C
P-93D
P-73 400.72
MW-7 401.00
MW-5 400.94
MW-8 400.94
401
P-58 401.12
MW-13 401.20
401.34 MW-6A
MW-6B
MW-6C
MW-6D
P-66 401.30
P-75 401.45
P-114
MW-14 401.73
W–81

Ø 200 SCALE FEET

N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY:djd April 2013 DSGN. BY:lr CHKD. BY:kh	Groundwater Contours 1Q13– West Fenceline	FIG. NO. 3b

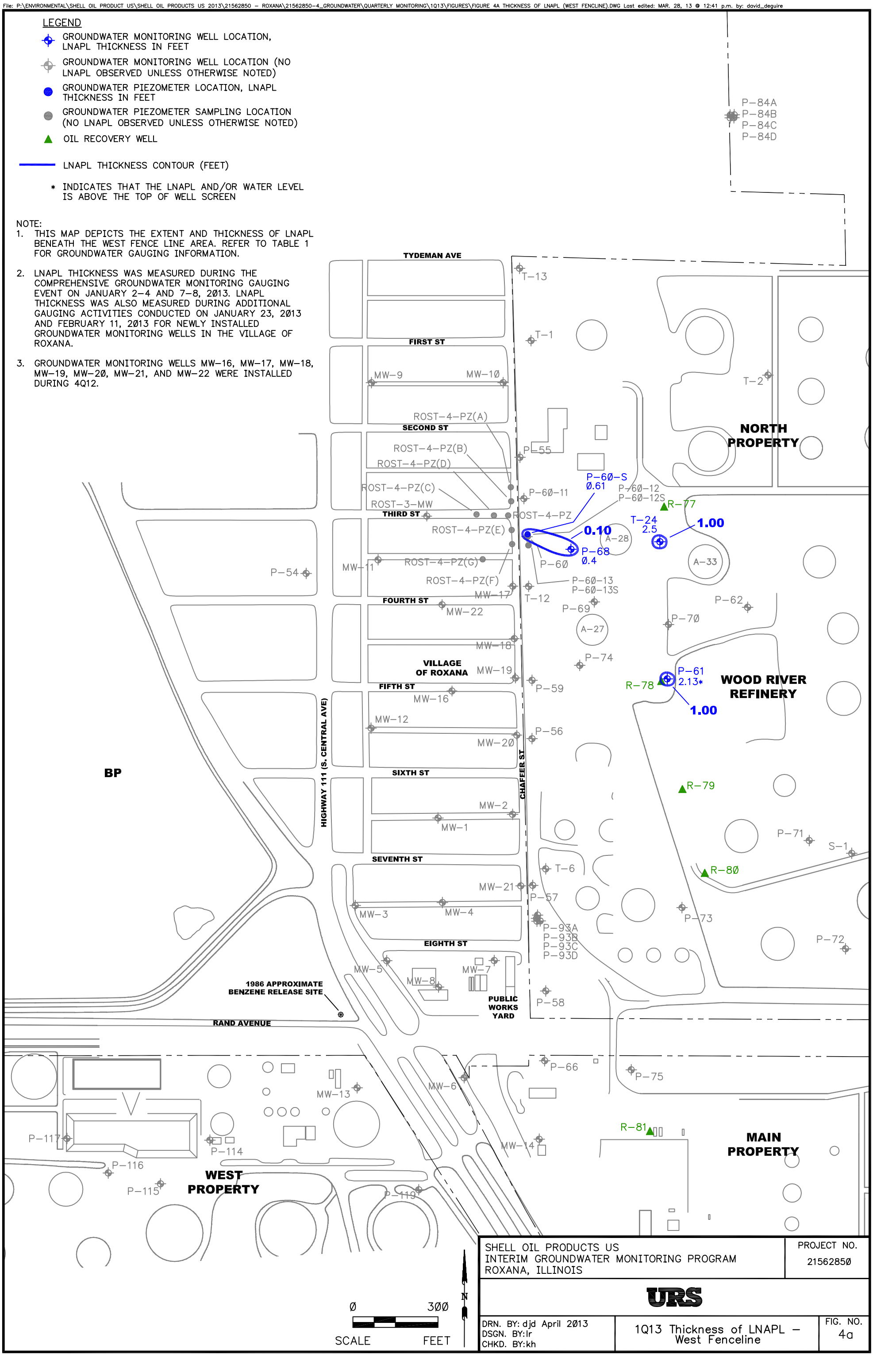
File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIGURE 4A THICKNESS OF LNAPL (WEST FENCLINE).DWG Last edited: MAR. 28, 13 @ 12:41 p.m. by: david_deguire

LEGEND

- GROUNDWATER MONITORING WELL LOCATION, LNAPL THICKNESS IN FEET
- GROUNDWATER MONITORING WELL LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- GROUNDWATER PIEZOMETER LOCATION, LNAPL THICKNESS IN FEET
- GROUNDWATER PIEZOMETER SAMPLING LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- OIL RECOVERY WELL
- LNAPL THICKNESS CONTOUR (FEET)
- * INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN

NOTE:

1. THIS MAP DEPICTS THE EXTENT AND THICKNESS OF LNAPL BENEATH THE WEST FENCE LINE AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON JANUARY 2–4 AND 7–8, 2013. LNAPL THICKNESS WAS ALSO MEASURED DURING ADDITIONAL GAUGING ACTIVITIES CONDUCTED ON JANUARY 23, 2013 AND FEBRUARY 11, 2013 FOR NEWLY INSTALLED GROUNDWATER MONITORING WELLS IN THE VILLAGE OF ROXANA.
3. GROUNDWATER MONITORING WELLS MW–16, MW–17, MW–18, MW–19, MW–20, MW–21, AND MW–22 WERE INSTALLED DURING 4Q12.



SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY: djd April 2013 DSGN. BY:lr CHKD. BY:kh	1Q13 Thickness of LNAPL – West Fenceline	FIG. NO. 4a

LEGEND

- GROUNDWATER MONITORING WELL LOCATION GAUGED, LNAPL THICKNESS IN FEET
- GROUNDWATER MONITORING WELL LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- GROUNDWATER PIEZOMETER SAMPLING LOCATION
- GROUNDWATER PIEZOMETER SAMPLING LOCATION NOT SAMPLED
- OIL RECOVERY WELL
- LNAPL THICKNESS CONTOUR (FEET)

* INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN

NOTE:

1. THIS MAP DEPICTS THE EXTENT AND THICKNESS OF LNAPL BENEATH THE WEST FENCE LINE AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING A COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON JANUARY 2–4 AND 7–8, 2013. LNAPL THICKNESS WAS ALSO MEASURED DURING ADDITIONAL GAUGING ACTIVITIES CONDUCTED ON JANUARY 23, 2013 AND FEBRUARY 11, 2013 FOR NEWLY INSTALLED GROUNDWATER MONITORING WELLS IN THE VILLAGE OF ROXANA.
3. GROUNDWATER MONITORING WELLS MW–16, MW–17, MW–18, MW–19, MW–20, MW–21, AND MW–22 WERE INSTALLED DURING 4Q12.

NORTH PROPERTY

BP PROPERTY

WEST PROPERTY

MAIN PROPERTY

SHELL OIL COMPANY PROPERTY

VILLAGE OF HARTFORD

VALERO PROPERTY

ILLINOIS TERMINAL RAILROAD

RAND AVE.

T ST.

L ST.

M ST.

R ST.

O ST.

4TH ST.

7TH ST.

10TH ST.

12TH ST.

21ST ST.

22ND ST.

ROUTE 1

0 1000 SCALE FEET

N

REFERENCE: SHELL DRAWING E–36137–12

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY: djd April 2013 DSGN. BY: lr CHKD. BY: kh	1Q13 Thickness of LNAPL	FIG. NO. 4b

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850–4_GROUNDWATER QUARTERLY MONITORING\1Q13\FIGURES\FIGURE 4B THICKNESS OF LNAPL (REFINERY).DWG Last edited: MAR. 28, 13 @ 11:31 a.m. by: david_deguire

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LEGEND

- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION (NOT SAMPLED)
- GROUNDWATER PIEZOMETER SAMPLING LOCATION
- GROUNDWATER PIEZOMETER LOCATION (NOT SAMPLED)

NOTES:

1. PER DIRECTION FROM IEPA, ANALYTICAL RESULTS ARE SCREENED AGAINST CRITERIA OUTLINED IN THE WRR RCRA PART B PERMIT.
2. GROUNDWATER CLASS I SCREENING CRITERIA.

Analyte	Screening Criteria (mg/L)
Benzene	0.005
Chlorobenzene	0.1
Ethylbenzene	0.7
MTBE	0.07
Naphthalene	0.14
Toluene	1
1,3,5-Trimethylbenzene	0.07
Xylenes (total)	10
Benzo(a)anthracene	0.00013
Benzo(a)pyrene	0.0002
bis(2-Ethylhexyl)phthalate	0.006
Hexachlorobenzene	0.00006
2-Methylnapthalene	0.028
Phenol	0.1

3. J = THE TARGET ANALYTE WAS DETECTED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.
4. MULTIPLE RESULTS (e.g., 1230/1320) INDICATE DUPLICATE SAMPLES.
5. WELLS IDENTIFIED IN BLUE WITH NO DATA BOX INDICATE THE RESULTS DID NOT EXCEED SCREENING CRITERIA.
6. GROUNDWATER MONITORING WELLS MW-16 AND MW-22 WERE ADDED TO THE GROUNDWATER MONITORING PROGRAM IN 1Q13.
7. PIEZOMETER ROST-3-PZ WAS REPLACED BY GROUNDWATER MONITORING WELL ROST-3-MW DURING 4Q12.
8. GROUNDWATER MONITORING WELL P-55 WAS REPLACED DURING 4Q12.

Sample Location	P-55
Sampled 1/21/13	Result (mg/L)
Benzene	0.571
2-Methynaphthalene	0.042
Confirmation Sample 1/21/13	Result (mg/L)
Benzene	0.538

Sample Location	ROST-3-MW
Sampled 1/23/13	Result (mg/L)
Benzene	0.0051 J

Sample Location	T-12
Sampled 1/18/13	Result (mg/L)
Benzene	2.03
2-Methylnaphthalene	0.0322

Sample Location	MW-22
Sampled 1/23/13	Result (mg/L)
Benzene	2.12/2.09
Ethylbenzene	3.45/3.19
Naphthalene	0.396/0.377
Toluene	10.5/9.06
1,3,5-Trimethylbenzene	0.288/0.291
Xylenes (total)	11.3/10.5
2-Methylnaphthalene	0.05/0.0501

Sample Location	P-59
Sampled 1/30/13	Result (mg/L)
Benzene	12.1
Ethylbenzene	1.9
Naphthalene	0.376
2-Methylnaphthalene	0.0305
Phenol	0.141 J

Sample Location	P-74
Sampled 1/17/13	Result (mg/L)
Benzene	4.99
Naphthalene	0.141
1,3,5-Trimethylbenzene	0.0973 J

Sample Location	P-56
Sampled 1/17/13	Result (mg/L)
Benzene	0.191

Sample Location	MW-2
Sampled 1/11/13	Result (mg/L)
Benzene	0.0192
1,3,5-Trimethylbenzene	0.105

Sample Location	P-57
Sampled 1/29/13	Result (mg/L)
Benzene	114
Chlorobenzene	1.43
Ethylbenzene	1.1
2-Methylnaphthalene	0.0447

Sample Location	MW-4
Sampled 1/11/13	Result (mg/L)
Benzene	9.04 J/8.96 J
Confirmation Sample 3/4/13	Result (mg/L)
Benzene	21.4
MTBE	0.112

Sample Location	P93A	P93B	P93D
Sampled 1/22/13-1/23/13	Result (mg/L)	Result (mg/L)	Result (mg/L)
Benzene	101/98.5	415	0.106
Benzo(a)anthracene		0.00022	
bis(2-Ethylhexyl)phthalate	0.0099/0.011		
Hexachlorobenzene		0.00058 J	
Phenol	0.168/0.165	0.176	

Sample Location	MW-5
Sampled 1/11/13	Result (mg/L)
Benzene	0.0072

Sample Location	MW-7
Sampled 1/15/13	Result (mg/L)
Benzene	1230/1320

Sample Location	MW-8
Sampled 1/15/13	Result (mg/L)
Benzene	1120 J
Toluene	2.09

Sample Location	P-58
Sampled 1/22/13	Result (mg/L)
Benzene	552
Ethylbenzene	1.27
Benzo(a)anthracene	0.00038
Benzo(a)pyrene	0.00022
2-Methylnaphthalene	0.0846
Phenol	0.208

Sample Location	MW-6A
Sampled 1/14/13	Result (mg/L)
Benzene	0.0276

Sample Location	MW-13
Sampled 1/23/13	Result (mg/L)
Benzene	0.0067 J

Sample Location	P-66
Sampled 1/18/13	Result (mg/L)
Benzene	0.0896
MTBE	0.104
2-Methylnaphthalene	0.0315

SECOND ST, THIRD ST, FOURTH ST, FIFTH ST, SIXTH ST, SEVENTH ST, EIGHTH ST, RAND AVENUE, HIGHWAY 111 (S. CENTRAL AVE), CHAFFEE ST

VILLAGE OF ROXANA, NORTH PROPERTY, WOOD RIVER REFINERY, WEST PROPERTY, MAIN PROPERTY, BP

1986 APPROXIMATE BENZENE RELEASE SITE

MW-9, MW-10, MW-11, MW-12, MW-16, MW-17, MW-18, MW-19, MW-20, MW-21, MW-22, P-54, P-55, P-56, P-57, P-58, P-59, P-60, P-61, P-66, P-68, P-69, P-70, P-73, P-74, P-75, P-93A, P-93B, P-93C, P-93D, P-114, ROST-3-MW, ROST-4-PZ, ROST-4-PZ-(A), ROST-4-PZ-(B), ROST-4-PZ-(C), ROST-4-PZ-(D), ROST-4-PZ-(E), ROST-4-PZ-(F), ROST-4-PZ-(G), MW-1, MW-2, MW-3, MW-4, MW-5, MW-6A, MW-6B, MW-6C, MW-6D, MW-7, MW-8, MW-13, MW-14, T-6, T-12, T-24, A-27, A-28, A-33

SCALE 0 200 FEET

N

SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 21562850

URS

DRN. BY: djd April 2013
DSGN. BY: lr
CHKD. BY: kh

1Q13
Groundwater Monitoring Well
Analytical Exceedances

FIG. NO. 5

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIGURE 6 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: MAR. 28, 13 @ 11:38 a.m. by: david_deguire

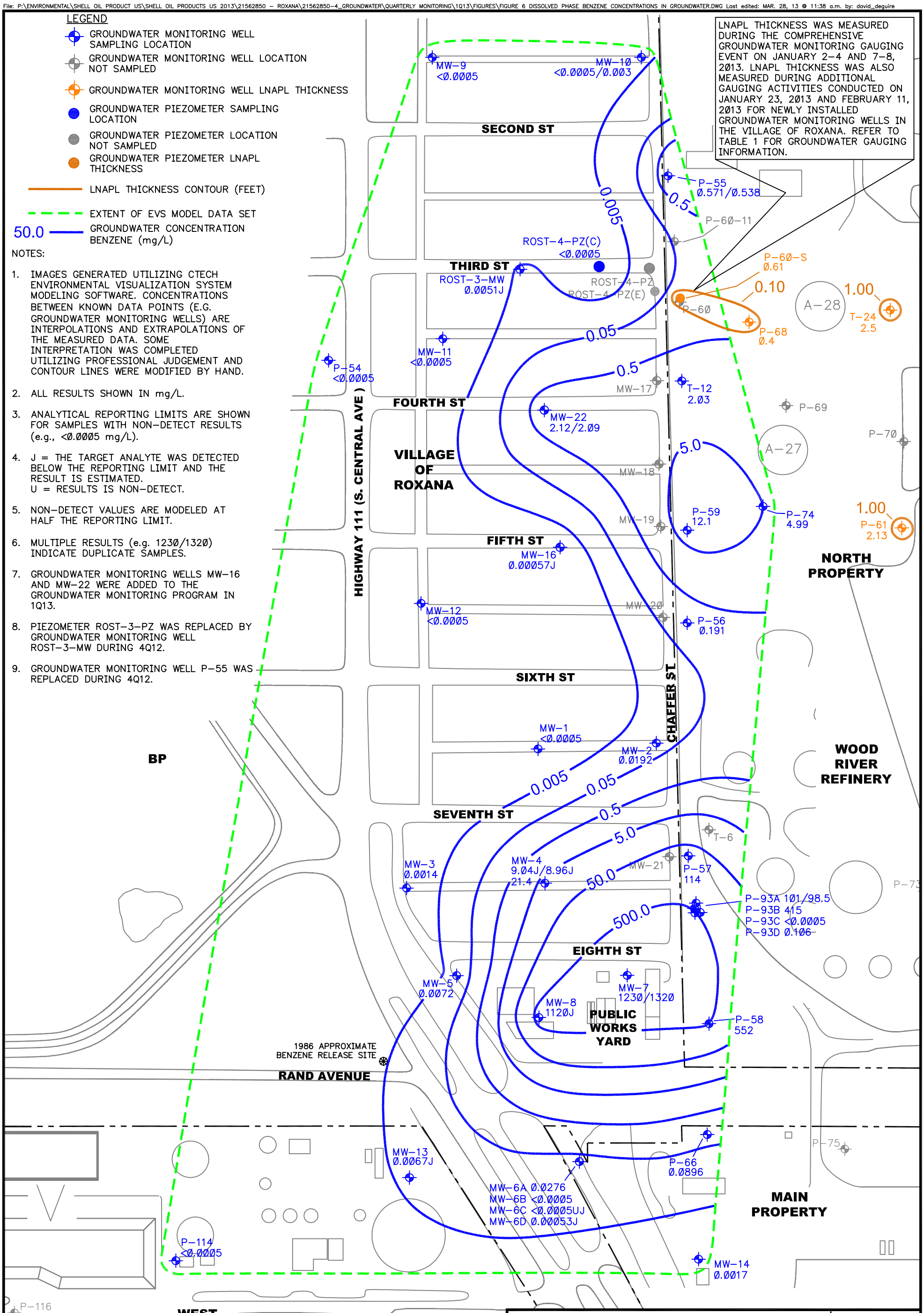
LEGEND

- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- GROUNDWATER MONITORING WELL LNAPL THICKNESS
- GROUNDWATER PIEZOMETER SAMPLING LOCATION
- GROUNDWATER PIEZOMETER LOCATION NOT SAMPLED
- GROUNDWATER PIEZOMETER LNAPL THICKNESS
- LNAPL THICKNESS CONTOUR (FEET)
- EXTENT OF EVS MODEL DATA SET
- 50.0 GROUNDWATER CONCENTRATION BENZENE (mg/L)

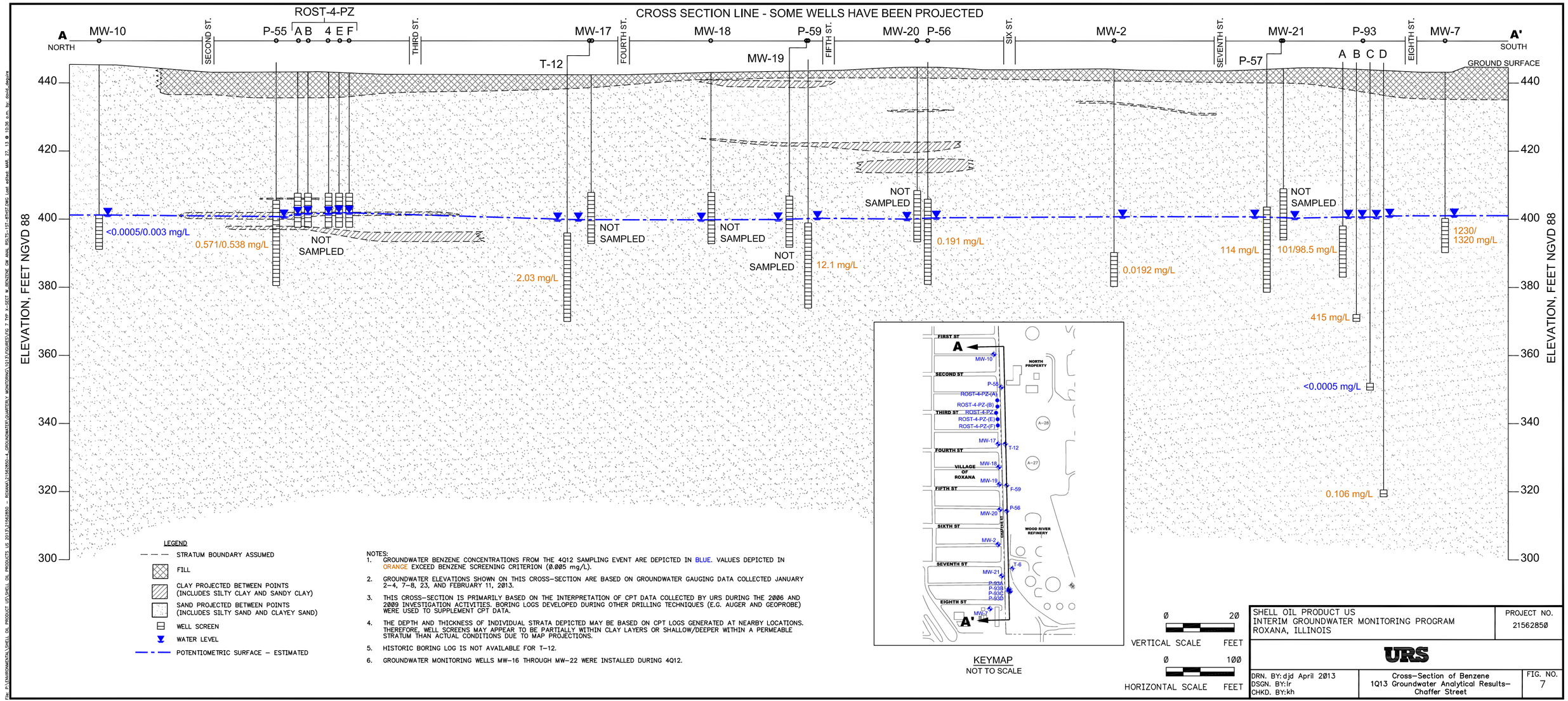
LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON JANUARY 2–4 AND 7–8, 2013. LNAPL THICKNESS WAS ALSO MEASURED DURING ADDITIONAL GAUGING ACTIVITIES CONDUCTED ON JANUARY 23, 2013 AND FEBRUARY 11, 2013 FOR NEWLY INSTALLED GROUNDWATER MONITORING WELLS IN THE VILLAGE OF ROXANA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.

NOTES:

1. IMAGES GENERATED UTILIZING CTECH ENVIRONMENTAL VISUALIZATION SYSTEM MODELING SOFTWARE. CONCENTRATIONS BETWEEN KNOWN DATA POINTS (E.G. GROUNDWATER MONITORING WELLS) ARE INTERPOLATIONS AND EXTRAPOLATIONS OF THE MEASURED DATA. SOME INTERPRETATION WAS COMPLETED UTILIZING PROFESSIONAL JUDGEMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ALL RESULTS SHOWN IN mg/L.
3. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g., <0.0005 mg/L).
4. J = THE TARGET ANALYTE WAS DETECTED BELOW THE REPORTING LIMIT AND THE RESULT IS ESTIMATED.
   U = RESULTS IS NON-DETECT.
5. NON-DETECT VALUES ARE MODELED AT HALF THE REPORTING LIMIT.
6. MULTIPLE RESULTS (e.g. 1230/1320) INDICATE DUPLICATE SAMPLES.
7. GROUNDWATER MONITORING WELLS MW-16 AND MW-22 WERE ADDED TO THE GROUNDWATER MONITORING PROGRAM IN 1Q13.
8. PIEZOMETER ROST-3-PZ WAS REPLACED BY GROUNDWATER MONITORING WELL ROST-3-MW DURING 4Q12.
9. GROUNDWATER MONITORING WELL P-55 WAS REPLACED DURING 4Q12.



SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 21562850
URS	
DRN. BY: djd April 2013 DSGN. BY:nm/lr CHKD. BY:kh	1Q13 Dissolved Phase Benzene Concentrations in Groundwater FIG. NO. 6



KEYMAP
NOT TO SCALE

LEGEND

- STRATUM BOUNDARY ASSUMED
- FILL
- CLAY PROJECTED BETWEEN POINTS (INCLUDES SILTY CLAY AND SANDY CLAY)
- SAND PROJECTED BETWEEN POINTS (INCLUDES SILTY SAND AND CLAYEY SAND)
- WELL SCREEN
- WATER LEVEL
- POTENTIOMETRIC SURFACE – ESTIMATED

NOTES:

1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 4Q12 SAMPLING EVENT ARE DEPICTED IN BLUE. VALUES DEPICTED IN ORANGE EXCEED BENZENE SCREENING CRITERION (0.005 mg/L).
2. GROUNDWATER ELEVATIONS SHOWN ON THIS CROSS-SECTION ARE BASED ON GROUNDWATER GAUGING DATA COLLECTED JANUARY 2-4, 7-8, 23, AND FEBRUARY 11, 2013.
3. THIS CROSS-SECTION IS PRIMARILY BASED ON THE INTERPRETATION OF CPT DATA COLLECTED BY URS DURING THE 2006 AND 2009 INVESTIGATION ACTIVITIES. BORING LOGS DEVELOPED DURING OTHER DRILLING TECHNIQUES (E.G. AUGER AND GEOPROBE) WERE USED TO SUPPLEMENT CPT DATA.
4. THE DEPTH AND THICKNESS OF INDIVIDUAL STRATA DEPICTED MAY BE BASED ON CPT LOGS GENERATED AT NEARBY LOCATIONS. THEREFORE, WELL SCREENS MAY APPEAR TO BE PARTIALLY WITHIN CLAY LAYERS OR SHALLOW/DEEPER WITHIN A PERMEABLE STRATUM THAN ACTUAL CONDITIONS DUE TO MAP PROJECTIONS.
5. HISTORIC BORING LOG IS NOT AVAILABLE FOR T-12.
6. GROUNDWATER MONITORING WELLS MW-16 THROUGH MW-22 WERE INSTALLED DURING 4Q12.

Ø 2Ø
VERTICAL SCALE FEET

Ø 1ØØ
HORIZONTAL SCALE FEET

SHELL OIL PRODUCT US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY: djd April 2013 DSGN. BY: lr CHKD. BY: kh	Cross-Section of Benzene 1Q13 Groundwater Analytical Results– Chaffer Street	FIG. NO. 7

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 - ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIG 7 TYP X-SECT W_BENZENE CW ANAL PDS75-1ST-8THST.DWG Last edited: MAR 27, 13 @ 10:36 a.m. by: dovis_dsquire

CROSS SECTION LINE - SOME WELLS HAVE BEEN PROJECTED

WEST
B

EAST
B'

MW-6D
MW-6C
MW-6B
MW-6A
SVE-27
MW-7
P-93A
P-93B
P-93C
P-93D
T-6

(S. CENTARL AVE)
HIGHWAY 111

EIGHTH ST

SEVENTH ST

GROUND SURFACE

ELEVATION, FEET NGVD 88

440
420
400
380
360
340
320
300

0.0276 mg/L

1230/1320 mg/L
101/98.5 mg/L

NOT SAMPLED

<0.0005 mg/L

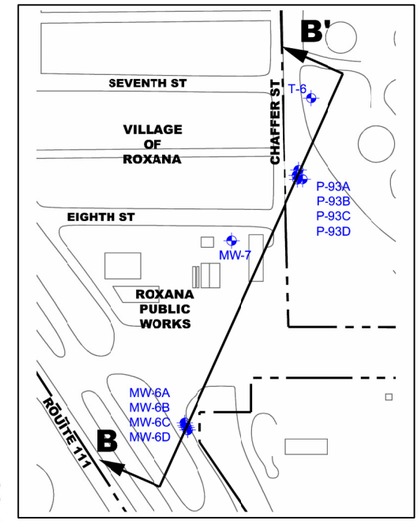
415 mg/L

<0.0005 UJ mg/L

<0.0005 mg/L

0.00053 J mg/L

0.106 mg/L



KEYMAP
NOT TO SCALE

LEGEND

- STRATUM BOUNDARY ASSUMED
- FILL
- CLAY PROJECTED BETWEEN POINTS (INCLUDES SILTY CLAY AND SANDY CLAY)
- SAND PROJECTED BETWEEN POINTS (INCLUDES SILTY SAND AND CLAYEY SAND)
- SILT
- SHALE
- WELL SCREEN
- WATER LEVEL
- POTENTIOMETRIC SURFACE – ESTIMATED

Ø 2Ø
VERTICAL SCALE FEET

Ø 1ØØ
HORIZONTAL SCALE FEET

NOTES:
1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 4Q12 SAMPLING EVENT ARE DEPICTED IN BLUE. VALUES DEPICTED IN ORANGE EXCEED BENZENE SCREENING CRITERION (Ø.ØØ5 mg/L).
2. GROUNDWATER ELEVATIONS SHOWN ON THIS CROSS-SECTION ARE BASED ON GROUNDWATER GAUGING DATA COLLECTED JANUARY 2-4, 7-8, 23, AND FEBRUARY 11, 2Ø13.
3. THIS CROSS-SECTION IS PRIMARILY BASED ON THE INTERPRETATION OF CPT DATA COLLECTED BY URS DURING THE 2ØØ6 AND 2ØØ9 INVESTIGATION ACTIVITIES. BORING LOGS DEVELOPED DURING OTHER DRILLING TECHNIQUES (E.G. AUGER AND GEOPROBE) WERE USED TO SUPPLEMENT CPT DATA.
4. THE DEPTH AND THICKNESS OF INDIVIDUAL STRATA DEPICTED MAY BE BASED ON CPT LOGS GENERATED AT NEARBY LOCATIONS. THEREFORE, WELL SCREENS MAY APPEAR TO BE PARTIALLY WITHIN CLAY LAYERS OR SHALLOW/DEEPER WITHIN A PERMEABLE STRATUM THAN ACTUAL CONDITIONS DUE TO MAP PROJECTIONS.
5. LITHOLOGICAL INFORMATION FROM SVE-27 WAS OBTAINED FROM BORING LOG TO SUPPLEMENT SITE GEOLOGY ONLY.
6. HISTORIC BORING LOG IS NOT AVAILABLE FOR T-6.

SHELL OIL PRODUCT US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 21562850
URS	
DRN. BY: djd April 2Ø13 DSGN. BY: lr CHKD. BY: tja	Cross-Section of Benzene 1Q13 Groundwater Analytical Results- Roxana Public Works Yard
	FIG. NO. 8

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 - ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\1Q13\FIGURES\FIG 8 TYP X-SECT W_BENZENE GW ANAL RSLTS-HWY111-CHAFFER.DWG Last edited: MAR. 14, 13 @ 3:08 p.m. by: david_deguire

.19 tabbing

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: S. Jansen, L. Rathnow

DATE: 1/10/13 | WEATHER: 45° overcast, light rain, winds 5-15mph

MONITORING WELL ID: MW-1 | SAMPLE ID: MW1-ROX-011013, MW1-ROX-011013-EB

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 60.31 ft
Depth to Water (btoc): 41.89 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 49.98 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 19.42 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 44.98 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ____ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ____ ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.1 ppm
Wellbore PID/FID Reading: NM ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1333	41.89	cloudy	none	6.72	62.98	3114	182.2	0.24	-0.03
400	1336	"			6.72	63.66	2158	142.5	0.16	-0.04
1600	1338	"			6.72	64.13	2154	85.62	0.14	-0.04
2800	1341	41.91			6.72	64.33	2165	52.94	0.16	-0.04
4000	1344	"	less cloudy		6.72	64.52	2174	33.35	0.14	-0.04
4800	1346	"	"		6.72	64.67	2181	26.23	0.12	-0.04
6000	1349	"	clear		6.72	64.73	2184	21.54	0.11	-0.04
7200	1352	"	"		6.72	64.73	2184	26.18	0.09	-0.04
8000	1354	"	"		6.72	64.70	2189	51.01	0.08	-0.04
9800	1356	"	"		6.72	64.70	2190	44.44	0.07	-0.04
10000	1359	"	"		6.72	64.74	2192	45.46	0.08	-0.04
10800	1401	"	"		6.72	64.80	2193	46.14	0.07	-0.04
11600	1403	"	"		6.72	64.80	2194	45.49	0.08	-0.04
12400	1405	"	"		6.72	64.82	2195	43.84	0.08	-0.04
	1407	LOST FLOW - CONTROL BOX STOPPED WORKING								
13200	1415	"	"	none	6.76	63.68	2165	37.40	~~0.00~~ 1.47	-0.00

Start Time: 1332 | Elapsed Time (min): 52 | Water Quality Meter ID: TROLL 9500

Stop Time: 1425 | Average Purge Rate (mL/min): 400 | Date Calibrated: 1/10/13

SAMPLING DATA

Sample Date: 1/10/13 | Sample Time: 1430 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 400 | QA/QCSamples: EB

VOA Vials, No Headspace ☒ Initials: SEQ/LR

COMMENTS:

purged ~350mL prior to sampling

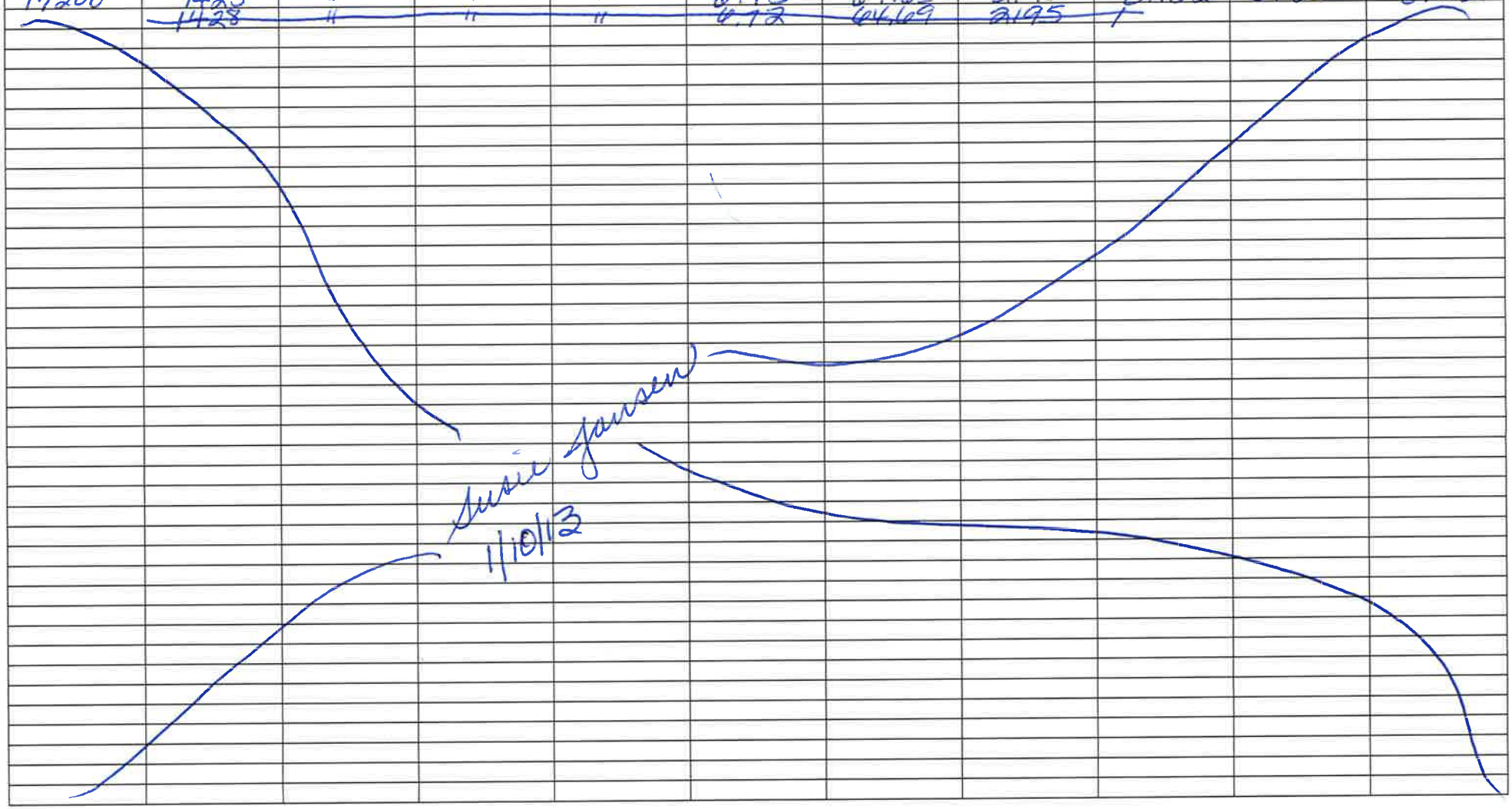
Total Purge Volume: 17200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13GW **PROJECT NUMBER:** 215628S0.03001 **FIELD PERSONNEL:** S. Jansen, K. Rathbrow

DATE: 1/10/13 **MONITORING WELL ID:** MW1-ROX-011013, MW1-ROX-01013-EB

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
14000	1417	41.90	clear	none	6.74	64.05	2176	19.85	1.22	-0.01
14800	1419	"	"	"	6.73	64.16	2177	15.00	0.79	-0.01
15600	1421	"	"	"	6.73	64.47	2189	9.612	0.36	-0.01
16400	1423	"	"	"	6.73	64.68	21892	8.674	0.21	-0.02
17200	1425	"	"	"	6.73	64.65	2192	8.162	0.20	-0.02
	1428	"	"	"	6.72	64.69	2195			



LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: S. Jansen, B. Lehan

DATE: 1-11-13 | WEATHER: 57° partly sunny

MONITORING WELL ID: MW-2 | SAMPLE ID: MW2-ROX-011113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 62.19 ft
Depth to Water (btoc): 42.94 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 51.32 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 19.25 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 56.32 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ___ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ___ ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.2 ppm
Wellbore PID/FID Reading: NA ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	~~Temp (°C)~~ °F	Cond. (mS/cm)	~~Turbidity (NTUs)~~ FNU	DO (mg/L)	ORP (mV)	Temp °C
0	0942	42.95	clear	none	6.67	65.14	20.27	26.50	0.13	-0.11	
800	0944	42.95	clear	none	6.67	65.26	20.28	19.67	0.13	-0.11	
1600	0946	42.95	"	"	6.67	65.28	20.27	14.05	0.09	-0.11	
4000	0952	42.95	"	"	6.67	65.32	20.30	13.04	~~0.10~~ 0.07	-0.11	18.51
5200	0955	42.95	"	"	6.67	65.39	20.32	12.66	0.07	-0.11	18.55
6000	0957	42.95	"	"	6.67	65.36	20.27	12.39	0.05	-0.11	18.53

Start Time: 0942 | Elapsed Time (min): 15 | Water Quality Meter ID: TROLL 9500

Stop Time: 0957 | Average Purge Rate (mL/min): 400 | Date Calibrated: 1-11-13

SAMPLING DATA

Sample Date: 1-11-13 | Sample Time: 1101 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / (Low Flow) | Sample Flow Rate (mL/min): 400 | QA/QCSamples: NA

VOA Vials, No Headspace ☒ Initials: ___

COMMENTS:

Purged ~ 500 mL before ~~pu~~ stabilization readings taken.

Total Purge Volume: 6000 mL

LOW FLOW GROUNDW. .K SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW Sampling PROJECT NUMBER: 215G2850.0800 FIELD PERSONNEL: C. Kretzer / D. Mattingly

DATE: 1-8-13 WEATHER: 50°F, Sunny

MONITORING WELL ID: MW-3 SAMPLE ID: ~~ROX-MW3-010813~~ MW3-ROX-010813 CK

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.98 ft
Depth to Water (btoc): 29.35 ft
Depth to LNAPL/DNAPL (btoc): NG ft
Depth to Top of Screen (btoc): 34.67 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 16.63 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 40.98 (39.67) ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: NM ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1118	29.35	Clear	—	6.82	14.08	1276	38.89	0.08	-196
810	1121	29.35	Clear	—	6.83	14.35	1291	24.57	0.06	-218
1620	1124	29.35	Clear	—	6.85	19.39	1302	16.03	0.04	-233
2430	1127	29.40	Clear	—	6.86	19.30	1310	13.72	0.03	-237
3240	1130	29.40	Clear	—	6.87	19.22	1316	11.81	0.03	-239
4050	1133	29.40	Clear	—	6.87	19.16	1320	10.93	0.04	-237
4860	1136	29.40	Clear	—	6.87	19.27	1319	13.68	0.03	-236
5670	1139	29.40	Clear	—	6.87	19.38	1322	10.57	0.03	-239
6480	1142	29.40	Clear	—	6.88	19.25	1328	20.09	0.02	-241
7290	1145	29.40	Clear	—	6.88	19.18	1329	20.86	0.02	-242
8100	1148	29.40	Clear	—	6.89	19.13	1330	20.25	0.03	-242
8910	1151	29.40	Clear	—	6.90	19.32	1327	13.93	0.02	-245
9720	1154	29.40	Clear	—	6.88	19.30	1327	25.36	0.01	-241
10530	1157	29.40	Clear	—	6.88	19.32	1329	12.28	0.01	-246
11340	1200	29.40	Clear	—	6.88	19.24	1332	16.67	0.01	-245
12150	1203				6.88	19.17	1333	2.6666	0.01	-243

Start Time: 1118
Stop Time: 1203
Elapsed Time (min): 45 min
Average Purge Rate (mL/min): 300 mL/min
Water Quality Meter ID: Troll
Date Calibrated: 1/9/13

SAMPLING DATA

Sample Date: 1/9/13
Sample Time: 1205
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 300 mL/min
QA/QCSamples: EB
VOA Vials, No Headspace ☒ Initials: DM

COMMENTS: Purged ~ 500 mL prior to sampling & ~ 450 mL during sampling

Total Purge Volume: 12150 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: S. Jansen & B. Lehan

DATE: 1-11-13 | WEATHER: 59°F, partly cloudy

MONITORING WELL ID: MW-4 | SAMPLE ID: MW4-ROX-011113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 56.39 ft
Depth to Water (btoc): 40.20 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 46.06 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 16.19 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 51.06 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ____ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ____ ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.5 ppm
Wellbore PID/FID Reading: ____ ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp ~~(°C)~~ °F	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	Temp °C
0	1100	40.20	turbid	none	6.82	64.43	25,910	489.1	0.82	-103	
400	1105	40.20	turbid	none	6.82	64.93	25,880	261.6	0.42	-109	
2400	1108	40.20	turbid	none	6.82	65.07	25,360	278.3	0.38	-111	
3200	1110	40.20	turbid	none	6.82	65.25	25,310	249.9	0.38	-112	
4000	1112	40.20	turbid	none	6.83	65.35	25,270	224.0	0.32	-113	
4800	1114	40.20	turbid	none	6.83	65.44	25,240	392.4	0.29	-113	
5600	1116	40.20	slightly turbid	none	6.83	65.52	25,220	726.6	0.26	-114	
6400	1118	40.20	slightly turbid	none	6.83	65.56	25,240	45.03	0.29	-113	
7200	1120	40.20	"	"	6.83	65.56	25,210	29.42	0.27	-113	
8000	1122	40.20	"	"	6.83	65.54	25,210	25.13	0.25	-113	18.63
8800	1124	40.20	"	"	6.83	65.66	25,190	25.74	0.23	-113	18.70
9700	1126	40.20	"	"	6.83	65.75	25,160	25.45	0.21	-113	18.75

Start Time: 1100 | Elapsed Time (min): 26 | Water Quality Meter ID: TROLL 9500

Stop Time: 1126 | Average Purge Rate (mL/min): 400 | Date Calibrated: 1-11-13

SAMPLING DATA

Sample Date: 1-11-13 | Sample Time: 1235 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 400 | QA/QCSamples: duplicate

VOA Vials, No Headspace ☒ Initials: ____

COMMENTS: Purged ~ 400 mL before starting readings.

Total Purge Volume: 9700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: B. Lehan + S. Jansen

DATE: 1-11-13 WEATHER: 60°F, mostly sunny

MONITORING WELL ID: MW-5 SAMPLE ID: MW5-ROX-011113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 46.13 ft
Depth to Water (btoc): 28.75 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 33.97 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 17.38 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 38.97 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1424	28.75	Clear	none	6.84	19.07	19.18	47.41	0.11	-123
800	1426	28.75	Clear	none	6.83	19.19	19.26	20.67	0.07	-128
3600	1433	28.75	Clear	none	6.83	19.21	19.25	11.96	0.05	-124
4800	1435	28.75	"	"	6.83	19.21	19.25	11.47	0.04	-123
5600	1437	28.75	"	"	6.83	19.18	19.25	11.85	0.04	-124

Cond 19.25

Start Time: 1424 Elapsed Time (min): 13 Water Quality Meter ID: TROLL 9500

Stop Time: 1437 Average Purge Rate (mL/min): 400 Date Calibrated: 1-11-13

SAMPLING DATA

Sample Date: 1-11-13 Sample Time: 1445 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 5600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: B. Lehan / Betty H.

DATE: 01/14/13 WEATHER: 19°F Sunny

MONITORING WELL ID: MW-6A SAMPLE ID: MW6A - ROX - 011413

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 46.98 ft
Depth to Water (btoc): 31.0 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 34.83 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 15.98 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is < 4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 39.83 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

	Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C) 91	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
	0	14 39	31	turbid tanned	None	7.0	19.31	0.6812	19.31		
1.	800ml	14:41	"	"	"	7.0	20.25	0.6799	18.96	0.48	
2.	1600	14:43	"	"	"	7.0	20.28	0.6793	18.04	0.40	-130
3.	2400	14:45	"	"	"	7.0	19.6	0.6803	18.01	0.36	-130
4.	3200	14:47	"	"	"	6.99	20.14	0.6844	17.55	0.31	-130
5.	4000	14:49	"	"	"	7.00	20.31	0.6829	19.34	0.21	-131
6.	4800	14:51	"	"	"	7.00	19.63	0.6857	20.91	0.17	-131
7.	5600	14:53	"	"	"	7.00	20.16	0.6861	19.12	0.15	-131
	6400	14:55	"	"	"	7.00	20.29	0.6853	21.04	0.07	-132
	7200	14:57	"	"	"	7.00	20.21	0.6902	20.50	0.02	-132

Start Time: 14:39 Elapsed Time (min): 18 Water Quality Meter ID: TROLL 9500

Stop Time: 14:57 Average Purge Rate (mL/min): ~~400~~ ml/min Date Calibrated: 01/14/13

SAMPLING DATA

Sample Date: 01/14/13 Sample Time: 15:05 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400ml/min QA/QCSamples: None.

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 7200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: B. Haikmaviam / L. Rathnoa

DATE: 01/17/13 WEATHER: Sunny, 30s °F

MONITORING WELL ID: MW-6B SAMPLE ID: MW-6B-ROX-011713

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): ~~69.38~~ 69.05 ft
Depth to Water (btoc): 31.11 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): ~~64.05~~ 64.05 ft
Screen Length): 5 ft

Water Column Height (do not include LNAPL or DNAPL): 37.94 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 66.55 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	10:46	31.11	Clear	None	6.80	18.36	1.129	28.64	0.62	-88
900	10:49	"	"	"	6.81	18.76	1.142	14.02	0.47	-85
1800	10:52	"	"	"	6.81	19.0	1.154	13.70	0.23	-84
2700	10:56	"	"	"	6.81	18.91	1.157	17.46	0.13	-83
3600	10:59	"	"	"	6.82	18.41	1.145	24.51	0.12	-82
4500	11:02	"	"	"	6.81	18.06	1.131	27.62	0.03	-81
5400	11:05	"	"	"	6.82	18.74	1.141	66.03	-0.03	-81
6300	11:08	"	"	"	6.82	18.60	1.138	5.336	-0.00	-81
7200	11:12	"	"	"	6.82	19.01	1.147	-0.1279	-0.00	-80
8100	11:16	"	"	"	6.82	18.36	1.139	0.0865	0.00	-79
9000	11:19	"	"	"	6.82	18.11	1.127	1.677	-0.01	-79
10500	11:24	"	"	"	6.82	18.11	1.127	7.343	-0.02	-79

Start Time: 10:46 Elapsed Time (min): 38 Water Quality Meter ID: TROLL 9500

Stop Time: 11:24 Average Purge Rate (mL/min): 300 Date Calibrated: 01/17/13

SAMPLING DATA

Sample Date: 01/17/13 Sample Time: 11:25 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: EB

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 10500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

L. Rathnow

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: ~~B. Lehan~~ / B. Hallemariam

DATE: ~~01/17~~/13 01/17/13 WEATHER: ~~19°F~~, Sunny, 30s °F

MONITORING WELL ID: MW-6C SAMPLE ID: MW-6C

INITIAL DATA

Well Diameter): 2 in 89.96
Total Well Depth (btoc): ~~90.28~~ ft
Depth to Water (btoc): 31.00.30 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 84.95 ft
Screen Length): 5 ft

Water Column Height (do not include LNAPL or DNAPL): 59.08 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~86~~ 87.45 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1:19	30.88	Clean	None	6.99	17.14	0.7853	85.62	0.37	-93
9~~2~~00	1:22	"	"	"	6.95	17.47	0.8129	56.79	0.13	-97
1~~8~~00	1:2~~4~~5	"	"	"	6.94	17.62	0.8233	24.40	0.07	-100
2700	1:2~~8~~	"	"	"	6.94	17.66	0.8276	11.27	0.02	-101
3600	1:31	"	"	"	6.94	17.60	0.8275	6.481	0.01	-103

Start Time: 1:19 Elapsed Time (min): 16 Water Quality Meter ID: TROLL 9500

Stop Time: 1:35 Average Purge Rate (mL/min): 400 Date Calibrated: 01/17/13

SAMPLING DATA

Sample Date: ~~1:35~~ 01/17/13 Sample Time: 13:35 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: YAR

COMMENTS:

Total Purge Volume: 3600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathnow / B. Haltemar (am

DATE: 01/17/13 WEATHER: ~~54~~ Sunny, 30s °F

MONITORING WELL ID: MW-6D SAMPLE ID: MW-6D-ROX-011713

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 110.05 ft
Depth to Water (btoc): 30.75 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 104.72 ft
Screen Length): 5 ft

Water Column Height (do not include LNAPL or DNAPL): 79.30 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 107.22 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	14:12	30.75	Clear	Strong	7.10	17.11	0.9240	240.1	0.36	-105
1200	14:15	"	"	"	7.08	17.20	0.9329	141.3	0.18	-110
3600	14:18	"	"	"	7.08	17.09	0.9297	91.83	0.08	-112
4800	14:21	"	"	"	7.08	17.04	0.9280	47.86	0.06	-113
6000	14:24	"	"		7.07	17.04	0.9271	34.24	0.04	-114
72,000	14:27	"	"	"	7.07	17.09	0.9293	15.24	0.01	-115
84,000	14:30	"	"	"	7.07	17.18	0.9296	10.35	-0.00	-116
96,000	14:33	"	"	"	7.07	~~6.66~~ 17.15	~~6.693~~ 0.9292	6.693	-0.01	-116

Start Time: 14:12 Elapsed Time (min): 12 Water Quality Meter ID: TROLL 9500

Stop Time: 14:34 Average Purge Rate (mL/min): 400 Date Calibrated: 01/17/13

SAMPLING DATA

Sample Date: 01/17/13 Sample Time: 14:35 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: None

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 96,000 mL

LOW FLOW GROUNDW. ‹ SAMPLING DATA SHEET

PROJECT NAME: Roxana GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathnol & B. Hailemariam

DATE: 01/15/13 WEATHER: Cold ~ 20° F

MONITORING WELL ID: MW7 SAMPLE ID: MW7-ROX-011513

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.88 ft
Depth to Water (btoc): 42.21 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 42.92 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 10.67 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ‹4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 47.92 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ‹ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: MONSOON

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
	11:23		clear	Strong	6.85	17.76	0.1182	22.05	0.18	-82
	11:28				6.87	17.46	0.1121	15.53	0.18	
	11:33				6.86	19.56	0.1194	12.47	0.06	-88
	11:38				6.88	19.78	0.1201	7.379	-0.03	-89

Start Time: — Elapsed Time (min): — Water Quality Meter ID: —

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: —

SAMPLING DATA

Sample Date: 01/15/13 Sample Time: — Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): — QA/QC Samples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS: Lost flow due to pump problems. See separate MW-7 sheet.

Total Purge Volume: — mL

LOW FLOW GROUNDW. ‹ SAMPLING DATA SHEET

PROJECT NAME: Roxana GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathmel & B. Haikenaram

DATE: 01/15/13 WEATHER: Cloudy, 20°F

MONITORING WELL ID: MW7 SAMPLE ID: MW7 - ROX - 011513

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.38 ft
Depth to Water (btoc): 42.21 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 42.92 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 10.67 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ‹4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 47.92 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ‹ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: SS. Monsoon

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
~~0~~	1:55		Clean	Strong	6.89	16.98	1.014	102.2	0.10	-77
900	1:58		〃	〃	6.88	17.34	1.025	90.91	0.05	-79
1800	~~2:01~~ 2:01		〃	〃	6.88	17.76	1.040	73.12	0.02	-82
2700	~~2:04~~ 2:04		〃	〃	6.89	17.90	1.048	59.83	0.00	-85
3600	~~2:07~~ 2:07		〃	〃	6.90	~~1.042~~	1.012	41.46	-0.01	-87
4500	~~2:10~~ 2:10		〃	〃	~~6.96~~	17.95	1.057	29.94	-0.03	-89
~~5400~~						18.20				
5400	~~2:13~~ 2:13		〃	〃	6.9	18.13	1.057	21.29	-0.05	-90
6300	~~2:16~~ 2:16				6.9	18.39	1.060	16.26	-0.06	-91
7200	~~2:19~~ 2:19				6.8	18.36	1.058	12.24	-0.07	-91
7600	~~2:22~~ 2:22				6.9	18.14	1.054	10.75	-0.08	-91
8000	~~2:25~~ 2:25				6.9	18.28	1.056	8.574	-0.08	-91

Start Time: ~~1:55~~ 1:55 Elapsed Time (min): 30 Water Quality Meter ID: Troll 9500

Stop Time: 2:25 Average Purge Rate (mL/min): 300 Date Calibrated: 1/15/13

SAMPLING DATA

Sample Date: 01/15/13 Sample Time: 14:30 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: Dup

VOA Vials, No Headspace ☒ Initials: YAR

COMMENTS:

Total Purge Volume: 8000 mL

LOW FLOW GROUNDW[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathnol & B. Haikemariam

DATE: 01/15/13 WEATHER: Cold, 20°F

MONITORING WELL ID: MW8 SAMPLE ID: MW8-ROX-011513

INITIAL DATA

Well Diameter: 2 in 43.45
Total Well Depth (btoc): ~~[illegible]~~ ft
Depth to Water (btoc): 33.30 ft
Depth to LNAPL/DNAPL (btoc): - ft
Depth to Top of Screen (btoc): ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 10.15 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is < 4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 38.92 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = - ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = - ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: - ppm

PURGE DATA

Pump Type: GS. Monsoon

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	3:08		clear	strong	6.64	15.36	0.8420	13.21	0.44	-51
800	3:10		"	"	6.61	16.02	0.8511	20.30	0.19	-47
1600	3:12		"		6.60	16.41	0.8527	22.40	0.11	-47
2400	3:14		"		6.59	16.54	0.8565	24.22	0.05	-48
3200	3:16		"	"	6.59	17.15	0.8641	26.46	0.02	-50
4000	3:18		"		6.58	17.05	0.8609	22.26	0.01	-51
4800	3:20		"	"	6.58	17.22	0.8622	20.81	0.00	-51
5600	3:22		"		6.58	17.53	0.8676	19.19	-0.02	-53
6400	3:24		"	"	6.58	17.68	0.8673	16.49	-0.02	-54
7200	3:26		"	"	6.58	17.53	0.8643	14.32	-0.02	-54
8000	3:28		"	"	6.58	17.62	0.8650	13.41	-0.03	-55
8800	3:31		"	"	6.58	17.82	0.8657	12.27	-0.04	-56
9600	3:34				6.58	17.83	0.8631	9.835	-0.04	-56

Start Time: 3:08 Elapsed Time (min): 26 Water Quality Meter ID:

Stop Time: 3:34 Average Purge Rate (mL/min): 300 Date Calibrated: 01/15/13

SAMPLING DATA

Sample Date: 01/15/13 Sample Time: ~~3:35~~ LR 15.40 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: LR

COMMENTS:

Total Purge Volume: 9600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: C. Kretzer / D. Mattingly

DATE: 1-11-13 WEATHER: ~60°F, Partly Cloudy

MONITORING WELL ID: MW-9 SAMPLE ID: MW9-ROX-011113

INITIAL DATA

Well Diameter): 2 in 55.81
Total Well Depth (btoc): ~~56.78~~ ft
Depth to Water (btoc): 43.90 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 46.45 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 11.91 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 50.81 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

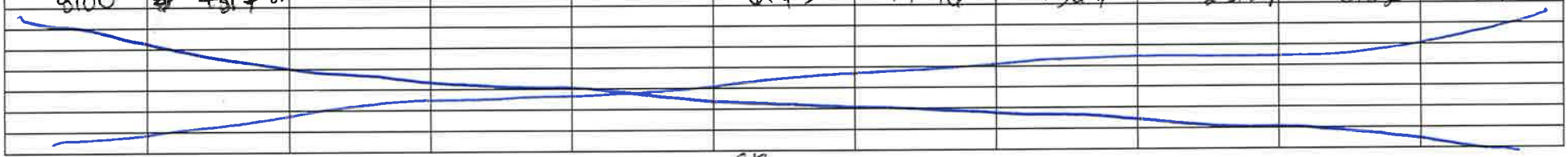
Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: ppm
Wellbore PID/FID Reading: ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1453	43.90	turbid	none	6.74	16.57	1371	124.6	1.07	-76
900	1456				6.74	17.24	1365	80.03	0.42	-83
1800	1459				6.73	17.58	1365	50.69	0.22	-88
2700	1502	43.92			6.73	17.74	1368	34.65	0.11	-93
3600	1505				6.73	17.81	1368	32.06	0.08	-97
4500	1508				6.73	17.83	1369	29.70	0.03	-101
5400	1511				6.73	17.86	1368	26.42	0.01	-105
7300	1514				6.73	17.94	1368	24.90	-0.00	-108
8100	~~1517~~ OK				6.73	17.96	1367	25.29	-0.02	-111



Start Time: 1453
Stop Time: 1520

Elapsed Time (min): ~~15~~ CK 20
Average Purge Rate (mL/min): 300

Water Quality Meter ID: TROLL 9500
Date Calibrated: 1-11-13

SAMPLING DATA

Sample Date: 1-11-13
Sample Method: Bladder Pump / Low Flow
VOA Vials, No Headspace ☒ Initials: CMC

Sample Time: ~~1520~~ CK 1525
Sample Flow Rate (mL/min): 300

Lab Analysis: VOC, SVOC
QA/QCSamples: none

COMMENTS: Purged ~500mL prior to sampling & ~450mL during sampling

Total Purge Volume: 8100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: D. Mattingly / C. Kretzer

DATE: 1-10-13 | WEATHER: 40°F, Cloudy

MONITORING WELL ID: MW-10 | SAMPLE ID: MW10-ROX-011013

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): ~~54.70~~ 54.46 ft
Depth to Water (btoc): 45.72 ft
Depth to LNAPL/DNAPL (btoc): —— ft
Depth to Top of Screen (btoc): 44.43 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 8.74 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~50.09~~ ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ~~50.09~~ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = —— ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: NM ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1457	45.72	clear	none	6.90	17.94	1119	40.78	0.04	~~-134~~
900	1500				6.90	18.09	1104	32.39	0.02	-146
1800	1503				6.90	18.08	1095	25.35	-0.00	-151
2700	1506				6.90	18.10	1090	26.76	-0.01	-155
3600	1509				6.89	18.09	1087	31.15	-0.01	-159
4500	1512				6.89	18.20	1084	31.16	-0.02	-163
5400	1515				6.89	18.32	1082	32.26	-0.03	-166
6300	1518				6.89	18.42	1082	41.83	-0.03	-170
7200	1521				6.89	18.36	1082	9.427	-0.03	-173

DM

Start Time: 1457 | Elapsed Time (min): ~~1525~~ | Water Quality Meter ID: TROLL 9500

Stop Time: 1522 | Average Purge Rate (mL/min): 300 | Date Calibrated: 1-10-13

SAMPLING DATA

Sample Date: 1-10-13 | Sample Time: 1525 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: None

VOA Vials, No Headspace ☒ Initials: DM

COMMENTS: Purged ~ 400mL prior to sampling & ~ 450 mL during sampling

Total Purge Volume: 7200 mL

LOW FLOW GROUNDW. & SAMPLING DATA SHEET

PROJECT NAME: Roxana Groundwater PROJECT NUMBER: 91562850.0300 FIELD PERSONNEL: S. Jansen, B. Hailemariam

DATE: 1-21-13 WEATHER: 22° 20-30 mph winds

MONITORING WELL ID: MW 10 (expedited sampling) SAMPLE ID: MW 10 - [redacted] ROX - 012113

45.74 DTW ~~50.09~~

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 54.76 ft
Depth to Water (btoc): 44.10 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 44.43 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 50.0 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

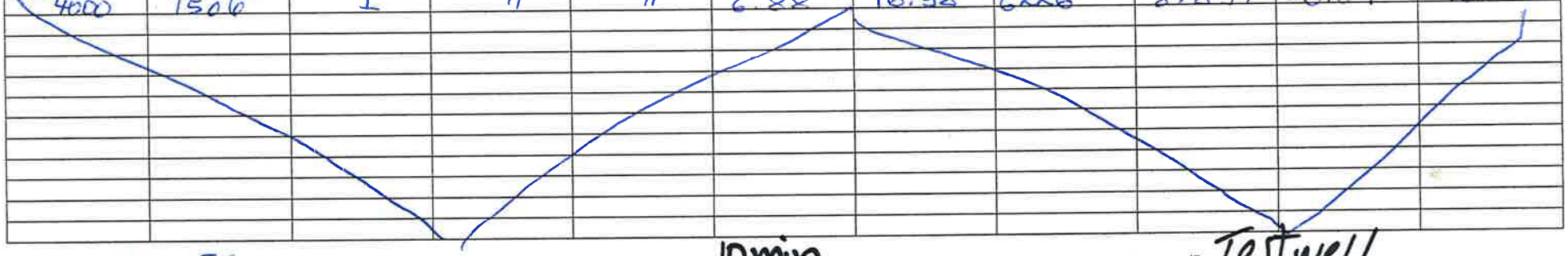
Volume of Flow Through Cell: 300 mL
Minimum Purge Volume = (3 x Flow Cell Volume): — mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	14:56	44.10	Clear	None	6.87	16.79	623.000	12.36	-0.00	-99
1600	15:00		"	"	6.87	16.94	623.000	15.28	-0.02	-100
2400	15:02		"	"	6.88	17.01	623.70	11.53	-0.04	-101
3200	15:04		"	"	6.88	17.00	622.6	10.23	-0.04	-101
4000	1506		"	"	6.88	16.98	622.6	8.894	-0.04	-101



Start Time: 14:56
Stop Time: 1506

Elapsed Time (min): 10min.
Average Purge Rate (mL/min): 400

Water Quality Meter ID: TestWell
Date Calibrated: 1/21/13

SAMPLING DATA

Sample Date: 01/21/2013
Sample Time: 1520
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400
QA/QCSamples: None
VOA Vials, No Headspace ☒ Initials: SG

COMMENTS: purged ~15 conc prior to collecting stabilized readings

Total Purge Volume: 4000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: C. Kreter / D. Mattingly

DATE: 1-10-13 | WEATHER: 40°F,

MONITORING WELL ID: MW-11 | SAMPLE ID: MW11-ROX-011013

INITIAL DATA

Well Diameter): 2 in 51.62
Total Well Depth (btoc): ~~51.99~~ ft
Depth to Water (btoc): 41.43 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 41.66 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 10.19 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 46.62 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: NM ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
~~[illegible]~~ 0	1324	41.43	Clear	none	6.76	14.86	1579	21.73	0.09	-145
900 ~~[illegible]~~ CK	1~~[illegible]~~				6.76	14.99	1584	15.17	0.04	-155
1800	1340				6.76	17.31	1587	8.597	0.02	-162
2700	1343				~~6.76~~	17.49	1589	4.808	-0.00	-167
~~3600~~	1346				6.76	17.59	1588	3.143	-0.02	-173
4500	1349				6.76	17.64	1586	1.937	-0.03	-179

DM

Start Time: 1334
Stop Time: 1349

Elapsed Time (min): ~~134~~ CK 15
Average Purge Rate (mL/min): 300

Water Quality Meter ID: TROLL 9500
Date Calibrated: 1-10-13

SAMPLING DATA

Sample Date: 1-10-13 | Sample Time: 1355 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: CAK

COMMENTS: Purged ~ 450mL prior to sampling and ~ 350 mL during sampling

Total Purge Volume: 4,500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: C. Kretzer / D. Mattingly

DATE: 1-10-13 WEATHER: 40°F, Sunny

MONITORING WELL ID: MW-12 SAMPLE ID: MW12-ROX-~~010913~~ 011013

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): ~~52.25~~ 52.21 ft
Depth to Water (btoc): 41.92 ft
Depth to LNAPL/DNAPL (btoc): NC ft
Depth to Top of Screen (btoc): 41.92 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 10.29 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: NM ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- ~~10~~ 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1035	41.83	clear	none	6.80	16.20	1023	47.56	0.24	~~28~~
1800 ~~6000~~	1041	"	↓	↓	6.79	17.24	1012	10.32	0.11	10
2700	1044	"			6.79	17.19	1007	5.599	0.07	12
3600	1047	"			6.77	17.34	1006	5.824	0.06	1

DM

Start Time: 1035 Elapsed Time (min): 14 Water Quality Meter ID: TROLL 9500

Stop Time: 1049 Average Purge Rate (mL/min): 300 Date Calibrated: 1-10-13

SAMPLING DATA

Sample Date: 1-10-13 Sample Time: 1055 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: MS / MSD

VOA Vials, No Headspace ☒ Initials: CK

COMMENTS:
Missed reading @ 1038. Purged ~400mL prior to sampling and ~450mL during sampling.

Total Purge Volume: 3600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathbun, R. Scherrer

DATE: 1/23/13 WEATHER: Sunny 15°F

MONITORING WELL ID: MW-13 SAMPLE ID: MW13-ROX-012313, MW13-ROX-012313-EB

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 35.82 ft
Depth to Water (btoc): 29.26 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 25.57 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.56 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 30.57 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	09:45	29.26	clear	none	6.62	18.29	1.012	46.96	0.08	-160
800	09:47	nm	clear	none	6.63	18.43	1.014	20.38	0.05	-169
1600	09:49	nm	clear	none	6.63	18.51	1.019	10.49	0.03	-174
2400	09:51	29.26	clear	none	6.64	18.54	1.019	5.142	0.02	-177
3200	09:53	29.26	clear	none	6.64	18.59	1.019	3.554	0.01	-178

Start Time: 09:45 Elapsed Time (min): 8 Water Quality Meter ID: TROLL 9500

Stop Time: 09:53 Average Purge Rate (mL/min): 400 Date Calibrated: 1/23/13

SAMPLING DATA

Sample Date: 1/23/13 Sample Time: 10:00 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: EB

VOA Vials, No Headspace ☒ Initials: LAR

COMMENTS:

Total Purge Volume: 3200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rothrock, T. Carroll

DATE: 1/18/13 WEATHER: Sunny, 35°F

MONITORING WELL ID: MW-14 SAMPLE ID: MW14-ROX-011813

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.00 ft
Depth to Water (btoc): 33.05 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 33.42 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 10.95 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 38.42 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	08:32	33.05	clear	none	6.64	17.29	0.7696	63.75	0.67	-84
1200	08:36	33.05	clear	none	6.65	17.40	0.7680	56.35	0.56	-90
2400	08:39	nm	clear	none	6.65	18.13	0.7783	49.81	0.42	-94
4000	08:41	nm	clear	none	6.65	18.32	0.7821	46.69	0.35	-96
4800	08:43	33.05	clear	none	6.65	18.49	0.7874	36.79	0.36	-97
5600	08:45	33.05	clear	none	6.65	18.53	0.7910	30.60	0.29	-98
6400	08:47	nm	clear	none	6.65	18.62	0.7943	25.87	0.15	-98
7200	08:49	nm	clear	none	6.65	18.78	0.7988	20.22	0.10	-99
8000	08:52	33.05	clear	none	6.65	18.81	0.8062	15.82	0.08	-99
8800	08:54	33.05	clear	none	6.65	18.79	0.8007	12.40	0.06	-99
~~9600~~ 9600	08:56	33.05	clear	none	6.65	18.87	0.8028	10.49	0.05	-100
10400	08:59	nm	clear	none	6.65	18.92	0.8040	8.182	0.06	-100

Start Time: 08:32 Elapsed Time (min): 27 Water Quality Meter ID: TROLL 9500

Stop Time: 08:59 Average Purge Rate (mL/min): 400 Date Calibrated: 1/18/13

SAMPLING DATA

Sample Date: 1/18/13 Sample Time: 09:00 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 10400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: Jansen / Kretzer

DATE: 1/23/13 WEATHER: 33° Sunny

MONITORING WELL ID: MW-16 SAMPLE ID: MW16-ROX-012313

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 47.64 ft
Depth to Water (btoc): 43.05 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 37.64 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 4.63 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥ 4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~45.37~~ < ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = 45.37 ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1204	43.05	clear	none	12.38	18.08	0.8323	92.93	0.18	-81
900	1207	↓			12.18	18.47	0.8409	58.17	0.05	~~-87~~
1800	1210	↓			11.86	18.73	0.8463	42.71	0.01	-89
2700	1213	43.10			11.64	18.79	0.8435	22.77	-0.01	-92
3600	1216	↓			11.56	18.93	0.8443	12.09	-0.03	~~-94~~
4500	1219	↓			11.46	18.98	0.8482	7.557	-0.04	-96
5400	1223	43.10			11.35	19.01	0.8446	7.300	-0.05	-97
6300	1226	↓	↓	↓	11.24	19.17	0.8507	7.025	-0.05	-98
				AK						

Start Time: 1204 Elapsed Time (min): ~~0300~~ 22 Water Quality Meter ID: TROLL 9500

Stop Time: 1226 Average Purge Rate (mL/min): 300 Date Calibrated: 01/23/2013

SAMPLING DATA

Sample Date: 01/23/2013 Sample Time: 1235 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: None

VOA Vials, No Headspace ☒ Initials: SSG

COMMENTS:
Approximately 200-300 mL purged prior to ~~start~~ time.

Total Purge Volume: 6300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: Jansen/Kutzer -ROX / -ROX

DATE: 1/23/13 | WEATHER: 35° sunny

MONITORING WELL ID: MW-22 | SAMPLE ID: MW22-012313 / MW22-012313DUP

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 48.5 ft
Depth to Water (btoc): 41.80 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 38.54 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.74 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 43.54 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0-2.0 ppm
Wellbore PID/FID Reading: ~~0-2.0 SG~~ 456 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1439	41.80	cloudy	strong	11.32	16.97	1.072	55.94	0.02	-108
900	1442	"	"	"	11.27	17.19	1.082	38.09	-0.01	-110
1800	1443	41.82	clear	"	11.24	16.96	1.069	26.53	-0.02	-110
2700	1445	"	"	"	11.29	16.06	1.050	21.50	-0.02	-110
3000	1447	"	"	"	11.19	17.69	1.105	19.43	-0.05	-111
3900	1450	"	"	"	11.17	17.36	1.103	14.82	-0.06	-111
4800	1453	"	"	"	11.14	17.87	1.102	11.90	-0.06	-111
5700	1456	"	"	"	11.15	17.81	1.100	10.60	-0.07	-111
6600	1459	"	"	"	11.15	17.69	1.096	9.203	-0.07	-111

Start Time: 1439 | Elapsed Time (min): 20 | Water Quality Meter ID: TROLL 9500

Stop Time: 1459 | Average Purge Rate (mL/min): 300 | Date Calibrated: 1/23/13

SAMPLING DATA

Sample Date: 1/23/13 | Sample Time: 1515 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / (Low Flow) | Sample Flow Rate (mL/min): 300 | QA/QCSamples: DUPLICATE

VOA Vials, No Headspace ☒ Initials: SSG

COMMENTS: purged ~ 500 mL prior to stabilized readings

Total Purge Volume: 6600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: C. Kreter / D. Mathngly

DATE: 1-11-13 WEATHER: 50°F, Partly Cloudy

MONITORING WELL ID: P-54 SAMPLE ID: P54-ROX-01 11 13

INITIAL DATA

Well Diameter: 2 in 62.4e
Total Well Depth (btoc): ~~63.00~~ ft
Depth to Water (btoc): 41.56 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 38.00 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 21.10 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 50.16 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: ~~CK PAK~~ 0.0 ppm
Wellbore PID/FID Reading: NM ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	0958	41.56	clear	none	6.74	16.62	1034	30.44	0.04	55
900	1001				6.74	16.93	1040	14.01	0.13	46
1900	1004				6.75	17.06	1044	12.78	0.14	39
2700	1007				6.75	17.29	1051	6.678	0.12	35
3600	1010	41.56	clear	none	6.75	17.34	1054	4.149	0.12	16
4500	1013	41.57	clear	none	6.75	17.40	1057	3.379	0.11	-2
5400	1016				6.75	17.33	1056	4.291	0.11	-15
6300	1019				6.75	17.50	1061	4.967	0.11	-23

CAK

Start Time: 0958 Elapsed Time (min): ~~1021~~ 1021 Water Quality Meter ID: TROLL 9500

Stop Time: 1021 Average Purge Rate (mL/min): 300 Date Calibrated: 1-11-13

SAMPLING DATA

Sample Date: 1-11-13 Sample Time: 1025 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: MS / MSD

VOA Vials, No Headspace ☒ Initials: CAK

COMMENTS: Purged ~450mL during prior to sampling & ~500mL during sampling DR

Total Purge Volume: 6300 mL

WTCR / Groundwater

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: 1st Quarter Rovana sampling PROJECT NUMBER: 215628S0.03001 FIELD PERSONNEL: M. Corbett, C. Williams

DATE: 1-21-13 WEATHER: 25° Cloudy

MONITORING WELL ID: P55 SAMPLE ID: P55-ROX-012113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 51.05 ft
Depth to Water (btoc): 43.60 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 41.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.45 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ≥4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 48.00 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ≥ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.9 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1413	43.60	Cloudy	HC	10.33	16.55	0.6313	735.3	0.06	-122
1200	1417	"	"		10.30	17.14	0.6338	484.1	0.03	-124
2400	1422	"	"		10.29	17.25	0.6337	225.2	0.01	-125
3600	1426	"	"		10.33	17.40	0.6358	100.3	0.01	-126
4800	1430	"	"		10.31	17.34	0.6368	49.50	0.00	-126
6000	1434	"	"		10.30	17.64	0.6393	30.10	0.00	-126
7200	1438	"	"		10.28	17.34	0.6339	20.05	-0.00	-126
8400	1442	"	"		10.25	17.36	0.6344	14.14	-0.01	-126
9600	1446	"	"		10.23	17.29	0.6307	10.57	-0.01	-126
10800	1450	"	"		10.20	17.37	0.6346	7.679	-0.01	-125

Start Time: 1413 Elapsed Time (min): 52 min. Water Quality Meter ID: Troll

Stop Time: 1451 Average Purge Rate (mL/min): 300 (mL/min) Date Calibrated: 1-21-13

SAMPLING DATA

Sample Date: 1-21-13 Sample Time: 1500 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: —

VOA Vials, No Headspace ☒ Initials: MC

COMMENTS:

Total Purge Volume: 10,800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: Jansen, Carroll

DATE: 1-17-13 | WEATHER: 38° Sunny 10-15 mph winds

MONITORING WELL ID: P-56 | SAMPLE ID: ~~RMA~~ P56-~~GWR~~ROX-011713

INITIAL DATA

Well Diameter): 2 in 65.78
Total Well Depth (btoc): ~~65.82~~ ft
Depth to Water (btoc): 45.85 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 40.82 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): ~~25.00~~ 30 20.00 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~60.82~~ 59 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ___ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = 55.03 ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1120	45.85	clear	none	9.34	18.00	1.100	26.16	.11	-50
~~900~~1200	1124				9.21	19.46	1.081	20.83	.10	-50
2400	1128				9.13	20.64	1.084	18.30	0.07	-49
3300	1131				9.12	20.60	1.092	17.57	0.04	-49
4500	1134				9.13	21.14	1.106	18.01	0.03	-48
5700	1137				9.19	21.31	1.101	18.69	0.01	-49
6900	1141				9.08	21.80	1.123	19.41	-0.01	-49
~~7~~8100	1144				9.04	22.50	1.138	20.18	-0.02	-50
9300	1147				9.16	22.18	1.138	20.42	-0.03	-51
10500	1150				9.17	22.35	1.145	21.06	-0.04	-51
11700	1153				9.19	22.32	1.141	21.44	-0.04	-51
12900	1159				9.20	22.01	1.136	13.61	-0.05	-50
14100	1203				9.32	21.19	1.110	5.27	-0.04	-49
15900	1206				9.33	20.84	1.098	5.02	-0.05	-48
16800	1209				9.31	20.70	1.096	4.84	-0.04	-48
17700	1212				9.24	20.98	1.106	4.56	-0.05	-47

Start Time: 1120 | Elapsed Time (min): ~~45~~ 47 | Water Quality Meter ID: TROLL 9500

Stop Time: 1207 | Average Purge Rate (mL/min): 300 | Date Calibrated: 1/17/13

SAMPLING DATA

Sample Date: 1/17/13 | Sample Time: 1225 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: NA

VOA Vials, No Headspace [X] | Initials: SEG

COMMENTS: ~200 mL purged prior to collecting reading

Total Purge Volume: 17700 mL

LOW FLOW GROUNDW. R SAMPLING DATA SHEET

PROJECT NAME: Roxana GW PROJECT NUMBER: 215628850.03001 FIELD PERSONNEL: L. Pathrow, T. Carroll

DATE: 1/29/13 WEATHER: Cloudy 55°F

MONITORING WELL ID: P-57 SAMPLE ID: P57-ROX-012913

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 65.46 ft
Depth to Water (btoc): 45.92 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 40.46 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 19.50 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 52.96 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	0907	45.92	clear	none	9.34	19.57	1.177	24.04	-0.02	-103
800	0909	nm	clear	none	9.31	18.86	1.128	17.28	-0.04	-101
1600	0911	nm	clear	none	9.31	20.12	1.115	14.19	-0.06	-102
2400	0914	45.92	clear	none	9.31	20.18	1.116	18.39	-0.07	-103
3600	0916	45.92	clear	none	9.32	20.16	1.117	29.72	-0.08	-104
4800	0919	45.92	clear	none	9.31	20.16	1.116	6.219	-0.08	-104

Start Time: 0907 Elapsed Time (min): 12 Water Quality Meter ID: Troll 9500

Stop Time: 0919 Average Purge Rate (mL/min): 400 Date Calibrated: 1/29/13

SAMPLING DATA

Sample Date: 1/29/13 Sample Time: 0925 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: YAR

COMMENTS:

Total Purge Volume: 4800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathbrow, R. Scherrer

DATE: 1/22/13 WEATHER: Cloudy, 15°F

MONITORING WELL ID: P-58 SAMPLE ID: P58-ROX-012213

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 65.21 ft
Depth to Water (btoc): 44.21 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 40.21 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 21.00 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 52.71 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ____ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	10:47	44.21	clear	strong	6.58	14.98	0.9385	666.48	0.17	-60
1200	10:50	nm	clear	strong	6.58	14.40	0.9204	61.24	0.14	-60
2000	10:52	44.21	clear	strong	6.58	15.62	0.9488	53.67	0.06	-61
3200	10:55	44.21	clear	strong	6.58	16.28	0.96088	47.29	0.03	-62
4000	10:57	44.21	clear	strong	6.57	17.31	0.9876	43.90	-0.01	-64
5200	10:00	nm	clear	strong	6.56	17.55	0.9900	39.45	-0.03	-65
6000	11:02	nm	clear	strong	6.56	17.60	0.9920	35.07	-0.04	-66
6800	11:04	nm	clear	strong	6.56	17.53	0.9905	32.20	-0.05	-66
8000	11:07	44.21	clear	strong	6.56	17.64	0.9895	29.55	-0.06	-66
8800	11:09	44.21	clear	strong	6.56	17.04	0.9752	28.02	-0.06	-67
9600	11:11	nm	clear	strong	6.57	16.64	0.9691	26.08	-0.06	-67
10800	11:14	nm	clear	strong	6.57	16.49	0.9648	25.21	-0.06	-67
11600	11:16	nm	clear	strong	6.57	16.34	0.9639	24.76	-0.07	-67
12800	11:19	44.21	clear	strong	6.57	16.48	0.9639	23.80	-0.07	-67

Start Time: 10:47 Elapsed Time (min): 32 Water Quality Meter ID: TROLL 9500

Stop Time: 11:19 Average Purge Rate (mL/min): 400 Date Calibrated: 1/22/13

SAMPLING DATA

Sample Date: 1/22/13 Sample Time: 11:25 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: LAR

COMMENTS:

Total Purge Volume: 12800 mL

LOW FLOW GROUNDW. .R SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW Sampling PROJECT NUMBER: 215628S0.0300 FIELD PERSONNEL: D Mattingly, A. Day

DATE: 1/30/13 WEATHER:

MONITORING WELL ID: P59 SAMPLE ID: P59-ROX-013013

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 72.91 ft
Depth to Water (btoc): 46.60 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 47.91 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 26.31 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is (4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 60.41 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are (4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : mL
Minimum Purge Volume = (3 x Flow Cell Volume): mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 12.0 ppm

PURGE DATA

Pump Type:

STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)

See 2nd Sheet for sampling parameters

Start Time: 1237 Elapsed Time (min): 10 min Water Quality Meter ID: T0119500

Stop Time: 1247 Average Purge Rate (mL/min): 300 mL Date Calibrated: 1/30/13

SAMPLING DATA

Sample Date: 1/30/13 Sample Time: 1250 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 mL QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: DM

COMMENTS: Purged w 350mL prior to sampling & ~400 mL during sampling

Total Purge Volume: 3000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: ~~URR~~ AD ROXANA GW **PROJECT NUMBER:** 215672050.03001 **FIELD PERSONNEL:** A. Day, D. Mattingly

DATE: 1/30/13 **MONITORING WELL ID:** P-59

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1237	46.60	clear	HC	6.68	16.20	1219	5.261	0.07	-80
900	1240	46.60	clear	HC	6.66	16.22	1213	4.876	0.03	-80
2100	1244	46.60	clear	HC	6.65	16.35	1210	5.343	0.00	-81
3000	1247	46.60	clear	HC	6.64	16.36	1208	4.985	0.00	-82

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathnow, T. Carroll

DATE: 1/18/13 WEATHER: Sunny, 50°F

MONITORING WELL ID: P-60-~~13S~~ 125 SAMPLE ID:

INITIAL DATA

Well Diameter): 0.75 in ~~19.16~~ 23.39 23.42

Total Well Depth (btoc): ~~20.00~~ ft

Depth to Water (btoc): ~~19.35~~ 19 ft

Depth to LNAPL/DNAPL (btoc): — ft

Depth to Top of Screen (btoc): 10.00 ft

Screen Length): 10 ft

19.24

Water Column Height (do not include LNAPL or DNAPL): ft btoc

If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ft btoc

If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc

If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc

Volume of Flow Through Cell : 973 mL

Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL

Ambient PID/FID Reading: 0.0 ppm

Wellbore PID/FID Reading: ppm

PURGE DATA

Pump Type:

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)

Start Time: Elapsed Time (min): Water Quality Meter ID: TROLL 9500

Stop Time: Average Purge Rate (mL/min): Date Calibrated:

SAMPLING DATA

Sample Date: Sample Time: Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): QA/QCSamples:

VOA Vials, No Headspace ☐ Initials:

COMMENTS: Not enough water to pull sample per SOP

Total Purge Volume: mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathnow, T. Carroll

DATE: 1/18/13 WEATHER: Sunny, 50°F

MONITORING WELL ID: P-60-~~125~~ 135 SAMPLE ID:

INITIAL DATA

Well Diameter): 0.75 in 9.16 - 19.20

Total Well Depth (btoc): ~~23.84~~ ft

Depth to Water (btoc): 17.85 ft

Depth to LNAPL/DNAPL (btoc): — ft

Depth to Top of Screen (btoc): 13.84 ft

Screen Length): 10 ft

17.61

Water Column Height (do not include LNAPL or DNAPL): — ft btoc

If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc

If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc

If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL

Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL

Ambient PID/FID Reading: 0.0 ppm

Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: —

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)

Start Time: — Elapsed Time (min): — Water Quality Meter ID: TROLL 9500

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: —

SAMPLING DATA

Sample Date: — Sample Time: — Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS: Not enough water in well to sample per SOP

Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathbun, T. Carroll

DATE: 1/18/13 WEATHER: Sunny, 40°F

MONITORING WELL ID: P-66 SAMPLE ID: P-66-ROX-01813, P66-ROX-01813-EB

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 59.72 ft
Depth to Water (btoc): 35.70 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.72 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 24.02 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 47.22 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	10:31	35.70	clear	none	6.54	17.64	0.9037	100.55	0.93	-62
1200	10:34	nm	clear	none	6.48	17.80	0.9104	43.33	0.34	-65
2000	10:36	nm	clear	none	6.48	17.95	0.9129	37.73	0.23	-68
2800	10:38	nm	clear	none	6.47	18.22	0.9189	37.43	0.15	-70
4000	10:41	35.70	clear	none	6.47	18.42	0.9235	44.05	0.07	-72
6400	10:47	35.70	clear	none	6.47	18.72	0.9324	74.03	-0.02	-75
7600	10:50	35.70	clear	none	6.47	18.73	0.9331	112.9	-0.03	-76
8400	10:52	nm	clear	none	6.47	18.41	0.93558	15.84	-0.07	-77
9200	10:54	35.70	clear	none	6.47	18.86	0.9374	14.94	-0.07	-78
11400	10:57	nm	clear	none	6.47	18.86	0.9379	14.32	-0.08	-78
12200	10:59	nm	clear	none	6.47	18.97	0.9402	16.78	-0.08	-79
13000	11:01	35.70	clear	none	6.47	18.92	0.9397	12.49	-0.08	-79
14200	11:04	nm	clear	none	6.47	18.94	0.9405	13.67	-0.08	-79
15000	11:06	nm	clear	none	6.47	18.97	0.9422	14.01	-0.08	-79
15800	11:08	nm	clear	none	6.48	19.06	0.9429	14.28	-0.08	-79

Start Time: 10:31 Elapsed Time (min): 37 Water Quality Meter ID: TROLL 9500

Stop Time: 11:08 Average Purge Rate (mL/min): 400 Date Calibrated: 1/18/13

SAMPLING DATA

Sample Date: 1/18/13 Sample Time: 11:10 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: EB

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 15800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathbun/T. Carroll

DATE: 1/18/13 WEATHER: Sunny, 50°F

MONITORING WELL ID: P-68 SAMPLE ID:

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 70.26 ft
Depth to Water (btoc): 45.26 ft
Depth to LNAPL/DNAPL (btoc): 45.73 ft
Depth to Top of Screen (btoc): 45.26 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): — ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)

Start Time: — Elapsed Time (min): — Water Quality Meter ID: TROLL 9500

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: —

SAMPLING DATA

Sample Date: — Sample Time: — Lab Analysis: VOC, SVOC

Sample Method: — Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS: Product in well. No sample taken

Total Purge Volume: — mL

TOC a well bottom

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: Janson/Carroll

DATE: 1-17-13 | WEATHER: 41° sunny 10-15 mph winds

MONITORING WELL ID: P-74 | SAMPLE ID: P74-ROX-011713

66 ft. tubing

INITIAL DATA

Well Diameter): 4 in 68.80
Total Well Depth (btoc): ~~69.43~~ ft
Depth to Water (btoc): 42.65 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 44.43 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 26.15 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet, Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~55.07~~ 56.90 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are <4ft, Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ft btoc
46.43

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0 ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	~~SG~~ Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	~~1447~~ 1526	42.65	clear	none	10.16	16.73	0.3781	34.47	-0.03	-14
900	1529				10.17	16.84	0.3891	31.04	-0.04	-18
1800	1532				10.19	16.93	0.4000	31.80	-0.05	-22
2700	1535				10.19	16.93	0.4097	29.80	-0.06	-25
3600	1538				10.21	16.81	0.4182	28.41	-0.07	-29
4500	1541				10.21	16.77	0.4263	28.08	-0.07	-32
5400	1544				10.23	16.66	0.4324	24.32	-0.07	-35
6300	1547				10.23	16.80	0.4393	23.99	-0.08	-37
7500	1551				10.24	16.88	0.4454	24.29	-0.08	-39

Start Time: 1526 | Elapsed Time (min): 25 | Water Quality Meter ID: TROLL 9500

Stop Time: 1551 | Average Purge Rate (mL/min): 300 | Date Calibrated: 1-17-13

SAMPLING DATA

Sample Date: 1-17-13 | Sample Time: ~~300~~ SG 1559 | Lab Analysis: VOC, SVOC

Sample Method: low flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: SEG

COMMENTS: purged ~500 mL prior to stabilized readings

Total Purge Volume: 7500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Mathews, R. Scherrer

DATE: 1/23/13 WEATHER: Sunny 40°F

MONITORING WELL ID: P-93A SAMPLE ID: P93A-ROX-012313, P93A-ROX-012313-Dup

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 63.17 ft
Depth to Water (btoc): 45.85 ft
Depth to LNAPL/DNAPL (btoc): ft
Depth to Top of Screen (btoc): 48.17 ft
Screen Length): 15 ft

Water Column Height (do not include LNAPL or DNAPL): 17.32 ~~55.67~~ HR ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 55.67 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Well-Wizard

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	~~14:42~~	45.85	clear	none	6.65	13.34	1.122	8.150	1.04	-81
11,000	14:46	nm	clear	none	6.55	19.91	1.135	26.65	3.73	-73
34,000	14:51	45.85	clear	none	6.54	19.82	1.123	41.86	5.03	-70
57,000	14:56	45.85	clear	none	6.87	20.19	1.140	45.80	4.08	-71
71,400	~~15~~:01	nm	clear	none	6.86	20.39	1.157	46.71	4.93	-69
94,200	15:05	45.85	clear	none	6.81	20.17	1.164	51.13	4.63	-65
112,00	15:10	nm	clear	none	6.81	20.19	1.178	40.61	4.45	-66
132,00	15:15	nm	clear	none	6.80	20.17	1.184	38.91	4.07	-66
152,00	15:20	nm	clear	none	6.80	20.21	1.193	36.78	4.24	-67
172,00	15:25	45.85	clear	none	6.79	20.25	1.193	36.06	4.26	-66

Start Time: 14:42 Elapsed Time (min): ~~48~~ HR 33 Water Quality Meter ID: TROLL 9500

Stop Time: 15:25 Average Purge Rate (mL/min): 400 Date Calibrated: 1/23/13

SAMPLING DATA

Sample Date: 1/23/13 Sample Time: 15:30 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: Dup

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 172,00 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathbun, R. Scherrer

DATE: 1/23/13 WEATHER: Sunny | 35°F

MONITORING WELL ID: P-93B SAMPLE ID: P93B-ROX-012313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 76.60 ft
Depth to Water (btoc): 45.89 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 74.60 ft
Screen Length): 2 ft

Water Column Height (do not include LNAPL or DNAPL): 30.71 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 75.60 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Well-Wizard

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	14:03	45.89	clear	none	6.99	17.18	1.437	35.05	3.54	-66
2400	14:09	45.89	clear	none	6.97	17.69	1.552	5.818	0.49	-103
4800	14:15	nm	clear	none	6.92	17.88	1.694	7.268	0.22	-111
6800	14:20	nm	clear	none	6.81	17.95	1.724	3.905	0.14	-114
7000	14:25	nm	clear	none	6.80	17.81	1.731	2.921	0.13	-116

Start Time: 14:03 Elapsed Time (min): 22 Water Quality Meter ID: TROLL 9500

Stop Time: 14:25 Average Purge Rate (mL/min): 400 Date Calibrated: 1/23/13

SAMPLING DATA

Sample Date: 1/23/13 Sample Time: 14:30 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☑ Initials:

COMMENTS:

Total Purge Volume: 7000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathbun, R. Scherrer

DATE: 1/23/13 WEATHER: Sunny | 35°F

MONITORING WELL ID: P-93C SAMPLE ID: P93C-ROX-012313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 96.26 ft
Depth to Water (btoc): 45.78 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 94.26 ft
Screen Length): 2 ft

Water Column Height (do not include LNAPL or DNAPL): 50.48 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 95.26 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Well-Wizard

STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	13:23	45.78	clear	none	7.12	15.13	1.031	4.489	0.96	-104
1600	13:27	nm	clear	none	6.97	17.90	0.9431	1.876	0.36	-107
4000	13:33	nm	clear	none	6.93	17.34	0.9138	0.5996	0.31	-111
6000	13:38	nm	clear	none	6.92	17.55	0.9233	0.3650	0.17	-114
8000	13:43	nm	clear	none	6.91	17.46	0.9184	0.5073	0.13	-116
10000	13:48	nm	clear	none	6.91	17.46	0.9156	0.3268	0.12	-118

Start Time: 13:23 Elapsed Time (min): 25 Water Quality Meter ID: TROLL 9500

Stop Time: 13:48 Average Purge Rate (mL/min): 400 Date Calibrated: 1/23/13

SAMPLING DATA

Sample Date: 1/23/13 Sample Time: 13:50 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☑ Initials: [signature]

COMMENTS:

Total Purge Volume: 10000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathbrow, R. Scherrer

DATE: 1/22/13 WEATHER: Cloudy 15°F

MONITORING WELL ID: P-93D SAMPLE ID: P93D-ROX-012213

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 128.0 ft
Depth to Water (btoc): 46.05 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 125.75 ft
Screen Length): 2 ft

Water Column Height (do not include LNAPL or DNAPL): ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 126.75 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	13:31	46.05	clear	none	7.09	18.72	1.184	18.72	0.07	-76
1600	13:35	nm	clear	none	7.08	16.08	1.185	11.07	0.03	-76
3200	13:39	nm	clear	none	7.07	16.16	1.189	6.138	0.01	-76
4400	13:42	nm	clear	none	7.07	16.25	1.187	4.914	-0.01	-77

Start Time: 13:31 Elapsed Time (min): 11 Water Quality Meter ID: TROLL 9500

Stop Time: 13:42 Average Purge Rate (mL/min): 400 Date Calibrated: 1/22/13

SAMPLING DATA

Sample Date: 1/22/13 Sample Time: 13:45 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☑ Initials: LAR

COMMENTS:

Total Purge Volume: 4400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathnow, R. Scherrer

DATE: 1/23/13 WEATHER: Sunny 20°F

MONITORING WELL ID: P-114 SAMPLE ID: P114-ROX-012313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.67 ft
Depth to Water (btoc): 31.86 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 32.67 ft
Screen Length): 20 ft

Water Column Height (do not include LNAPL or DNAPL): 20.81 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 42.67 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	10:54	31.86	clear	none	7.106	17.76	0.8132	261.1	1.27	-109
11,00	10:58	nm	clear	none	7.83	18.71	0.8369	232.8	0.85	-123
3200	11:02	nm	clear	none	7.79	18.99	0.7989	322.0	0.80	-134
4200	11:06	31.86	clear	none	7.67	19.11	0.7787	75.92	1.01	-124
6400	11:10	31.86	clear	none	7.57	19.14	0.7614	43.42	1.08	-114
8000	11:15	nm	clear	none	7.48	19.21	0.7603	35.12	1.11	-109
9600	11:19	nm	clear	none	7.40	19.34	0.7680	32.04	1.20	-106
11200	11:23	31.86	clear	none	7.36	19.31	0.7700	22.42	1.29	-103
12800	11:27	nm	clear	none	7.33	19.34	0.7720	16.43	1.39	-99
14600	11:31	nm	clear	none	7.30	19.47	0.7760	15.00	1.37	-100
16200	11:35	nm	clear	none	7.28	19.55	6.7816	390.2	1.35	-99
18200	11:40	31.86	clear	none	7.27	19.52	6.7816	12.57	1.46	-97
19800	11:44	31.86	clear	none	7.25	19.52	0.7822	9.139	1.53	-96

Start Time: 10:54 Elapsed Time (min): 50 Water Quality Meter ID: TROLL 9500

Stop Time: 11:45 Average Purge Rate (mL/min): 400 Date Calibrated: 1/23/13

SAMPLING DATA

Sample Date: 1/23/13 Sample Time: 11:50 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace [X] Initials: LAR

COMMENTS:

Total Purge Volume: 19800 mL

LOW FLOW GROUNDW. [illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q GW PROJECT NUMBER: 215628508300l FIELD PERSONNEL: Jansen/Kretzer

DATE: 1/23/13 WEATHER: 29° sunny

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ROST-3-MW-ROX-012313 (no dash)

INITIAL DATA

Well Diameter: 2 in
Total Well Depth (btoc): 48.43 ft
Depth to Water (btoc): 41.74 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 38.43 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.69 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 43.43 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ____ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ____ ft btoc

Volume of Flow Through Cell: 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0-0.5 ppm
Wellbore PID/FID Reading: 952 ppm

PURGE DATA

Pump Type: Monsoon

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1017	41.74	Cloudy	Slight	11.09	16.28	0.7132	333.6	-0.03	-119
900	1020	"	"	"	10.19	16.80	0.7205	106.8	-0.05	-121
1800	1023	"	Clearer	"	10.05	16.62	0.7155	98.54	-0.06	-122
2700	1026	"	"	"	9.960	16.76	0.7195	50.69	-0.06	-123
3600	1029	"	"	"	9.94	16.87	0.7204	30.70	-0.06	-124
4500	1032	"	clear	"	9.87	16.77	0.7192	22.48	-0.06	-124
5400	1035	"	clear	"	10.06	16.70	0.7190	17.27	-0.07	-125
6600	1039	"	clear	"	10.12	16.74	0.7173	12.51	-0.07	-125
7500	1042	"	clear	"	10.08	16.89	0.7217	8.754	-0.07	-126
8400	1045	"	clear	"	9.87	16.92	0.7229	6.824	-0.08	-124

Start Time: 1017
Stop Time: 1045
Elapsed Time (min): 38
Average Purge Rate (mL/min): 300
Water Quality Meter ID: Troll 9500
Date Calibrated: 1/23/2013

SAMPLING DATA

Sample Date: Jan 23 2013
Sample Time: 1100
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / (Low Flow)
Sample Flow Rate (mL/min): 300
QA/QC Samples: None
VOA Vials, No Headspace ☒ Initials: SEG

COMMENTS: purged ~ 500 mL water prior to stabilized readings

Total Purge Volume: 8400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW | PROJECT NUMBER: 21562850.03001 | FIELD PERSONNEL: C. Kretor / D. Mattingly

DATE: 1-11-13 | WEATHER: 60°F, Partly Cloudy

MONITORING WELL ID: ROST-4-PZ(C) | SAMPLE ID: ~~MW~~ ROST4PZ(C)-ROX-011113

INITIAL DATA

Well Diameter): 2 in ~~45.20~~
45.20 Total Well Depth (btoc): ~~45.20~~ ft
41.42 Depth to Water (btoc): ~~40.53~~ ft
Depth to LNAPL/DNAPL (btoc): —— ft
Depth to Top of Screen (btoc): 34.95 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): ~~4.68~~ 3.78 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft, 45.31
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ~~42.82~~ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = —— ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: NM ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: +/- 0.2 | +/- 0.2 °C | +/- 3% | +/- 10% | +/- 0.2 mg/L | +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	1346	41.42 ~~45.20~~ ct	grey	none	6.74	17.70	1086	53.31	0.17	-135
900	1349				6.75	18.43	1089	45.03	0.09	-48
~~1800~~ 1800	1352				6.76	18.87	1090	34.85	0.05	-157
2700	1355	41.73			6.76	19.20	1092	20.49	0.03	-160 3
3600	1358				6.76	19.34	1092	11.84	0.01	-168
4500	1401				6.77	19.35	1091	7.822	0.00	-173

AMC

Start Time: 1346 | Elapsed Time (min): 16 | Water Quality Meter ID: TROLL 9500

Stop Time: 1402 | Average Purge Rate (mL/min): 300 | Date Calibrated: 1-11-13

SAMPLING DATA

Sample Date: 01-11-13 | Sample Time: 1405 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: AMC

COMMENTS: Purged ~ 400mL prior to sampling and ~ 450mL during sampling

Total Purge Volume: 4500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: D. Mattingly, C. Kretzer

DATE: 1/10/13 WEATHER: Cloudy, rain

MONITORING WELL ID: ROST-5-PZ SAMPLE ID: —

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 23.20 ft
Depth to Water (btoc): — ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 13.20 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): — ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is <4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are < 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: —

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
					Dry					

Start Time: — Elapsed Time (min): — Water Quality Meter ID: TROLL 9500

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: 1/10/13

SAMPLING DATA

Sample Date: 1/10/13 Sample Time: — Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: D. Mattingly, C. Kretzer

DATE: 1/10/13 WEATHER: Cloudy.

MONITORING WELL ID: ROST-7-PZ SAMPLE ID: —

INITIAL DATA

Well Diameter): 1 in 28.92
Total Well Depth (btoc): ~~30.00~~ ft
Depth to Water (btoc): 25.35 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 20.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 3.57 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: —

STABLE: +/- 0.2 +/- 0.2 °C +/- 3% +/- 10% +/- 0.2 mg/L +/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)

Start Time: — Elapsed Time (min): — Water Quality Meter ID: TROLL 9500

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: —

SAMPLING DATA

Sample Date: — Sample Time: — Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

Not enough water in well to sample per SOP.

3.57 × 0.041 = 0.147 gal

Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: —

DATE: 1/10/13 WEATHER: cloudy, rainy

MONITORING WELL ID: ROST-10-PZ SAMPLE ID: —

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 20.00 ft
Depth to Water (btoc): — ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 10.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): — ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = — ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: —

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)

Dry

Start Time: — Elapsed Time (min): — Water Quality Meter ID: TROLL 9500

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: 1/10/13

SAMPLING DATA

Sample Date: — Sample Time: — Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: D. Mattingly, C. Kretzer

DATE: 1/10/13 WEATHER: Cloudy, rainy

MONITORING WELL ID: ROST-21-PZ SAMPLE ID: ~~~

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 20.00 ft
Depth to Water (btoc): ~~~ ft
Depth to LNAPL/DNAPL (btoc): ~~~ ft
Depth to Top of Screen (btoc): 10.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): ~~~ ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = ~~~ ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = ~~~ ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = ~~~ ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.8 ppm
Wellbore PID/FID Reading: 0.8 ppm

PURGE DATA

Pump Type: ~~~

	STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
					Dry					

Start Time: ~~~ Elapsed Time (min): ~~~ Water Quality Meter ID: TROLL 9500

Stop Time: ~~~ Average Purge Rate (mL/min): ~~~ Date Calibrated: 1/10/13

SAMPLING DATA

Sample Date: ~~~ Sample Time: ~~~ Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): ~~~ QA/QCSamples: ~~~

VOA Vials, No Headspace ☐ Initials: ~~~

COMMENTS:

Total Purge Volume: ~~~ mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 1Q13 GW PROJECT NUMBER: 21562850.03001 FIELD PERSONNEL: L. Rathman, T. Carroll

DATE: 1/18/13 WEATHER: Sunny, 50°F

MONITORING WELL ID: T-12 SAMPLE ID: T12-ROX-011813

INITIAL DATA

Well Diameter): 6 in
Total Well Depth (btoc): 72.46 ft
Depth to Water (btoc): 44.50 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 46.46 ft
Screen Length): 26 ft

Water Column Height (do not include LNAPL or DNAPL): 27.96 ft btoc
If Depth to Top of Screen is > Depth to Water AND Screen Length is ⟨4 feet,
Place Pump at: Total Well Depth – 0.5 (Screen Length + DNAPL Column Height) = 59.46 ft btoc
If Depth to Top of Screen is < Depth to Water AND Water Column Height and Screen Length are ⟨ 4ft,
Place Pump at: Total Well Depth – (0.5 X Water Column Height + DNAPL Column Height) = — ft btoc
If Screen Length and/or water column height is < 4 ft, Place Pump at: Total Well Depth - 2 ft = — ft btoc

Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE:	+/- 0.2	+/- 0.2 °C	+/- 3%	+/- 10%	+/- 0.2 mg/L	+/- 20 mV

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
0	13:40	44.50	clear	none	6.94	16.19	1.082	2.756	0.23	-108
800	13:42	44.50	clear	none	6.94	16.14	1.080	2.402	0.13	-111
2000	13:45	44.50	clear	none	6.94	16.05	1.077	2.554	0.07	-113
2400	13:47	44.50	clear	none	6.94	15.97	1.076	2.289	0.03	-115
3600	13:49	44.50	clear	none	6.94	15.76	1.072	2.402	0.02	-116
4800	13:52	44.50	clear	none	6.93	16.19	1.074	2.165	0.01	-116
6000	13:55	44.50	clear	none	6.93	15.66	1.072	2.115	0.04	-117
6800	13:57	nm	clear	none	6.93	15.62	1.073	2.015	0.02	-117
8000	14:00	nm	clear	none	6.93	15.73	1.075	2.111	0.00	-117

Start Time: 13:40 Elapsed Time (min): 20 Water Quality Meter ID: TROLL 9500

Stop Time: 14:00 Average Purge Rate (mL/min): 400 Date Calibrated: 1/18/13

SAMPLING DATA

Sample Date: 1/18/13 Sample Time: 1405 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: LAR

COMMENTS:

Total Purge Volume: 8000 mL

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: 13010910

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 1/29/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW10-ROX-012113	P55-ROX-012113
TB-ROX-012113-HCL	TB-ROX-012113-ST

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Although not indicated in the laboratory case narrative, SVOC LCSD recovery and LCS/LCSD RPD was outside evaluation criteria for pyridine. Professional judgment was used to qualify 2-butanone in sample MW10-ROX-012113. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated two out of two VOA vials for TB-ROX-012113-HCL were received by the laboratory with minimal headspace. Target analytes were not detected in the trip blank; no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD-85074	SVOCs	Pyridine	53/**20**	**91**	22-66/40

Analytical data that required qualification based on LCS data are included in the table

below. LCS/LCSD-85074 was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
MW10-ROX-012113	SVOCs	Pyridine	**UJ**
P55-ROX-012113	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although not requested, sample P55-ROX-012113 was spiked and analyzed for VOCs.

Were MS/MSD recoveries within evaluation criteria?

Yes

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, professional judgment was used to qualify the common laboratory contaminant 2-butanone (MEK) reported at concentrations less than two (2X) the reporting limit (RL).

Sample ID	Analyte	New RL	Qualification	Comment
MW10-ROX-012113	2-Butanone (MEK)	-	**U**	Professional Judgment

URS CORPORATION
JAN 24 2013
RECEIVED

January 22, 2013

Bob Billman
URS Corporation
1001 Highlands Plaza Drive West
Suite 300
St. Louis, MO 63110
TEL: (314) 429-0100
FAX: (314) 429-0462

RE: Roxana Quarterly GW/21562850.03001 **WorkOrder:** 13010910

Dear Bob Billman:

TEKLAB, INC received 4 samples on 1/21/2013 5:21:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Marvin L. Darling II

Marvin L. Darling
Project Manager
(618)344-1004 ex 41
mdarling@tcklabinc.com

Reviewed on 1/29/2013

Client: URS Corporation
Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	4
Laboratory Results	5
Sample Summary	16
Quality Control Results	17
Receiving Check List	32
Chain of Custody	Appended

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

Abbr Definition

CCV	Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
DF	Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
DNI	Did not ignite
DUP	Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
ICV	Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
IDPH	IL Dept. of Public Health
LCS	Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to esteblish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
LCSD	Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MB	Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the enalytical results for sample analyses.
MDL	Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
MS	Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
MSD	Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
MW	Molecular weight
ND	Not Detected at the Reporting Limit
NELAP	NELAP Accredited
PQL	Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The accepteble recovery range is listed in the QC Package (provided upon request).
RL	The reporting limit the fowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
RPD	Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
SPK	The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
Surr	Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
TNTC	Too numerous to count (> 200 CFU)

Qualifiers

# - Unknown hydrocarbon	B - Analyte detected in associated Method Blank
E - Value above quantitation range	H - Holding times exceeded
J - Analyte detected below quantitation limits	M - Manual Integration used to determine area response
ND - Not Detected at the Reporting Limit	R - RPD outside accepted recovery limits
S - Spike Recovery outside recovery limits	X - Value exceeds Maximum Contaminant Level

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

Cooler Receipt Temp: 5.8 °C

In cases where the requested detection limits are below our current MDL, analysts were instructed to try and meet the MDL as the detection limit.

Locations and Accreditations

Collinsville		Springfield		Kansas City	
Address	5445 Horseshoe Lake Road Collinsville, IL 62234-7425	**Address**	3920 Pintail Dr Springfield, IL 62711-9415	**Address**	8421 Nieman Road Lenexa, KS 66214
Phone	(618) 344-1004	**Phone**	(217) 698-1004	**Phone**	(913) 541-1998
Fax	(618) 344-1005	**Fax**	(217) 698-1005	**Fax**	(913) 541-1998
Email	jhriley@teklabinc.com	**Email**	KKlostermann@teklabinc.com	**Email**	dthompson@teklabinc.com

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2014	Collinsville
Kansas	KDHE	E-10374	NELAP	1/31/2013	Collinsville
Louisiana	LDEQ	166493	NELAP	6/30/2013	Collinsville
Louisiana	LDEQ	166578	NELAP	6/30/2013	Springfield
Texas	TCEQ	T104704515-12-1	NELAP	7/31/2013	Collinsville
Arkansas	ADEQ	88-0966		3/14/2013	Collinsville
Illinois	IDPH	17584		4/30/2013	Collinsville
Kentucky	UST	0073		5/26/2013	Collinsville
Missouri	MDNR	00930		4/13/2013	Collinsville
Oklahoma	ODEQ	9978		8/31/2013	Collinsville

Client: URS Corporation
Work Order: 13010910
Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13
Lab ID: 13010910-001
Client Sample ID: MW10-ROX-012113
Matrix: GROUNDWATER
Collection Date: 01/21/2013 15:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Acenaphthylene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Anthracene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Benzo(a)anthracene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Benzo(a)pyrene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Benzo(b)fluoranthene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Benzo(g,h,i)perylene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Benzo(k)fluoranthene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Chrysene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Dibenzo(a,h)anthracene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Fluoranthene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Fluorene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Indeno(1,2,3-cd)pyrene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Naphthalene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Phenanthrene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Pyrene	NELAP	0.00010		ND	mg/L	1	01/22/2013 11:09	85073
Surr: 2-Fluorobiphenyl		34.3-105		70.0	%REC	1	01/22/2013 11:09	85073
Surr: Nitrobenzene-d5		36.4-127		80.8	%REC	1	01/22/2013 11:09	85073
Surr: p-Terphenyl-d14		6.05-133		89.2	%REC	1	01/22/2013 11:09	85073
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,4-Trichlorobenzene	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
1,2-Dichlorobenzene	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
1,3-Dichlorobenzene	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
1,4-Dichlorobenzene	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2,4,5-Trichlorophenol	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2,4,6-Trichlorophenol	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2,4-Dichlorophenol	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2,4-Dimethylphenol	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2,4-Dinitrophenol	NELAP	0.014		ND	mg/L	1	01/22/2013 11:39	85074
2,4-Dinitrotoluene	NELAP	0.002		ND	mg/L	1	01/22/2013 11:39	85074
2,6-Dinitrotoluene	NELAP	0.001		ND	mg/L	1	01/22/2013 11:39	85074
2-Chloronaphthalene	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2-Chlorophenol	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2-Methoxy-4-methylphenol		0.010		ND	mg/L	1	01/22/2013 11:39	85074
2-Methylnaphthalene	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
2-Nitroaniline	NELAP	0.021		ND	mg/L	1	01/22/2013 11:39	85074
2-Nitrophenol	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
3,3'-Dichlorobenzidine	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
3-Nitroaniline	NELAP	0.002		ND	mg/L	1	01/22/2013 11:39	85074
4,6-Dinitro-2-methylphenol	NELAP	0.004		ND	mg/L	1	01/22/2013 11:39	85074
4-Bromophenyl phenyl ether	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
4-Chloro-3-methylphenol	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
4-Chloroaniline	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
4-Chlorophenyl phenyl ether	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
4-Nitroaniline	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
4-Nitrophenol	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
Aniline	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074

Client: URS Corporation | **Work Order:** 13010910

Client Project: Roxana Quarterly GW/21562850.03001 | **Report Date:** 22-Jan-13

Lab ID: 13010910-001 | **Client Sample ID:** MW10-ROX-012113

Matrix: GROUNDWATER | **Collection Date:** 01/21/2013 15:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Azobenzene		0.010		ND	mg/L	1	01/22/2013 11:39	85074
Benzidine	NELAP	0.040		ND	mg/L	1	01/22/2013 11:39	85074
Benzoic acid	NELAP	0.050		ND	mg/L	1	01/22/2013 11:39	85074
Benzyl alcohol	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
Bis(2-chloroethoxy)methane	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Bis(2-chloroethyl)ether	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Bis(2-chloroisopropyl)ether	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Bis(2-ethylhexyl)phthalate	NELAP	0.006		ND	mg/L	1	01/22/2013 11:39	85074
Butyl benzyl phthalate	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Carbazole	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
Dibenzofuran	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Diethyl phthalate	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Dimethyl phthalate	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Di-n-butyl phthalate	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Di-n-octyl phthalate	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Hexachlorobenzene	NELAP	0.002		ND	mg/L	1	01/22/2013 11:39	85074
Hexachlorobutadiene	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Hexachlorocyclopentadiene	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
Hexachloroethane	NELAP	0.007		ND	mg/L	1	01/22/2013 11:39	85074
Isophorone	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
m,p-Cresol	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Nitrobenzene	NELAP	0.004		ND	mg/L	1	01/22/2013 11:39	85074
N-Nitrosodimethylamine	NELAP	0.020		ND	mg/L	1	01/22/2013 11:39	85074
N-Nitroso-di-n-propylamine	NELAP	0.002		ND	mg/L	1	01/22/2013 11:39	85074
N-Nitrosodiphenylamine	NELAP	0.003		ND	mg/L	1	01/22/2013 11:39	85074
o-Cresol	NELAP	0.010		ND	mg/L	1	01/22/2013 11:39	85074
Pentachlorophenol	NELAP	0.004		ND	mg/L	1	01/22/2013 11:39	85074
Phenol	NELAP	0.005		ND	mg/L	1	01/22/2013 11:39	85074
Pyridine	NELAP	0.010	U3	ND	mg/L	1	01/22/2013 11:39	85074
Quinoline		0.005		ND	mg/L	1	01/22/2013 11:39	85074
1,2-Diphenylhydrazine		0		ND	mg/L	1	01/22/2013 11:39	85074
Surr: 2,4,6-Tribromophenol		21.9-140		97.0	%REC	1	01/22/2013 11:39	85074
Surr: 2-Fluorobiphenyl		43.7-103		80.1	%REC	1	01/22/2013 11:39	85074
Surr: 2-Fluorophenol		19.4-65.2		55.1	%REC	1	01/22/2013 11:39	85074
Surr: Nitrobenzene-d5		48.9-102		87.6	%REC	1	01/22/2013 11:39	85074
Surr: Phenol-d5		12.1-40.3		35.0	%REC	1	01/22/2013 11:39	85074
Surr: p-Terphenyl-d14		14.2-109		96.3	%REC	1	01/22/2013 11:39	85074

RPD for LCS/LCSD was outside of QC limit.

Results have less certainty for Pentachlorophenol and 4,6-Dinitro-2-methylphenol - Client Requested Quantitation Limit is below the calibration range.

Allowable Marginal Exceedance of Pyridine in the LCSD verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,1,1-Trichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,1,2,2-Tetrachloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,1,2-Trichloro-1,2,2-trifluoroethane		20.0		ND	µg/L	1	01/21/2013 18:13	85086
1,1,2-Trichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,1-Dichloro-2-propanone		50.0		ND	µg/L	1	01/21/2013 18:13	85086

Client: URS Corporation | **Work Order:** 13010910

Client Project: Roxana Quarterly GW/21562850.03001 | **Report Date:** 22-Jan-13

Lab ID: 13010910-001 | **Client Sample ID:** MW10-ROX-012113

Matrix: GROUNDWATER | **Collection Date:** 01/21/2013 15:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1-Dichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,1-Dichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,1-Dichloropropene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2,3-Trichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2,3-Trichloropropane	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2,3-Trimethylbenzene		5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2,4-Trichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2,4-Trimethylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2-Dibromo-3-chloropropane	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2-Dibromoethane	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2-Dichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2-Dichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,2-Dichloropropane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,3,5-Trimethylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,3-Dichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,3-Dichloropropane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1,4-Dichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
2,2-Dichloropropane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
2-Butanone	NELAP	25.0	J	5.1	µg/L	1	01/21/2013 18:13	85086
2-Chloroethyl vinyl ether	NELAP	20.0		ND	µg/L	1	01/21/2013 18:13	85086
2-Chlorotoluene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
2-Hexanone	NELAP	25.0		ND	µg/L	1	01/21/2013 18:13	85086
2-Nitropropane	NELAP	50.0		ND	µg/L	1	01/21/2013 18:13	85086
4-Chlorotoluene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
4-Methyl-2-pentanone	NELAP	25.0		ND	µg/L	1	01/21/2013 18:13	85086
Acetone	NELAP	25.0		ND	µg/L	1	01/21/2013 18:13	85086
Acetonitrile	NELAP	50.0		ND	µg/L	1	01/21/2013 18:13	85086
Acrolein	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Acrylonitrile	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
Allyl chloride	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Benzene	NELAP	2.0		3.0	µg/L	1	01/21/2013 18:13	85086
Bromobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Bromochloromethane	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
Bromodichloromethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Bromoform	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
Bromomethane	NELAP	9.8		ND	µg/L	1	01/21/2013 18:13	85086
Carbon disulfide	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Carbon tetrachloride	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Chlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Chloroethane	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Chloroform	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
Chloromethane	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Chloroprene	NELAP	20.0		ND	µg/L	1	01/21/2013 18:13	85086
cis-1,2-Dichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
cis-1,3-Dichloropropene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
cis-1,4-Dichloro-2-butene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086

Client: URS Corporation
Work Order: 13010910
Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13
Lab ID: 13010910-001
Client Sample ID: MW10-ROX-012113
Matrix: GROUNDWATER
Collection Date: 01/21/2013 15:20

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Cyclohexanone		50.0		ND	µg/L	1	01/21/2013 18:13	85086
Dibromochloromethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Dibromomethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Dichlorodifluoromethane	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Ethyl acetate	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Ethyl ether	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Ethylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Hexachloroethane	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Iodomethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Isopropylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
m,p-Xylenes	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Methacrylonitrile	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	01/21/2013 18:13	85086
Methylacrylate		10.0		ND	µg/L	1	01/21/2013 18:13	85086
Methylene chloride	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Naphthalene	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
n-Butyl acetate		25.0		ND	µg/L	1	01/21/2013 18:13	85086
n-Butylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
n-Heptane		20.0		ND	µg/L	1	01/21/2013 18:13	85086
n-Hexane		20.0		ND	µg/L	1	01/21/2013 18:13	85086
Nitrobenzene	NELAP	50.0		ND	µg/L	1	01/21/2013 18:13	85086
n-Propylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
o-Xylene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Pentachloroethane	NELAP	20.0		ND	µg/L	1	01/21/2013 18:13	85086
p-Isopropyltoluene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Propionitrile	NELAP	50.0		ND	µg/L	1	01/21/2013 18:13	85086
sec-Butylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Styrene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
tert-Butylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Tetrachloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Tetrahydrofuran	NELAP	20.0		ND	µg/L	1	01/21/2013 18:13	85086
Toluene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
trans-1,2-Dichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
trans-1,3-Dichloropropene	NELAP	1.0		ND	µg/L	1	01/21/2013 18:13	85086
trans-1,4-Dichloro-2-butene	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Trichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	01/21/2013 18:13	85086
Vinyl acetate	NELAP	10.0		ND	µg/L	1	01/21/2013 18:13	85086
Vinyl chloride	NELAP	2.0		ND	µg/L	1	01/21/2013 18:13	85086
Surr: 1,2-Dichloroethane-d4		74.7-129		98.4	%REC	1	01/21/2013 18:13	85086
Surr: 4-Bromofluorobenzene		86-119		99.3	%REC	1	01/21/2013 18:13	85086
Surr: Dibromofluoromethane		81.7-123		99.0	%REC	1	01/21/2013 18:13	85086
Surr: Toluene-d8		84.3-114		98.6	%REC	1	01/21/2013 18:13	85086

Client: URS Corporation
Work Order: 13010910
Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13
Lab ID: 13010910-002
Client Sample ID: P55-ROX-012113
Matrix: GROUNDWATER
Collection Date: 01/21/2013 15:00

Analyses	Certifieation	RL	Qual	Result	Units	DF	Date Analyzed	Bateh
SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Acenaphthene	NELAP	0.00010		**0.00069**	mg/L	1	01/22/2013 12:50	85073
Acenaphthylene	NELAP	0.00010		**0.00019**	mg/L	1	01/22/2013 12:50	85073
Anthracene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Benzo(a)anthracene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Benzo(a)pyrene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Benzo(b)fluoranthene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Benzo(g,h,i)perylene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Benzo(k)fluoranthene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Chrysene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Dibenzo(a,h)anthracene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Fluoranthene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Fluorene	NELAP	0.00010		**0.00133**	mg/L	1	01/22/2013 12:50	85073
Indeno(1,2,3-cd)pyrene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Naphthalene	NELAP	0.00100		**0.0769**	mg/L	10	01/22/2013 11:42	85073
Phenanthrene	NELAP	0.00010		**0.00211**	mg/L	1	01/22/2013 12:50	85073
Pyrene	NELAP	0.00010		**ND**	mg/L	1	01/22/2013 12:50	85073
Surr: 2-Fluorobiphenyl		34.3-105		**77.0**	%REC	1	01/22/2013 12:50	85073
Surr: Nitrobenzene-d5		36.4-127		**95.8**	%REC	1	01/22/2013 12:50	85073
Surr: p-Terphenyl-d14		6.05-133		**101.8**	%REC	1	01/22/2013 12:50	85073
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,2,4-Trichlorobenzene	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
1,2-Dichlorobenzene	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
1,3-Dichlorobenzene	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
1,4-Dichlorobenzene	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
2,4,5-Trichlorophenol	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
2,4,6-Trichlorophenol	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
2,4-Dichlorophenol	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
2,4-Dimethylphenol	NELAP	0.010	J	**0.004**	mg/L	1	01/22/2013 12:12	85074
2,4-Dinitrophenol	NELAP	0.014		**ND**	mg/L	1	01/22/2013 12:12	85074
2,4-Dinitrotoluene	NELAP	0.002		**ND**	mg/L	1	01/22/2013 12:12	85074
2,6-Dinitrotoluene	NELAP	0.001		**ND**	mg/L	1	01/22/2013 12:12	85074
2-Chloronaphthalene	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
2-Chlorophenol	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
2-Methoxy-4-methylphenol		0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
2-Methylnaphthalene	NELAP	0.010		**0.042**	mg/L	1	01/22/2013 12:12	85074
2-Nitroaniline	NELAP	0.021		**ND**	mg/L	1	01/22/2013 12:12	85074
2-Nitrophenol	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
3,3'-Dichlorobenzidine	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
3-Nitroaniline	NELAP	0.002		**ND**	mg/L	1	01/22/2013 12:12	85074
4,6-Dinitro-2-methylphenol	NELAP	0.004		**ND**	mg/L	1	01/22/2013 12:12	85074
4-Bromophenyl phenyl ether	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
4-Chloro-3-methylphenol	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
4-Chloroaniline	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
4-Chlorophenyl phenyl ether	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
4-Nitroaniline	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
4-Nitrophenol	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
Aniline	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074

Client: URS Corporation | **Work Order:** 13010910

Client Project: Roxana Quarterly GW/21562850.03001 | **Report Date:** 22-Jan-13

Lab ID: 13010910-002 | **Client Sample ID:** P55-ROX-012113

Matrix: GROUNDWATER | **Collection Date:** 01/21/2013 15:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Azobenzene		0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Benzidine	NELAP	0.040		**ND**	mg/L	1	01/22/2013 12:12	85074
Benzoic acid	NELAP	0.050		**ND**	mg/L	1	01/22/2013 12:12	85074
Benzyl alcohol	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
Bis(2-chloroethoxy)methane	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Bis(2-chloroethyl)ether	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Bis(2-chloroisopropyl)ether	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Bis(2-ethylhexyl)phthalate	NELAP	0.006		**ND**	mg/L	1	01/22/2013 12:12	85074
Butyl benzyl phthalate	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Carbazole	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
Dibenzofuran	NELAP	0.010	J	**0.001**	mg/L	1	01/22/2013 12:12	85074
Diethyl phthalate	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Dimethyl phthalate	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Di-n-butyl phthalate	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Di-n-octyl phthalate	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Hexachlorobenzene	NELAP	0.002		**ND**	mg/L	1	01/22/2013 12:12	85074
Hexachlorobutadiene	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Hexachlorocyclopentadiene	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
Hexachloroethane	NELAP	0.007		**ND**	mg/L	1	01/22/2013 12:12	85074
Isophorone	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
m,p-Cresol	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Nitrobenzene	NELAP	0.004		**ND**	mg/L	1	01/22/2013 12:12	85074
N-Nitrosodimethylamine	NELAP	0.020		**ND**	mg/L	1	01/22/2013 12:12	85074
N-Nitroso-di-n-propylamine	NELAP	0.002		**ND**	mg/L	1	01/22/2013 12:12	85074
N-Nitrosodiphenylamine	NELAP	0.003		**ND**	mg/L	1	01/22/2013 12:12	85074
o-Cresol	NELAP	0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Pentachlorophenol	NELAP	0.004		**ND**	mg/L	1	01/22/2013 12:12	85074
Phenol	NELAP	0.005	J	**0.004**	mg/L	1	01/22/2013 12:12	85074
Pyridine	NELAP	0.010	UJ	**ND**	mg/L	1	01/22/2013 12:12	85074
Quinoline		0.005		**ND**	mg/L	1	01/22/2013 12:12	85074
1,2-Diphenylhydrazine		0.010		**ND**	mg/L	1	01/22/2013 12:12	85074
Surr: 2,4,6-Tribromophenol		21.9-140		**98.0**	%REC	1	01/22/2013 12:12	85074
Surr: 2-Fluorobiphenyl		43.7-103		**78.8**	%REC	1	01/22/2013 12:12	85074
Surr: 2-Fluorophenol		19.4-65.2		**53.3**	%REC	1	01/22/2013 12:12	85074
Surr: Nitrobenzene-d5		48.9-102		**93.7**	%REC	1	01/22/2013 12:12	85074
Surr: Phenol-d5		12.1-40.3		**34.7**	%REC	1	01/22/2013 12:12	85074
Surr: p-Terphenyl-d14		14.2-109		**94.1**	%REC	1	01/22/2013 12:12	85074

RPD for LCS/LCSD was outside of QC limit.

Results have less certainty for Pentachlorophenol and 4,6-Dinitro-2-methylphenol - Client Requested Quantitation Limit is below the calibration range.

Allowable Marginal Exceedance of Pyridine in the LCSD verified per 2009 TNI Standard (Volume 1, Module 4, section 1.7.4.2).

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
1,1,1-Trichloroethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
1,1,2,2-Tetrachloroethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
1,1,2-Trichloro-1,2,2-trifluoroethane		200		**ND**	µg/L	10	01/21/2013 19:35	85086
1,1,2-Trichloroethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
1,1-Dichloro-2-propanone		500		**ND**	µg/L	10	01/21/2013 19:35	85086

Client: URS Corporation | **Work Order:** 13010910

Client Project: Roxana Quarterly GW/21562850.03001 | **Report Date:** 22-Jan-13

Lab ID: 13010910-002 | **Client Sample ID:** P55-ROX-012113

Matrix: GROUNDWATER | **Collection Date:** 01/21/2013 15:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1-Dichloroethane	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,1-Dichloroethene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,1-Dichloropropene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2,3-Trichlorobenzene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2,3-Trichloropropane	NELAP	10.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2,3-Trimethylbenzene		50.0		183	µg/L	10	01/21/2013 19:35	85086
1,2,4-Trichlorobenzene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2,4-Trimethylbenzene	NELAP	50.0	J	39	µg/L	10	01/21/2013 19:35	85086
1,2-Dibromo-3-chloropropane	NELAP	10.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2-Dibromoethane	NELAP	10.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2-Dichlorobenzene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2-Dichloroethane	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,2-Dichloropropane	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,3,5-Trimethylbenzene	NELAP	50.0	J	26	µg/L	10	01/21/2013 19:35	85086
1,3-Dichlorobenzene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,3-Dichloropropane	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1,4-Dichlorobenzene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
1-Chlorobutane	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
2,2-Dichloropropane	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
2-Butanone	NELAP	250		ND	µg/L	10	01/21/2013 19:35	85086
2-Chloroethyl vinyl ether	NELAP	200		ND	µg/L	10	01/21/2013 19:35	85086
2-Chlorotoluene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
2-Hexanone	NELAP	250		ND	µg/L	10	01/21/2013 19:35	85086
2-Nitropropane	NELAP	500		ND	µg/L	10	01/21/2013 19:35	85086
4-Chlorotoluene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
4-Methyl-2-pentanone	NELAP	250		ND	µg/L	10	01/21/2013 19:35	85086
Acetone	NELAP	250		ND	µg/L	10	01/21/2013 19:35	85086
Acetonitrile	NELAP	500		ND	µg/L	10	01/21/2013 19:35	85086
Acrolein	NELAP	100		ND	µg/L	10	01/21/2013 19:35	85086
Acrylonitrile	NELAP	10.0		ND	µg/L	10	01/21/2013 19:35	85086
Allyl chloride	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
Benzene	NELAP	20.0		571	µg/L	10	01/21/2013 19:35	85086
Bromobenzene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
Bromochloromethane	NELAP	10.0		ND	µg/L	10	01/21/2013 19:35	85086
Bromodichloromethane	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
Bromoform	NELAP	10.0		ND	µg/L	10	01/21/2013 19:35	85086
Bromomethane	NELAP	98.0		ND	µg/L	10	01/21/2013 19:35	85086
Carbon disulfide	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
Carbon tetrachloride	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
Chlorobenzene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
Chloroethane	NELAP	100		ND	µg/L	10	01/21/2013 19:35	85086
Chloroform	NELAP	10.0		ND	µg/L	10	01/21/2013 19:35	85086
Chloromethane	NELAP	100		ND	µg/L	10	01/21/2013 19:35	85086
Chloroprene	NELAP	200		ND	µg/L	10	01/21/2013 19:35	85086
cis-1,2-Dichloroethene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
cis-1,3-Dichloropropene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086
cis-1,4-Dichloro-2-butene	NELAP	50.0		ND	µg/L	10	01/21/2013 19:35	85086

Client: URS Corporation
Work Order: 13010910
Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13
Lab ID: 13010910-002
Client Sample ID: P55-ROX-012113
Matrix: GROUNDWATER
Collection Date: 01/21/2013 15:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Cyclohexanone		500		**ND**	µg/L	10	01/21/2013 19:35	85086
Dibromochloromethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Dibromomethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Dichlorodifluoromethane	NELAP	100		**ND**	µg/L	10	01/21/2013 19:35	85086
Ethyl acetate	NELAP	100		**ND**	µg/L	10	01/21/2013 19:35	85086
Ethyl ether	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Ethyl methacrylate	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Ethylbenzene	NELAP	50.0		**316**	µg/L	10	01/21/2013 19:35	85086
Hexachlorobutadiene	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Hexachloroethane	NELAP	100		**ND**	µg/L	10	01/21/2013 19:35	85086
Iodomethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Isopropylbenzene	NELAP	50.0		**67.8**	µg/L	10	01/21/2013 19:35	85086
m,p-Xylenes	NELAP	50.0		**279**	µg/L	10	01/21/2013 19:35	85086
Methacrylonitrile	NELAP	100		**ND**	µg/L	10	01/21/2013 19:35	85086
Methyl Methacrylate	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Methyl tert-butyl ether	NELAP	20.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Methylacrylate		100		**ND**	µg/L	10	01/21/2013 19:35	85086
Methylene chloride	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Naphthalene	NELAP	100	J	**79**	µg/L	10	01/21/2013 19:35	85086
n-Butyl acetate		250		**ND**	µg/L	10	01/21/2013 19:35	85086
n-Butylbenzene	NELAP	50.0		**53.3**	µg/L	10	01/21/2013 19:35	85086
n-Heptane		200		**ND**	µg/L	10	01/21/2013 19:35	85086
n-Hexane		200		**276**	µg/L	10	01/21/2013 19:35	85086
Nitrobenzene	NELAP	500		**ND**	µg/L	10	01/21/2013 19:35	85086
n-Propylbenzene	NELAP	50.0		**140**	µg/L	10	01/21/2013 19:35	85086
o-Xylene	NELAP	50.0		**347**	µg/L	10	01/21/2013 19:35	85086
Pentachloroethane	NELAP	200		**ND**	µg/L	10	01/21/2013 19:35	85086
p-Isopropyltoluene	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Propionitrile	NELAP	500		**ND**	µg/L	10	01/21/2013 19:35	85086
sec-Butylbenzene	NELAP	50.0	J	**11**	µg/L	10	01/21/2013 19:35	85086
Styrene	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
tert-Butylbenzene	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Tetrachloroethene	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Tetrahydrofuran	NELAP	200		**ND**	µg/L	10	01/21/2013 19:35	85086
Toluene	NELAP	50.0		**189**	µg/L	10	01/21/2013 19:35	85086
trans-1,2-Dichloroethene	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
trans-1,3-Dichloropropene	NELAP	10.0		**ND**	µg/L	10	01/21/2013 19:35	85086
trans-1,4-Dichloro-2-butene	NELAP	100		**ND**	µg/L	10	01/21/2013 19:35	85086
Trichloroethene	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Trichlorofluoromethane	NELAP	50.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Vinyl acetate	NELAP	100		**ND**	µg/L	10	01/21/2013 19:35	85086
Vinyl chloride	NELAP	20.0		**ND**	µg/L	10	01/21/2013 19:35	85086
Surr: 1,2-Dichloroethane-d4		74.7-129		**99.4**	%REC	10	01/21/2013 19:35	85086
Surr: 4-Bromofluorobenzene		86-119		**99.8**	%REC	10	01/21/2013 19:35	85086
Surr: Dibromofluoromethane		81.7-123		**99.4**	%REC	10	01/21/2013 19:35	85086
Surr: Toluene-d8		84.3-114		**99.7**	%REC	10	01/21/2013 19:35	85086

Elevated reporting limit due to high levels of target and/or non-target analytes.

Client: URS Corporation | **Work Order:** 13010910

Client Project: Roxana Quarterly GW/21562850.03001 | **Report Date:** 22-Jan-13

Lab ID: 13010910-003 | **Client Sample ID:** TB-ROX-012113HCL

Matrix: TRIP BLANK | **Collection Date:** 01/21/2013 0:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1,1-Trichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1,2,2-Tetrachloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1,2-Trichloro-1,2,2-trifluoroethane		20.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1,2-Trichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1-Dichloro-2-propanone		50.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1-Dichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1-Dichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,1-Dichloropropene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2,3-Trichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2,3-Trichloropropane	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2,3-Trimethylbenzene		5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2,4-Trichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2,4-Trimethylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2-Dibromo-3-chloropropane	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2-Dibromoethane	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2-Dichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2-Dichloroethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,2-Dichloropropane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,3,5-Trimethylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,3-Dichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,3-Dichloropropane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1,4-Dichlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
2,2-Dichloropropane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
2-Butanone	NELAP	25.0		ND	µg/L	1	01/21/2013 17:46	85086
2-Chloroethyl vinyl ether	NELAP	20.0		ND	µg/L	1	01/21/2013 17:46	85086
2-Chlorotoluene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
2-Hexanone	NELAP	25.0		ND	µg/L	1	01/21/2013 17:46	85086
2-Nitropropane	NELAP	50.0		ND	µg/L	1	01/21/2013 17:46	85086
4-Chlorotoluene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
4-Methyl-2-pentanone	NELAP	25.0		ND	µg/L	1	01/21/2013 17:46	85086
Acetone	NELAP	25.0		ND	µg/L	1	01/21/2013 17:46	85086
Acetonitrile	NELAP	50.0		ND	µg/L	1	01/21/2013 17:46	85086
Acrolein	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
Acrylonitrile	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
Allyl chloride	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Benzene	NELAP	2.0		ND	µg/L	1	01/21/2013 17:46	85086
Bromobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Bromochloromethane	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
Bromodichloromethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Bromoform	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
Bromomethane	NELAP	9.8		ND	µg/L	1	01/21/2013 17:46	85086
Carbon disulfide	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Carbon tetrachloride	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Chlorobenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Chloroethane	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086

Client: URS Corporation
Work Order: 13010910
Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13
Lab ID: 13010910-003
Client Sample ID: TB-ROX-012113HCL
Matrix: TRIP BLANK
Collection Date: 01/21/2013 0:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Chloroform	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
Chloromethane	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
Chloroprene	NELAP	20.0		ND	µg/L	1	01/21/2013 17:46	85086
cis-1,2-Dichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
cis-1,3-Dichloropropene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
cis-1,4-Dichloro-2-butene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Cyclohexanone		50.0		ND	µg/L	1	01/21/2013 17:46	85086
Dibromochloromethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Dibromomethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Dichlorodifluoromethane	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
Ethyl acetate	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
Ethyl ether	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Ethylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Hexachloroethane	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
Iodomethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Isopropylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
m,p-Xylenes	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Methacrylonitrile	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	01/21/2013 17:46	85086
Methylacrylate		10.0		ND	µg/L	1	01/21/2013 17:46	85086
Methylene chloride	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Naphthalene	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
n-Butyl acetate		25.0		ND	µg/L	1	01/21/2013 17:46	85086
n-Butylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
n-Heptane		20.0		ND	µg/L	1	01/21/2013 17:46	85086
n-Hexane		20.0		ND	µg/L	1	01/21/2013 17:46	85086
Nitrobenzene	NELAP	50.0		ND	µg/L	1	01/21/2013 17:46	85086
n-Propylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
o-Xylene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Pentachloroethane	NELAP	20.0		ND	µg/L	1	01/21/2013 17:46	85086
p-Isopropyltoluene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Propionitrile	NELAP	50.0		ND	µg/L	1	01/21/2013 17:46	85086
sec-Butylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Styrene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
tert-Butylbenzene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Tetrachloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Tetrahydrofuran	NELAP	20.0		ND	µg/L	1	01/21/2013 17:46	85086
Toluene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
trans-1,2-Dichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
trans-1,3-Dichloropropene	NELAP	1.0		ND	µg/L	1	01/21/2013 17:46	85086
trans-1,4-Dichloro-2-butene	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086
Trichloroethene	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	01/21/2013 17:46	85086
Vinyl acetate	NELAP	10.0		ND	µg/L	1	01/21/2013 17:46	85086

Client: URS Corporation
Work Order: 13010910
Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13
Lab ID: 13010910-003
Client Sample ID: TB-ROX-012113HCL
Matrix: TRIP BLANK
Collection Date: 01/21/2013 0:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Vinyl chloride	NELAP	2.0		**ND**	µg/L	1	01/21/2013 17:46	85086
Xylenes, Total	NELAP	5.0		**ND**	µg/L	1	01/21/2013 17:46	85086
Surr: 1,2-Dichloroethane-d4		74.7-129		**98.5**	%REC	1	01/21/2013 17:46	85086
Surr: 4-Bromofluorobenzene		86-119		**100.8**	%REC	1	01/21/2013 17:46	85086
Surr: Dibromofluoromethane		81.7-123		**99.5**	%REC	1	01/21/2013 17:46	85086
Surr: Toluene-d8		84.3-114		**98.1**	%REC	1	01/21/2013 17:46	85086

Client: URS Corporation
Client Project: Roxana Quarterly GW/21562850.03001

Work Order: 13010910
Report Date: 22-Jan-13

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
13010910-001	MW10-ROX-012113	Groundwater	3	01/21/2013 15:20
13010910-002	P55-ROX-012113	Groundwater	3	01/21/2013 15:00
13010910-003	TB-ROX-012113HCL	Trip Blank	1	01/21/2013 0:00
13010910-004	TB-ROX-012113ST	Trip Blank	1	01/21/2013 0:00

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85073 **SampType:** MBLK Units mg/L

SampID: MB-85073

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene	0.00010		ND						01/22/2013
Acenaphthylene	0.00010		ND						01/22/2013
Anthracene	0.00010		ND						01/22/2013
Benzo(a)anthracene	0.00010		ND						01/22/2013
Benzo(a)pyrene	0.00010		ND						01/22/2013
Benzo(b)fluoranthene	0.00010		ND						01/22/2013
Benzo(g,h,i)perylene	0.00010		ND						01/22/2013
Benzo(k)fluoranthene	0.00010		ND						01/22/2013
Chrysene	0.00010		ND						01/22/2013
Dibenzo(a,h)anthracene	0.00010		ND						01/22/2013
Fluoranthene	0.00010		ND						01/22/2013
Fluorene	0.00010		ND						01/22/2013
Indeno(1,2,3-cd)pyrene	0.00010		ND						01/22/2013
Naphthalene	0.00010		ND						01/22/2013
Phenanthrene	0.00010		ND						01/22/2013
Pyrene	0.00010		ND						01/22/2013
Surr: 2-Fluorobiphenyl			0.00770	0.0100		77.0	45.4	97.6	01/22/2013
Surr: Nitrobenzene-d5			0.00830	0.0100		83.0	45.2	108	01/22/2013
Surr: p-Terphenyl-d14			0.00941	0.0100		94.1	46	127	01/22/2013

Batch 85073 **SampType:** LCS Units mg/L

SampID: LCS-85073

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Acenaphthene	0.00010		0.00425	0.00500	0	85.0	50.1	103	01/22/2013
Acenaphthylene	0.00010		0.00426	0.00500	0	85.2	53.3	122	01/22/2013
Anthracene	0.00010		0.00415	0.00500	0	82.9	57.4	110	01/22/2013
Benzo(a)anthracene	0.00010		0.00446	0.00500	0	89.2	59.1	112	01/22/2013
Benzo(a)pyrene	0.00010		0.00475	0.00500	0	95.0	55.4	125	01/22/2013
Benzo(b)fluoranthene	0.00010		0.00456	0.00500	0	91.2	59.3	127	01/22/2013
Benzo(g,h,i)perylene	0.00010		0.00473	0.00500	0	94.6	58.4	125	01/22/2013
Benzo(k)fluoranthene	0.00010		0.00429	0.00500	0	85.7	61.5	125	01/22/2013
Chrysene	0.00010		0.00478	0.00500	0	95.5	58.7	118	01/22/2013
Dibenzo(a,h)anthracene	0.00010		0.00487	0.00500	0	97.3	59.3	126	01/22/2013
Fluoranthene	0.00010		0.00447	0.00500	0	89.4	60.1	117	01/22/2013
Fluorene	0.00010		0.00459	0.00500	0	91.8	54.1	110	01/22/2013
Indeno(1,2,3-cd)pyrene	0.00010		0.00480	0.00500	0	96.0	58.1	123	01/22/2013
Naphthalene	0.00010		0.00426	0.00500	0	85.2	36.3	97.1	01/22/2013
Phenanthrene	0.00010		0.00413	0.00500	0	82.6	55.9	107	01/22/2013
Pyrene	0.00010		0.00436	0.00500	0	87.1	61.4	116	01/22/2013
Surr: 2-Fluorobiphenyl			0.00422	0.00500		84.3	45.4	97.6	01/22/2013
Surr: Nitrobenzene-d5			0.00437	0.00500		87.5	45.2	108	01/22/2013
Surr: p-Terphenyl-d14			0.00512	0.00500		102.4	46	127	01/22/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 3510C, 8270C SIMS, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85073 **SampType:** LCSD Units mg/L RPD Limit 50

SampID: LCSD-85073

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Acenaphthene	0.00010		**0.00457**	0.00500	0	91.4	0.004252	7.21	01/22/2013
Acenaphthylene	0.00010		**0.00440**	0.00500	0	88.0	0.004259	3.30	01/22/2013
Anthracene	0.00010		**0.00435**	0.00500	0	87.1	0.004145	4.92	01/22/2013
Benzo(a)anthracene	0.00010		**0.00455**	0.00500	0	91.0	0.004458	2.02	01/22/2013
Benzo(a)pyrene	0.00010		**0.00481**	0.00500	0	96.2	0.004750	1.23	01/22/2013
Benzo(b)fluoranthene	0.00010		**0.00470**	0.00500	0	94.0	0.004560	3.07	01/22/2013
Benzo(g,h,i)perylene	0.00010		**0.00500**	0.00500	0	100.1	0.004728	5.67	01/22/2013
Benzo(k)fluoranthene	0.00010		**0.00441**	0.00500	0	88.2	0.004286	2.85	01/22/2013
Chrysene	0.00010		**0.00501**	0.00500	0	100.2	0.004776	4.80	01/22/2013
Dibenzo(a,h)anthracene	0.00010		**0.00508**	0.00500	0	101.5	0.004866	4.24	01/22/2013
Fluoranthene	0.00010		**0.00460**	0.00500	0	92.1	0.004470	2.98	01/22/2013
Fluorene	0.00010		**0.00470**	0.00500	0	94.1	0.004590	2.47	01/22/2013
Indeno(1,2,3-cd)pyrene	0.00010		**0.00498**	0.00500	0	99.7	0.004799	3.78	01/22/2013
Naphthalene	0.00010		**0.00444**	0.00500	0	88.7	0.004259	4.05	01/22/2013
Phenanthrane	0.00010		**0.00442**	0.00500	0	88.3	0.004132	6.67	01/22/2013
Pyrene	0.00010		**0.00463**	0.00500	0	92.5	0.004357	5.99	01/22/2013
Surr: 2-Fluorobiphenyl			**0.00422**	0.00500		84.4			01/22/2013
Surr: Nitrobenzene-d5			**0.00441**	0.00500		88.2			01/22/2013
Surr: p-Terphenyl-d14			**0.00523**	0.00500		104.6			01/22/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85074 **SampType:** MBLK Units mg/L

SampID: MB-85074

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,2,4-Trichlorobenzene	0.010		ND						01/22/2013
1,2-Dichlorobenzene	0.010		ND						01/22/2013
1,3-Dichlorobenzene	0.010		ND						01/22/2013
1,4-Dichlorobenzene	0.010		ND						01/22/2013
2,4,5-Trichlorophenol	0.010		ND						01/22/2013
2,4,6-Trichlorophenol	0.010		ND						01/22/2013
2,4-Dichlorophenol	0.010		ND						01/22/2013
2,4-Dimethylphenol	0.010		ND						01/22/2013
2,4-Dinitrophenol	0.020		ND						01/22/2013
2,4-Dinitrotoluene	0.010		ND						01/22/2013
2,6-Dinitrotoluene	0.010		ND						01/22/2013
2-Chloronaphthalene	0.010		ND						01/22/2013
2-Chlorophenol	0.010		ND						01/22/2013
2-Methoxy-4-methylphenol	0.010		ND						01/22/2013
2-Methylnaphthalene	0.010		ND						01/22/2013
2-Nitroaniline	0.040		ND						01/22/2013
2-Nitrophenol	0.020		ND						01/22/2013
3,3'-Dichlorobenzidine	0.010		ND						01/22/2013
3-Nitroaniline	0.040		ND						01/22/2013
4,6-Dinitro-2-methylphenol	0.020		ND						01/22/2013
4-Bromophenyl phenyl ether	0.010		ND						01/22/2013
4-Chloro-3-methylphenol	0.020		ND						01/22/2013
4-Chloroaniline	0.020		ND						01/22/2013
4-Chlorophenyl phenyl ether	0.010		ND						01/22/2013
4-Nitroaniline	0.020		ND						01/22/2013
4-Nitrophenol	0.020		ND						01/22/2013
Aniline	0.020		ND						01/22/2013
Azobenzene	0.010		ND						01/22/2013
Benzidine	0.040		ND						01/22/2013
Benzoic acid	0.050		ND						01/22/2013
Benzyl alcohol	0.020		ND						01/22/2013
Bis(2-chloroethoxy)methane	0.010		ND						01/22/2013
Bis(2-chloroethyl)ether	0.010		ND						01/22/2013
Bis(2-chloroisopropyl)ether	0.010		ND						01/22/2013
Bis(2-ethylhexyl)phthalate	0.006		ND						01/22/2013
Butyl benzyl phthalate	0.010		ND						01/22/2013
Carbazole	0.020		ND						01/22/2013
Dibenzofuran	0.010		ND						01/22/2013
Diethyl phthalate	0.010		ND						01/22/2013
Dimethyl phthalate	0.010		ND						01/22/2013
Di-n-butyl phthalate	0.010		ND						01/22/2013
Di-n-octyl phthalate	0.010		ND						01/22/2013
Hexachlorobenzene	0.010		ND						01/22/2013
Hexachlorobutadiene	0.010		ND						01/22/2013
Hexachlorocyclopentadiene	0.020		ND						01/22/2013
Hexachloroethane	0.010		ND						01/22/2013
Isophorone	0.010		ND						01/22/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85074 **SampType:** MBLK Units mg/L

SampID: MB-85074

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
m,p-Cresol	0.010		ND						01/22/2013
Nitrobenzene	0.010		ND						01/22/2013
N-Nitrosodimethylamine	0.020		ND						01/22/2013
N-Nitroso-di-n-propylamine	0.010		ND						01/22/2013
N-Nitrosodiphenylamine	0.010		ND						01/22/2013
o-Cresol	0.010		ND						01/22/2013
Pentachlorophenol	0.020		ND						01/22/2013
Phenol	0.005		ND						01/22/2013
Pyridine	0.020		ND						01/22/2013
Quinoline	0.005		ND						01/22/2013
1,2-Diphenylhydrazine	0.010		ND						01/22/2013
Surr: 2,4,6-Tribromophenol			**0.049**	0.050		98.6	52.6	124	01/22/2013
Surr: 2-Fluorobiphenyl			**0.021**	0.025		85.5	57.8	101	01/22/2013
Surr: 2-Fluorophenol			**0.031**	0.050		62.7	34.6	64.5	01/22/2013
Surr: Nitrobenzene-d5			**0.026**	0.025		104.0	47.5	112	01/22/2013
Surr: Phenol-d5			**0.020**	0.050		40.9	19.4	43.4	01/22/2013
Surr: p-Terphenyl-d14			**0.027**	0.025		106.4	46.3	115	01/22/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85074 **SampType:** LCS Units mg/L

SampID: LCS-85074

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,2,4-Trichlorobenzene	0.010		**0.038**	0.050	0	75.4	45.2	104	01/22/2013
1,4-Dichlorobenzene	0.010		**0.039**	0.050	0	78.6	37.9	89.2	01/22/2013
2,4,5-Trichlorophenol	0.010		**0.092**	0.100	0	92.1	64.1	118	01/22/2013
2,4,6-Trichlorophenol	0.010		**0.091**	0.100	0	91.1	57.9	120	01/22/2013
2,4-Dimethylphenol	0.010		**0.094**	0.100	0	94.4	52.9	115	01/22/2013
2,4-Dinitrophenol	0.020		**0.085**	0.100	0	85.1	38.4	133	01/22/2013
2,4-Dinitrotoluene	0.010		**0.046**	0.050	0	92.5	58.7	120	01/22/2013
2-Chlorophenol	0.010		**0.088**	0.100	0	87.9	52.2	99.7	01/22/2013
4-Chloro-3-methylphenol	0.020		**0.083**	0.100	0	82.8	60.7	113	01/22/2013
4-Nitrophenol	0.020		**0.042**	0.100	0	41.6	20.7	53.6	01/22/2013
Bis(2-ethylhexyl)phthalate	0.006		**0.051**	0.050	0	102.8	57.7	125	01/22/2013
Diethyl phthalate	0.010		**0.094**	0.100	0	93.5	60.2	116	01/22/2013
Dimethyl phthalate	0.010		**0.102**	0.100	0	102.5	58.5	113	01/22/2013
Di-n-butyl phthalate	0.010		**0.047**	0.050	0	94.7	57	124	01/22/2013
Hexachlorobenzene	0.010		**0.094**	0.100	0	94.3	60.2	118	01/22/2013
Hexachlorobutadiene	0.010		**0.076**	0.100	0	76.0	36.9	99.5	01/22/2013
Hexachloroethane	0.010		**0.086**	0.100	0	85.7	31.8	92.6	01/22/2013
m,p-Cresol	0.010		**0.036**	0.050	0	72.9	45.3	88.8	01/22/2013
Nitrobenzene	0.010		**0.083**	0.100	0	82.5	54.1	102	01/22/2013
N-Nitroso-di-n-propylamine	0.010		**0.053**	0.050	0	105.6	55.3	114	01/22/2013
o-Cresol	0.010		**0.041**	0.050	0	81.4	47.6	98.3	01/22/2013
Pentachlorophenol	0.020		**0.095**	0.100	0	94.8	53.1	133	01/22/2013
Phenol	0.005		**0.035**	0.100	0	35.3	19.5	45.4	01/22/2013
Pyridine	0.020		**0.053**	0.100	0	53.3	21.6	66.2	01/22/2013
Quinoline	0.005		**0.046**	0.050	0	91.5	60.2	113	01/22/2013
Surr: 2,4,6-Tribromophenol			**0.051**	0.050		101.0	52.6	124	01/22/2013
Surr: 2-Fluorobiphenyl			**0.020**	0.025		81.7	57.8	101	01/22/2013
Surr: 2-Fluorophenol			**0.028**	0.050		56.7	34.6	64.5	01/22/2013
Surr: Nitrobenzene-d5			**0.023**	0.025		91.7	47.5	112	01/22/2013
Surr: Phenol-d5			**0.018**	0.050		36.7	19.4	43.4	01/22/2013
Surr: p-Terphenyl-d14			**0.026**	0.025		102.2	46.3	115	01/22/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 3510C, 8270C, SEMI-VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85074 **SampType:** LCSD Units **mg/L** RPD Limit **40**

SampID: LCSD-85074

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,2,4-Trichlorobenzene	0.010		**0.041**	0.050	0	82.5	0.03772	8.99	01/22/2013
1,4-Dichlorobenzene	0.010		**0.039**	0.050	0	78.8	0.03928	0.27	01/22/2013
2,4,5-Trichlorophenol	0.010		**0.100**	0.100	0	99.5	0.09206	7.77	01/22/2013
2,4,6-Trichlorophenol	0.010		**0.090**	0.100	0	90.1	0.09109	1.11	01/22/2013
2,4-Dimethylphenol	0.010		**0.091**	0.100	0	91.2	0.09436	3.45	01/22/2013
2,4-Dinitrophenol	0.020		**0.098**	0.100	0	98.4	0.08510	14.51	01/22/2013
2,4-Dinitrotoluene	0.010		**0.049**	0.050	0	97.4	0.04626	5.15	01/22/2013
2-Chlorophenol	0.010		**0.089**	0.100	0	89.2	0.08794	1.37	01/22/2013
4-Chloro-3-methylphenol	0.020		**0.095**	0.100	0	95.2	0.08280	13.90	01/22/2013
4-Nitrophenol	0.020		**0.043**	0.100	0	43.4	0.04163	4.11	01/22/2013
Bis(2-ethylhexyl)phthalate	0.006		**0.051**	0.050	0	102.7	0.05140	0.07	01/22/2013
Diethyl phthalate	0.010		**0.108**	0.100	0	107.8	0.09354	14.17	01/22/2013
Dimethyl phthalate	0.010		**0.096**	0.100	0	96.0	0.1025	6.57	01/22/2013
Di-n-butyl phthalate	0.010		**0.050**	0.050	0	99.9	0.04736	5.33	01/22/2013
Hexachlorobenzene	0.010		**0.094**	0.100	0	93.6	0.09428	0.75	01/22/2013
Hexachlorobutadiene	0.010		**0.077**	0.100	0	76.6	0.07599	0.85	01/22/2013
Hexachloroethane	0.010		**0.087**	0.100	0	86.9	0.08570	1.41	01/22/2013
m,p-Cresol	0.010		**0.040**	0.050	0	79.6	0.03647	8.71	01/22/2013
Nitrobenzene	0.010		**0.096**	0.100	0	95.8	0.08251	14.96	01/22/2013
N-Nitroso-di-n-propylamine	0.010		**0.055**	0.050	0	110.1	0.05282	4.10	01/22/2013
o-Cresol	0.010		**0.042**	0.050	0	83.6	0.04070	2.71	01/22/2013
Pentachlorophenol	0.020		**0.097**	0.100	0	96.9	0.09484	2.11	01/22/2013
Phenol	0.005		**0.037**	0.100	0	37.1	0.03530	5.10	01/22/2013
Pyridine	0.020	SR	**0.020**	0.100	0	20.1	0.05332	90.63	01/22/2013
Quinoline	0.005		**0.046**	0.050	0	92.9	0.04576	1.46	01/22/2013
Surr: 2,4,6-Tribromophenol			**0.052**	0.050		103.3			01/22/2013
Surr: 2-Fluorobiphenyl			**0.021**	0.025		82.7			01/22/2013
Surr: 2-Fluorophenol			**0.028**	0.050		55.8			01/22/2013
Surr: Nitrobenzene-d5			**0.023**	0.025		92.7			01/22/2013
Surr: Phenol-d5			**0.018**	0.050		36.4			01/22/2013
Surr: p-Terphenyl-d14			**0.025**	0.025		98.3			01/22/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** MBLK Units µg/L

SampID: MBLK-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	5.0		ND						01/21/2013
1,1,1-Trichloroethane	5.0		ND						01/21/2013
1,1,2,2-Tetrachloroethane	5.0		ND						01/21/2013
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0		ND						01/21/2013
1,1,2-Trichloroethane	5.0		ND						01/21/2013
1,1-Dichloro-2-propanone	50.0		ND						01/21/2013
1,1-Dichloroethane	5.0		ND						01/21/2013
1,1-Dichloroethene	5.0		ND						01/21/2013
1,1-Dichloropropene	5.0		ND						01/21/2013
1,2,3-Trichlorobenzene	5.0		ND						01/21/2013
1,2,3-Trichloropropane	5.0		ND						01/21/2013
1,2,3-Trimethylbenzene	5.0		ND						01/21/2013
1,2,4-Trichlorobenzene	5.0		ND						01/21/2013
1,2,4-Trimethylbenzene	5.0		ND						01/21/2013
1,2-Dibromo-3-chloropropane	5.0		ND						01/21/2013
1,2-Dibromoethane	5.0		ND						01/21/2013
1,2-Dichlorobenzene	5.0		ND						01/21/2013
1,2-Dichloroethane	5.0		ND						01/21/2013
1,2-Dichloropropane	5.0		ND						01/21/2013
1,3,5-Trimethylbenzene	5.0		ND						01/21/2013
1,3-Dichlorobenzene	5.0		ND						01/21/2013
1,3-Dichloropropane	5.0		ND						01/21/2013
1,4-Dichlorobenzene	5.0		ND						01/21/2013
1-Chlorobutane	5.0		ND						01/21/2013
2,2-Dichloropropane	5.0		ND						01/21/2013
2-Butanone	25.0		ND						01/21/2013
2-Chloroethyl vinyl ether	20.0		ND						01/21/2013
2-Chlorotoluene	5.0		ND						01/21/2013
2-Hexanone	25.0		ND						01/21/2013
2-Nitropropane	50.0		ND						01/21/2013
4-Chlorotoluene	5.0		ND						01/21/2013
4-Methyl-2-pentanone	25.0		ND						01/21/2013
Acetone	25.0		ND						01/21/2013
Acetonitrile	50.0		ND						01/21/2013
Acrolein	100		ND						01/21/2013
Acrylonitrile	5.0		ND						01/21/2013
Allyl chloride	5.0		ND						01/21/2013
Benzene	2.0		ND						01/21/2013
Bromobenzene	5.0		ND						01/21/2013
Bromochloromethane	5.0		ND						01/21/2013
Bromodichloromethane	5.0		ND						01/21/2013
Bromoform	5.0		ND						01/21/2013
Bromomethane	10.0		ND						01/21/2013
Carbon disulfide	5.0		ND						01/21/2013
Carbon tetrachloride	5.0		ND						01/21/2013
Chlorobenzene	5.0		ND						01/21/2013
Chloroethane	10.0		ND						01/21/2013

Client: URS Corporation **Work Order:** 13010910

Client Project: Roxana Quarterly GW/21562850.03001 **Report Date:** 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** MBLK Units µg/L

SampID: MBLK-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloroform	5.0		ND						01/21/2013
Chloromethane	10.0		ND						01/21/2013
Chloroprene	20.0		ND						01/21/2013
cis-1,2-Dichloroethene	5.0		ND						01/21/2013
cis-1,3-Dichloropropene	5.0		ND						01/21/2013
cis-1,4-Dichloro-2-butene	5.0		ND						01/21/2013
Cyclohexanone	50.0		ND						01/21/2013
Dibromochloromethane	5.0		ND						01/21/2013
Dibromomethane	5.0		ND						01/21/2013
Dichlorodifluoromethane	10.0		ND						01/21/2013
Ethyl acetate	10.0		ND						01/21/2013
Ethyl ether	5.0		ND						01/21/2013
Ethyl methacrylate	5.0		ND						01/21/2013
Ethylbenzene	5.0		ND						01/21/2013
Hexachlorobutadiene	5.0		ND						01/21/2013
Hexachloroethane	10.0		ND						01/21/2013
Iodomethane	5.0		ND						01/21/2013
Isopropylbenzene	5.0		ND						01/21/2013
m,p-Xylenes	5.0		ND						01/21/2013
Methacrylonitrile	10.0		ND						01/21/2013
Methyl Methacrylate	5.0		ND						01/21/2013
Methyl tert-butyl ether	2.0		ND						01/21/2013
Methylacrylate	10.0		ND						01/21/2013
Methylene chloride	5.0		ND						01/21/2013
Naphthalene	10.0		ND						01/21/2013
n-Butyl acetate	25.0		ND						01/21/2013
n-Butylbenzene	5.0		ND						01/21/2013
n-Heptane	20.0		ND						01/21/2013
n-Hexane	20.0		ND						01/21/2013
Nitrobenzene	50.0		ND						01/21/2013
n-Propylbenzene	5.0		ND						01/21/2013
o-Xylene	5.0		ND						01/21/2013
Pentachloroethane	20.0		ND						01/21/2013
p-Isopropyltoluene	5.0		ND						01/21/2013
Propionitrile	50.0		ND						01/21/2013
sec-Butylbenzene	5.0		ND						01/21/2013
Styrene	5.0		ND						01/21/2013
tert-Butylbenzene	5.0		ND						01/21/2013
Tetrachloroethene	5.0		ND						01/21/2013
Tetrahydrofuran	20.0		ND						01/21/2013
Toluene	5.0		ND						01/21/2013
trans-1,2-Dichloroethene	5.0		ND						01/21/2013
trans-1,3-Dichloropropene	5.0		ND						01/21/2013
trans-1,4-Dichloro-2-butene	10.0		ND						01/21/2013
Trichloroethene	5.0		ND						01/21/2013
Trichlorofluoromethane	5.0		ND						01/21/2013
Vinyl acetate	10.0		ND						01/21/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** MBLK Units µg/L

SampID: MBLK-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Vinyl chloride	2.0		**ND**						01/21/2013
Xylenes, Total	5.0		**ND**						01/21/2013
Surr: 1,2-Dichloroethane-d4			**49.2**	50.0		98.3	74.7	129	01/21/2013
Surr: 4-Bromofluorobenzene			**49.2**	50.0		98.5	86	119	01/21/2013
Surr: Dibromofluoromethane			**49.7**	50.0		99.4	81.7	123	01/21/2013
Surr: Toluene-d8			**49.3**	50.0		98.7	84.3	114	01/21/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** LCSD Units µg/L RPD Limit 40

SampID: LCSD-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,1,1,2-Tetrachloroethane	5.0		48.4	50.0	0	96.8	47.73	1.39	01/21/2013
1,1,1-Trichloroethane	5.0		51.3	50.0	0	102.6	50.34	1.89	01/21/2013
1,1,2,2-Tetrachloroethane	5.0		46.8	50.0	0	93.5	46.91	0.34	01/21/2013
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0		54.6	50.0	0	109.2	53.12	2.71	01/21/2013
1,1,2-Trichloroethane	5.0		46.8	50.0	0	93.6	47.04	0.53	01/21/2013
1,1-Dichloro-2-propanone	50.0		128	125	0	102.6	135.0	5.10	01/21/2013
1,1-Dichloroethane	5.0		52.1	50.0	0	104.3	51.47	1.27	01/21/2013
1,1-Dichloroethene	5.0		54.0	50.0	0	108.0	52.62	2.63	01/21/2013
1,1-Dichloropropene	5.0		52.6	50.0	0	105.3	51.65	1.90	01/21/2013
1,2,3-Trichlorobenzene	5.0		42.4	50.0	0	84.8	41.27	2.70	01/21/2013
1,2,3-Trichloropropane	5.0		45.2	50.0	0	90.4	45.25	0.09	01/21/2013
1,2,3-Trimethylbenzene	5.0		49.4	50.0	0	98.7	47.96	2.88	01/21/2013
1,2,4-Trichlorobenzene	5.0		43.0	50.0	0	86.0	41.51	3.53	01/21/2013
1,2,4-Trimethylbenzene	5.0		46.6	50.0	0	93.2	45.20	3.03	01/21/2013
1,2-Dibromo-3-chloropropane	5.0		46.4	50.0	0	92.9	48.23	3.78	01/21/2013
1,2-Dibromoethane	5.0		46.9	50.0	0	93.8	47.11	0.45	01/21/2013
1,2-Dichlorobenzene	5.0		46.6	50.0	0	93.2	45.74	1.88	01/21/2013
1,2-Dichloroethane	5.0		48.4	50.0	0	96.8	48.21	0.43	01/21/2013
1,2-Dichloropropane	5.0		52.3	50.0	0	104.6	51.72	1.08	01/21/2013
1,3,5-Trimethylbenzene	5.0		47.6	50.0	0	95.2	45.75	3.98	01/21/2013
1,3-Dichlorobenzene	5.0		46.3	50.0	0	92.6	45.38	2.03	01/21/2013
1,3-Dichloropropane	5.0		48.3	50.0	0	96.5	48.19	0.17	01/21/2013
1,4-Dichlorobenzene	5.0		45.9	50.0	0	91.7	44.56	2.88	01/21/2013
1-Chlorobutane	5.0		51.7	50.0	0	103.4	51.10	1.13	01/21/2013
2,2-Dichloropropane	5.0		52.3	50.0	0	104.6	51.59	1.41	01/21/2013
2-Butanone	25.0		127	125	0	101.9	132.9	4.27	01/21/2013
2-Chloroethyl vinyl ether	20.0		47.8	50.0	0	95.5	48.10	0.69	01/21/2013
2-Chlorotoluene	5.0		47.5	50.0	0	95.0	46.19	2.84	01/21/2013
2-Hexanone	25.0		124	125	0	99.1	132.2	6.56	01/21/2013
2-Nitropropane	50.0		550	500	0	110.0	580.7	5.41	01/21/2013
4-Chlorotoluene	5.0		47.6	50.0	0	95.3	45.86	3.79	01/21/2013
4-Methyl-2-pentanone	25.0		125	125	0	100.2	130.2	3.92	01/21/2013
Acetone	25.0		126	125	0	100.8	135.7	7.47	01/21/2013
Acetonitrile	50.0		551	500	0	110.3	586.0	6.08	01/21/2013
Acrolein	100		433	500	0	86.5	453.8	4.76	01/21/2013
Acrylonitrile	5.0		52.6	50.0	0	105.2	53.44	1.60	01/21/2013
Allyl chloride	5.0		54.2	50.0	0	108.5	52.70	2.90	01/21/2013
Benzene	2.0		50.8	50.0	0	101.6	49.65	2.27	01/21/2013
Bromobenzene	5.0		46.1	50.0	0	92.3	44.81	2.92	01/21/2013
Bromochloromethane	5.0		53.6	50.0	0	107.2	52.55	1.96	01/21/2013
Bromodichloromethane	5.0		50.6	50.0	0	101.3	50.21	0.87	01/21/2013
Bromoform	5.0		51.6	50.0	0	103.2	52.29	1.31	01/21/2013
Bromomethane	10.0		54.2	50.0	0	108.3	54.03	0.26	01/21/2013
Carbon disulfide	5.0		50.0	50.0	0	100.0	48.46	3.13	01/21/2013
Carbon tetrachloride	5.0		53.8	50.0	0	107.6	51.99	3.46	01/21/2013
Chlorobenzene	5.0		46.6	50.0	0	93.2	46.09	1.12	01/21/2013
Chloroethane	10.0		50.3	50.0	0	100.6	49.02	2.62	01/21/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** LCSD Units µg/L RPD Limit 40

SampID: LCSD-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloroform	5.0		**50.0**	50.0	0	100.1	48.86	2.39	01/21/2013
Chloromethane	10.0		**42.7**	50.0	0	85.5	42.85	0.28	01/21/2013
Chloroprene	20.0		**55.0**	50.0	0	109.9	53.89	1.97	01/21/2013
cis-1,2-Dichloroethene	5.0		**50.2**	50.0	0	100.4	48.92	2.54	01/21/2013
cis-1,3-Dichloropropene	5.0		**51.7**	50.0	0	103.3	51.62	0.10	01/21/2013
cis-1,4-Dichloro-2-butene	5.0		**43.6**	50.0	0	87.3	45.38	3.89	01/21/2013
Cyclohexanone	50.0		**519**	500	0	103.7	587.0	12.36	01/21/2013
Dibromochloromethane	5.0		**49.0**	50.0	0	98.0	49.05	0.12	01/21/2013
Dibromomethane	5.0		**50.2**	50.0	0	100.4	49.55	1.30	01/21/2013
Dichlorodifluoromethane	10.0		**46.4**	50.0	0	92.8	44.75	3.66	01/21/2013
Ethyl acetate	10.0		**52.7**	50.0	0	105.5	55.44	4.99	01/21/2013
Ethyl ether	5.0		**49.7**	50.0	0	99.4	49.85	0.26	01/21/2013
Ethyl methacrylate	5.0		**48.2**	50.0	0	96.3	48.99	1.73	01/21/2013
Ethylbenzene	5.0		**47.8**	50.0	0	95.5	47.29	1.01	01/21/2013
Hexachlorobutadiene	5.0		**52.5**	50.0	0	104.9	49.32	6.19	01/21/2013
Hexachloroethane	10.0		**49.4**	50.0	0	98.7	47.88	3.04	01/21/2013
Iodomethane	5.0		**48.7**	50.0	0	97.5	46.36	4.98	01/21/2013
Isopropylbenzene	5.0		**49.7**	50.0	0	99.4	48.99	1.48	01/21/2013
m,p-Xylenes	5.0		**96.0**	100	0	96.0	95.32	0.72	01/21/2013
Methacrylonitrile	10.0		**51.2**	50.0	0	102.4	52.35	2.26	01/21/2013
Methyl Methacrylate	5.0		**50.0**	50.0	0	100.1	51.56	2.99	01/21/2013
Methyl tert-butyl ether	2.0		**48.6**	50.0	0	97.2	47.92	1.43	01/21/2013
Methylacrylate	10.0		**50.5**	50.0	0	100.9	62.21	20.84	01/21/2013
Methylene chloride	5.0		**48.8**	50.0	0	97.6	48.07	1.55	01/21/2013
Naphthalene	10.0		**40.5**	50.0	0	80.9	40.05	1.02	01/21/2013
n-Butyl acetate	25.0		**48.8**	50.0	0	97.6	50.60	3.64	01/21/2013
n-Butylbenzene	5.0		**46.4**	50.0	0	92.7	44.16	4.88	01/21/2013
n-Heptane	20.0		**57.9**	50.0	0	115.9	57.51	0.74	01/21/2013
n-Hexane	20.0		**57.4**	50.0	0	114.9	55.87	2.77	01/21/2013
Nitrobenzene	50.0		**583**	500	0	116.7	633.2	8.19	01/21/2013
n-Propylbenzene	5.0		**48.4**	50.0	0	96.9	46.97	3.10	01/21/2013
o-Xylene	5.0		**48.7**	50.0	0	97.4	48.05	1.38	01/21/2013
Pentachloroethane	20.0		**48.5**	50.0	0	97.0	48.32	0.39	01/21/2013
p-Isopropyltoluene	5.0		**47.9**	50.0	0	95.9	46.27	3.55	01/21/2013
Propionitrile	50.0		**534**	500	0	106.8	570.9	6.68	01/21/2013
sec-Butylbenzene	5.0		**49.1**	50.0	0	98.2	47.43	3.42	01/21/2013
Styrene	5.0		**48.2**	50.0	0	96.3	47.85	0.62	01/21/2013
tert-Butylbenzene	5.0		**48.6**	50.0	0	97.2	46.55	4.29	01/21/2013
Tetrachloroethene	5.0		**47.2**	50.0	0	94.4	46.82	0.79	01/21/2013
Tetrahydrofuran	20.0		**49.1**	50.0	0	98.2	51.97	5.70	01/21/2013
Toluene	5.0		**47.2**	50.0	0	94.5	46.93	0.68	01/21/2013
trans-1,2-Dichloroethene	5.0		**53.7**	50.0	0	107.4	52.57	2.13	01/21/2013
trans-1,3-Dichloropropene	5.0		**48.5**	50.0	0	96.9	48.61	0.31	01/21/2013
trans-1,4-Dichloro-2-butene	10.0		**43.4**	50.0	0	86.8	44.87	3.28	01/21/2013
Trichloroethene	5.0		**51.3**	50.0	0	102.6	50.32	1.89	01/21/2013
Trichlorofluoromethane	5.0		**51.3**	50.0	0	102.6	50.33	1.93	01/21/2013
Vinyl acetate	10.0		**55.2**	50.0	0	110.5	57.91	4.72	01/21/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** LCSD Units µg/L RPD Limit 40

SampID: LCSD-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Vinyl chloride	2.0		**49.1**	50.0	0	98.3	46.59	5.33	01/21/2013
Xylenes, Total	5.0		**145**	150	0	96.5	143.4	0.94	01/21/2013
Surr: 1,2-Dichloroethane-d4			**50.4**	50.0		100.8			01/21/2013
Surr: 4-Bromofluorobenzene			**49.5**	50.0		98.9			01/21/2013
Surr: Dibromofluoromethane			**50.2**	50.0		100.3			01/21/2013
Surr: Toluene-d8			**49.1**	50.0		98.2			01/21/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** LCS Units µg/L

SampID: LCS-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	5.0		**47.7**	50.0	0	95.5	82.5	112	01/21/2013
1,1,1-Trichloroethane	5.0		**50.3**	50.0	0	100.7	74.2	118	01/21/2013
1,1,2,2-Tetrachloroethane	5.0		**46.9**	50.0	0	93.8	73.5	121	01/21/2013
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0		**53.1**	50.0	0	106.2	64.8	116	01/21/2013
1,1,2-Trichloroethane	5.0		**47.0**	50.0	0	94.1	82.5	112	01/21/2013
1,1-Dichloro-2-propanone	50.0		**135**	125	0	108.0	73.4	132	01/21/2013
1,1-Dichloroethane	5.0		**51.5**	50.0	0	102.9	82.4	112	01/21/2013
1,1-Dichloroethene	5.0		**52.6**	50.0	0	105.2	74.5	114	01/21/2013
1,1-Dichloropropene	5.0		**51.6**	50.0	0	103.3	78.9	113	01/21/2013
1,2,3-Trichlorobenzene	5.0		**41.3**	50.0	0	82.5	78.8	120	01/21/2013
1,2,3-Trichloropropane	5.0		**45.2**	50.0	0	90.5	64.7	122	01/21/2013
1,2,3-Trimethylbenzene	5.0		**48.0**	50.0	0	95.9	84.9	123	01/21/2013
1,2,4-Trichlorobenzene	5.0		**41.5**	50.0	0	83.0	72.3	125	01/21/2013
1,2,4-Trimethylbenzene	5.0		**45.2**	50.0	0	90.4	82.2	115	01/21/2013
1,2-Dibromo-3-chloropropane	5.0		**48.2**	50.0	0	96.5	77.1	122	01/21/2013
1,2-Dibromoethane	5.0		**47.1**	50.0	0	94.2	83.5	113	01/21/2013
1,2-Dichlorobenzene	5.0		**45.7**	50.0	0	91.5	81.8	111	01/21/2013
1,2-Dichloroethane	5.0		**48.2**	50.0	0	96.4	79.8	117	01/21/2013
1,2-Dichloropropane	5.0		**51.7**	50.0	0	103.4	84.6	114	01/21/2013
1,3,5-Trimethylbenzene	5.0		**45.8**	50.0	0	91.5	81.8	114	01/21/2013
1,3-Dichlorobenzene	5.0		**45.4**	50.0	0	90.8	83	112	01/21/2013
1,3-Dichloropropane	5.0		**48.2**	50.0	0	96.4	80.3	113	01/21/2013
1,4-Dichlorobenzene	5.0		**44.6**	50.0	0	89.1	81.4	110	01/21/2013
1-Chlorobutane	5.0		**51.1**	50.0	0	102.2	75.2	114	01/21/2013
2,2-Dichloropropane	5.0		**51.6**	50.0	0	103.2	67	122	01/21/2013
2-Butanone	25.0		**133**	125	0	106.3	75.4	130	01/21/2013
2-Chloroethyl vinyl ether	20.0		**48.1**	50.0	0	96.2	20	133	01/21/2013
2-Chlorotoluene	5.0		**46.2**	50.0	0	92.4	78.9	113	01/21/2013
2-Hexanone	25.0		**132**	125	0	105.8	71.8	129	01/21/2013
2-Nitropropane	50.0		**581**	500	0	116.1	80.9	132	01/21/2013
4-Chlorotoluene	5.0		**45.9**	50.0	0	91.7	78.6	113	01/21/2013
4-Methyl-2-pentanone	25.0		**130**	125	0	104.2	78.7	126	01/21/2013
Acetone	25.0		**136**	125	0	108.6	67.1	133	01/21/2013
Acetonitrile	50.0		**586**	500	0	117.2	70.8	135	01/21/2013
Acrolein	100		**454**	500	0	90.8	27	145	01/21/2013
Acrylonitrile	5.0		**53.4**	50.0	0	106.9	80	127	01/21/2013
Allyl chloride	5.0		**52.7**	50.0	0	105.4	76.6	123	01/21/2013
Benzene	2.0		**49.6**	50.0	0	99.3	83.5	113	01/21/2013
Bromobenzene	5.0		**44.8**	50.0	0	89.6	75.4	122	01/21/2013
Bromochloromethane	5.0		**52.6**	50.0	0	105.1	85.2	116	01/21/2013
Bromodichloromethane	5.0		**50.2**	50.0	0	100.4	85.1	118	01/21/2013
Bromoform	5.0		**52.3**	50.0	0	104.6	82.2	117	01/21/2013
Bromomethane	10.0		**54.0**	50.0	0	108.1	51.5	150	01/21/2013
Carbon disulfide	5.0		**48.5**	50.0	0	96.9	70.6	113	01/21/2013
Carbon tetrachloride	5.0		**52.0**	50.0	0	104.0	71.6	122	01/21/2013
Chlorobenzene	5.0		**46.1**	50.0	0	92.2	81.6	110	01/21/2013
Chloroethane	10.0		**49.0**	50.0	0	98.0	70.8	129	01/21/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** LCS Units µg/L

SampID: LCS-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloroform	5.0		48.9	50.0	0	97.7	82.6	112	01/21/2013
Chloromethane	10.0		42.8	50.0	0	85.7	49.4	128	01/21/2013
Chloroprene	20.0		53.9	50.0	0	107.8	75.7	112	01/21/2013
cis-1,2-Dichloroethene	5.0		48.9	50.0	0	97.8	84.2	114	01/21/2013
cis-1,3-Dichloropropene	5.0		51.6	50.0	0	103.2	84.8	117	01/21/2013
cis-1,4-Dichloro-2-butene	5.0		45.4	50.0	0	90.8	48.1	129	01/21/2013
Cyclohexanone	50.0		587	500	0	117.4	48.4	154	01/21/2013
Dibromochloromethane	5.0		49.0	50.0	0	98.1	84.8	115	01/21/2013
Dibromomethane	5.0		49.6	50.0	0	99.1	84.5	114	01/21/2013
Dichlorodifluoromethane	10.0		44.8	50.0	0	89.5	25.1	141	01/21/2013
Ethyl acetate	10.0		55.4	50.0	0	110.9	68.3	123	01/21/2013
Ethyl ether	5.0		49.8	50.0	0	99.7	79.3	109	01/21/2013
Ethyl methacrylate	5.0		49.0	50.0	0	98.0	81.6	117	01/21/2013
Ethylbenzene	5.0		47.3	50.0	0	94.6	80.7	109	01/21/2013
Hexachlorobutadiene	5.0		49.3	50.0	0	98.6	72.7	115	01/21/2013
Hexachloroethane	10.0		47.9	50.0	0	95.8	72.1	112	01/21/2013
Iodomethane	5.0		46.4	50.0	0	92.7	39.1	151	01/21/2013
Isopropylbenzene	5.0		49.0	50.0	0	98.0	82.9	112	01/21/2013
m,p-Xylenes	5.0		95.3	100	0	95.3	83.2	113	01/21/2013
Methacrylonitrile	10.0		52.4	50.0	0	104.7	81.7	121	01/21/2013
Methyl Methacrylate	5.0		51.6	50.0	0	103.1	81.2	121	01/21/2013
Methyl tert-butyl ether	2.0		47.9	50.0	0	95.8	82.8	116	01/21/2013
Methylacrylate	10.0		62.2	50.0	0	124.4	72.6	131	01/21/2013
Methylene chloride	5.0		48.1	50.0	0	96.1	81.1	110	01/21/2013
Naphthalene	10.0		40.0	50.0	0	80.1	64.3	148	01/21/2013
n-Butyl acetate	25.0		50.6	50.0	0	101.2	73	120	01/21/2013
n-Butylbenzene	5.0		44.2	50.0	0	88.3	77.7	121	01/21/2013
n-Heptane	20.0		57.5	50.0	0	115.0	53.8	123	01/21/2013
n-Hexane	20.0		55.9	50.0	0	111.7	56	123	01/21/2013
Nitrobenzene	50.0		633	500	0	126.6	32.3	159	01/21/2013
n-Propylbenzene	5.0		47.0	50.0	0	93.9	81.3	112	01/21/2013
o-Xylene	5.0		48.0	50.0	0	96.1	81.9	111	01/21/2013
Pentachloroethane	20.0		48.3	50.0	0	96.6	72	121	01/21/2013
p-Isopropyltoluene	5.0		46.3	50.0	0	92.5	83.4	118	01/21/2013
Propionitrile	50.0		571	500	0	114.2	76.8	136	01/21/2013
sec-Butylbenzene	5.0		47.4	50.0	0	94.9	80.5	115	01/21/2013
Styrene	5.0		47.8	50.0	0	95.7	85.6	117	01/21/2013
tert-Butylbenzene	5.0		46.6	50.0	0	93.1	76.3	114	01/21/2013
Tetrachloroethene	5.0		46.8	50.0	0	93.6	73.8	115	01/21/2013
Tetrahydrofuran	20.0		52.0	50.0	0	103.9	58.8	132	01/21/2013
Toluene	5.0		46.9	50.0	0	93.9	81	110	01/21/2013
trans-1,2-Dichloroethene	5.0		52.6	50.0	0	105.1	79.8	116	01/21/2013
trans-1,3-Dichloropropene	5.0		48.6	50.0	0	97.2	84.1	114	01/21/2013
trans-1,4-Dichloro-2-butene	10.0		44.9	50.0	0	89.7	57.7	124	01/21/2013
Trichloroethene	5.0		50.3	50.0	0	100.6	82.6	113	01/21/2013
Trichlorofluoromethane	5.0		50.3	50.0	0	100.7	62.2	124	01/21/2013
Vinyl acetate	10.0		57.9	50.0	0	115.8	81.1	121	01/21/2013

Client: URS Corporation

Work Order: 13010910

Client Project: Roxana Quarterly GW/21562850.03001

Report Date: 22-Jan-13

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 85086 **SampType:** LCS Units µg/L

SampID: LCS-R130121-1

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Vinyl chloride	2.0		**46.6**	50.0	0	93.2	57	124	01/21/2013
Xylenes, Total	5.0		**143**	150	0	95.6	82.8	112	01/21/2013
Surr: 1,2-Dichloroethane-d4			**50.4**	50.0		100.9	74.7	129	01/21/2013
Surr: 4-Bromofluorobenzene			**48.9**	50.0		97.8	86	119	01/21/2013
Surr: Dibromofluoromethane			**50.2**	50.0		100.5	81.7	123	01/21/2013
Surr: Toluene-d8			**49.6**	50.0		99.3	84.1	114	01/21/2013

Batch 85086 **SampType:** MS Units µg/L

SampID: 13010910-002BMS

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1-Dichloroethene	50.0		**324**	460	0	70.4	35.7	136	01/21/2013
Benzene	20.0		**966**	460	614.9	76.4	62.5	121	01/21/2013
Chlorobenzene	50.0		**422**	460	0	91.8	78.6	114	01/21/2013
Ethylbenzene	50.0		**732**	460	357.5	81.4	74.4	130	01/21/2013
m,p-Xylenes	50.0		**703**	460	311.6	85.1	70.5	126	01/21/2013
o-Xylene	50.0		**771**	460	385.5	83.9	71.2	124	01/21/2013
Toluene	50.0		**585**	460	208.1	82.0	69.5	118	01/21/2013
Trichloroethene	50.0		**433**	460	0	94.2	69.4	117	01/21/2013
Surr: 1,2-Dichloroethane-d4			**502**	500		100.4	74.7	129	01/21/2013
Surr: 4-Bromofluorobenzene			**494**	500		98.8	86	119	01/21/2013
Surr: Dibromofluoromethane			**496**	500		99.3	81.7	123	01/21/2013
Surr: Toluene-d8			**489**	500		97.9	84.3	114	01/21/2013

Batch 85086 **SampType:** MSD Units µg/L RPD Limit **20**

SampID: 13010910-002BMSD

Analyses	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,1-Dichloroethene	50.0		**279**	460	0	60.7	323.8	14.86	01/21/2013
Benzene	20.0		**975**	460	571.0	87.8	966.4	0.89	01/21/2013
Chlorobenzene	50.0		**426**	460	0	92.6	422.1	0.90	01/21/2013
Ethylbenzene	50.0		**754**	460	315.6	95.3	731.8	3.00	01/21/2013
m,p-Xylenes	50.0		**721**	460	279.0	96.1	702.9	2.56	01/21/2013
o-Xylene	50.0		**786**	460	347.1	95.4	771.4	1.87	01/21/2013
Toluene	50.0		**592**	460	189.2	87.5	585.3	1.10	01/21/2013
Trichloroethene	50.0		**430**	460	0	93.5	433.3	0.74	01/21/2013
Surr: 1,2-Dichloroethane-d4			**506**	500		101.3			01/21/2013
Surr: 4-Bromofluorobenzene			**500**	500		99.9			01/21/2013
Surr: Dibromofluoromethane			**501**	500		100.1			01/21/2013
Surr: Toluene-d8			**493**	500		98.7			01/21/2013

Teklab, Inc.
Environmental Laboratory

Receiving Check List

http://www.teklabinc.com/

Client: URS Corporation
Work Order: 13010910
Client Project: Roxana Quarterly GW/21562850.03001
Report Date: 22-Jan-13

Carrier: Brian Smith
Received By: EEP

Completed by: Emily E. Pohlman
On: 21-Jan-13

Reviewed by: Marvin L. Darling
On: 21-Jan-13

Pages to follow: Chain of custody [1] Extra pages included [0]

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	Temp ℃	5.8	
Type of thermal preservation?	None ☐	Ice ☑	Blue Ice ☐	Dry Ice	☐	
Chain of custody present?	Yes ☑	No ☐				
Chain of custody signed when relinquished and received?	Yes ☑	No ☐				
Chain of custody agrees with sample labels?	Yes ☑	No ☐				
Samples in proper container/bottle?	Yes ☑	No ☐				
Sample containers intact?	Yes ☑	No ☐				
Sufficient sample volume for indicated test?	Yes ☑	No ☐				
All samples received within holding time?	Yes ☑	No ☐				
Reported field parameters measured:	Field ☐	Lab ☐	NA ☑			
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐				

When thermal preservation is required, samples are compliant with a temperature between 0.1℃ - 6.0℃, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?	Yes ☐	No ☑	No VOA vials	☐
Water - TOX containers have zero headspace?	Yes ☐	No ☐	No TOX containers	☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐		
NPDES/CWA TCN interferences checked/treated in the field?	Yes ☐	No ☐	NA	☑

Any No responses must be detailed below or on the COC.

Headspace was present in 2 of 2 volatile vials for TB-ROX-012113HCL. Client was notified via workorder summary. EEP 1/21/13

13010910

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- ☐ XENCO (_____)
- ☐ CALSCIENCE (_____)
- ☑ OTHER (Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)) ☐ Lab Vendor # (_____)
- ☐ SPL (_____)

Lab Vendor #

Please Check Appropriate Box:

☑ ENV. SERVICES	☐ MOTIVA RETAIL	☐ SHELL RETAIL
☐ MOTIVA SD&CM	☐ CONSULTANT	☐ LUBES
☐ SHELL PIPELINE	☐ OTHER _____	

Print Bill To Contact Name: Dave Palmer

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0 ☐ CHECK IF NO INCIDENT # APPLIES

SAP #: 3 4 0 0 6 1

DATE: 1/21/13

PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION

LOG CODE:

ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST LOUIS, MO 63110

PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel

TELEPHONE: 314-429-0100 FAX: 314-429-0462 Bill To Contact E-MAIL:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA State: IL GLOBAL ID NO:

EDF DELIVERABLE TO (Name Company, Office Location): Teklab, Collinsville IL. PHONE NO: E-MAIL:

CONSULTANT PROJECT NO: Roxana Quarterly GW / 21562850.03001

SAMPLER NAME(S) (Print): Corbett, Williams, Hailemariam, Jansch

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS)

☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☐ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 5.8, ice

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-001	MW10-ROX-012113	1/21/13	1520	water	2			2	2	6	X	X	X	X	0	
-002	PS5-ROX-012113		1500	water	2			2	2		X	X	X	X	1	
-003	TB-ROX-012113 HCL		00:00	water	2				1	2	X			X	1	headspace in 2 of 2 vials 1/21/13
-004	TB-ROX-012113 ST		00:00	Water				2		2		X			1	

Relinquished by (Signature)	Received by (Signature) FED EX	Date 1/21/13	Time
Relinquished by (Signature)	Received by (Signature)	Date 1/21/13	Time BS 1721
Relinquished by (Signature)	Received by (Signature)	Date	Time

05/2/06 Revision

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17425

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/13/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
TB-ROX-010913-HCL	TB-ROX-010913-ST
MW3-ROX-010913	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. This issue is addressed further in the appropriate section below.

The cooler receipt form indicated two of three coolers were received by the laboratory at a temperature of 1.3ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2183-BS/BSD	VOCs	2-Chloroethyl vinyl ether	**42/41**	1	70-130/25
OP31670-BS	SVOCs	Phenol	**29**	NA	30-130
OP31672-BS	SVOCs	Aniline	**37**	NA	40-140
OP31672-BS	SVOCs	Hexachlorocyclopentadiene	**35**	NA	40-140

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
OP31672-BS	SVOCs	Pyridine	**34**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LSCD MSK2183-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-010913	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW3-ROX-010913	SVOCs	Phenol	**UJ**
MW3-ROX-010913	SVOCs	Aniline	**UJ**
MW3-ROX-010913	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW3-ROX-010913	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

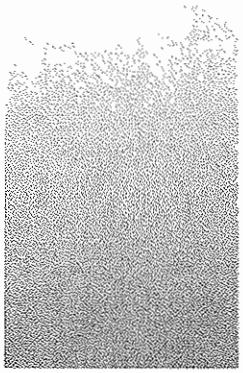
12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

02/14/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17425

Sampling Date: 01/09/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **58**

Reviewed on 2/13/2013

Reza Tand
Lab Director

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.

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **7**
4.1: MC17425-1: TB-ROX-010913-HCL 8
4.2: MC17425-2: TB-ROX-010913-ST 11
4.3: MC17425-3: MW3-ROX-010913 12
Section 5: Misc. Forms **19**
5.1: Chain of Custody 20
5.2: Sample Tracking Chronicle 22
5.3: Internal Chain of Custody 23
Section 6: GC/MS Volatiles - QC Data Summaries **24**
6.1: Method Blank Summary 25
6.2: Blank Spike/Blank Spike Duplicate Summary 28
6.3: Matrix Spike/Matrix Spike Duplicate Summary 31
6.4: Internal Standard Area Summaries 34
6.5: Surrogate Recovery Summaries 36
Section 7: GC/MS Semi-volatiles - QC Data Summaries **37**
7.1: Method Blank Summary 38
7.2: Blank Spike Summary 41
7.3: Matrix Spike/Matrix Spike Duplicate Summary 44
7.4: Internal Standard Area Summaries 47
7.5: Surrogate Recovery Summaries 50
Section 8: GC Volatiles - QC Data Summaries **52**
8.1: Method Blank Summary 53
8.2: Blank Spike Summary 54
8.3: Matrix Spike/Matrix Spike Duplicate Summary 55
8.4: Surrogate Recovery Summaries 56
8.5: GC Surrogate Retention Time Summaries 57

Sample Summary

Shell Oil

Job No: MC17425

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17425-1	01/09/13	00:00	DMCK	01/10/13	AQ	Trip Blank Water	TB-ROX-010913-HCL
MC17425-2	01/09/13	00:00	DMCK	01/10/13	AQ	Trip Blank Water	TB-ROX-010913-ST
MC17425-3	01/09/13	12:05	DMCK	01/10/13	AQ	Ground Water	MW3-ROX-010913

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC17425
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	Report Date	1/24/2013 11:21:27 AM

1 Sample and 2 Trip Blanks were collected on 01/09/2013 and were received at Accutest on 01/10/2013 properly preserved, at 1.3 Deg. C and intact. These Samples received an Accutest job number of MC17425. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ	Batch ID: MSK2183

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17421-14MS, MC17421-14MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein, Styrene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP31672

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17482-1MS, MC17482-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Aniline, Hexachlorocyclopentadiene, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Aniline, Hexachlorocyclopentadiene, Phenol, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, Hexachlorocyclopentadiene, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31673

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17482-2MS, MC17482-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Calibration standard MSF2857-ICC2857, MSF2857-ICV2857, MSF2864-CC2857 not associated with this job.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31715

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17451-5MS, MC17451-5MSD were used as the QC samples indicated.
- RPD(s) for MSD for 1,2-Dibromoethane are outside control limits for sample OP31715-MSD1. High RPD due to possible matrix interference and/or sample non-homogeneity.
- All samples were extracted within the recommended method holding time.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17425).

Summary of Hits

Job Number: MC17425
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/09/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17425-1	TB-ROX-010913-HCL					
No hits reported in this sample.						
MC17425-2	TB-ROX-010913-ST					
No hits reported in this sample.						
MC17425-3	MW3-ROX-010913					
Benzene		1.4	0.50	0.24	ug/l	SW846 8260B
Methyl Tert Butyl Ether		0.80 J	1.0	0.41	ug/l	SW846 8260B
Vinyl Acetate		7.0	5.0	1.3	ug/l	SW846 8260B
Di-n-butyl phthalate		2.5 J	5.0	0.55	ug/l	SW846 8270C
Acenaphthylene		0.023 J	0.10	0.013	ug/l	SW846 8270C BY SIM
Anthracene		0.037 J	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluoranthene		0.047 J	0.10	0.033	ug/l	SW846 8270C BY SIM
Fluorene		0.052 J	0.10	0.046	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.081 J	0.20	0.052	ug/l	SW846 8270C BY SIM
Phenanthrene		0.068	0.050	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.036 J	0.10	0.036	ug/l	SW846 8270C BY SIM

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TB-ROX-010913-HCL		
Lab Sample ID:	MC17425-1	Date Sampled:	01/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66490.D	1	01/16/13	GK	n/a	n/a	MSK2183
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-010913-HCL		
Lab Sample ID:	MC17425-1	Date Sampled:	01/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropaue	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropaue	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Viuyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-ROX-010913-HCL		
Lab Sample ID:	MC17425-1	Date Sampled:	01/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-010913-ST		
Lab Sample ID:	MC17425-2	Date Sampled:	01/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77934.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.9 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	110%		36-173%
460-00-4	Bromofluorobenzene (S)	110%		36-173%

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

Report of Analysis

Client Sample ID:	MW3-ROX-010913		
Lab Sample ID:	MC17425-3	Date Sampled:	01/09/13
Matrix:	AQ - Ground Water	Date Received:	01/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66507.D	1	01/16/13	GK	n/a	n/a	MSK2183
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	1.4	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ng/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ng/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ng/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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

Report of Analysis

Client Sample ID:	MW3-ROX-010913		
Lab Sample ID:	MC17425-3	**Date Sampled:**	01/09/13
Matrix:	AQ - Ground Water	**Date Received:**	01/10/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichlupropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.80	1.0	0.41	ug/l	J
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ng/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	7.0	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW3-ROX-010913		
Lab Sample ID:	MC17425-3	Date Sampled:	01/09/13
Matrix:	AQ - Ground Water	Date Received:	01/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Tolnene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW3-ROX-010913		
Lab Sample ID:	MC17425-3	Date Sampled:	01/09/13
Matrix:	AQ - Ground Water	Date Received:	01/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8596.D	1	01/15/13	KR	01/11/13	OP31672	MSW403
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	UJ
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	I0	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	2.5	5.0	0.55	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	

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RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-010913		
Lab Sample ID:	MC17425-3	Date Sampled:	01/09/13
Matrix:	AQ - Ground Water	Date Received:	01/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%		15-110%
4165-62-2	Phenol-d5	23%		15-110%
118-79-6	2,4,6-Tribromophenol	79%		15-110%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	59%		30-130%
1718-51-0	Terphenyl-d14	64%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW3-ROX-010913		
Lab Sample ID:	MC17425-3	Date Sampled:	01/09/13
Matrix:	AQ - Ground Water	Date Received:	01/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61078.D	1	01/15/13	KR	01/11/13	OP31673	MSF2863
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.023	0.10	0.013	ug/l	J
120-12-7	Anthracene	0.037	0.10	0.018	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	0.047	0.10	0.033	ug/l	J
86-73-7	Fluorene	0.052	0.10	0.046	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methyluaphthalene	0.081	0.20	0.052	ug/l	J
85-01-8	Phenanthrene	0.068	0.050	0.013	ug/l	
129-00-0	Pyrene	0.036	0.10	0.036	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	25%		15-110%
4165-62-2	Pheuol-d5	23%		15-110%
118-79-6	2,4,6-Tribromophenol	83%		15-110%
4165-60-0	Nitrobenzene-d5	88%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

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

Report of Analysis

Client Sample ID:	MW3-ROX-010913		
Lab Sample ID:	MC17425-3	Date Sampled:	01/09/13
Matrix:	AQ - Ground Water	Date Received:	01/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77936.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.9 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ng/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	107%		36-173%
460-00-4	Bromofluorobenzene (S)	106%		36-173%

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

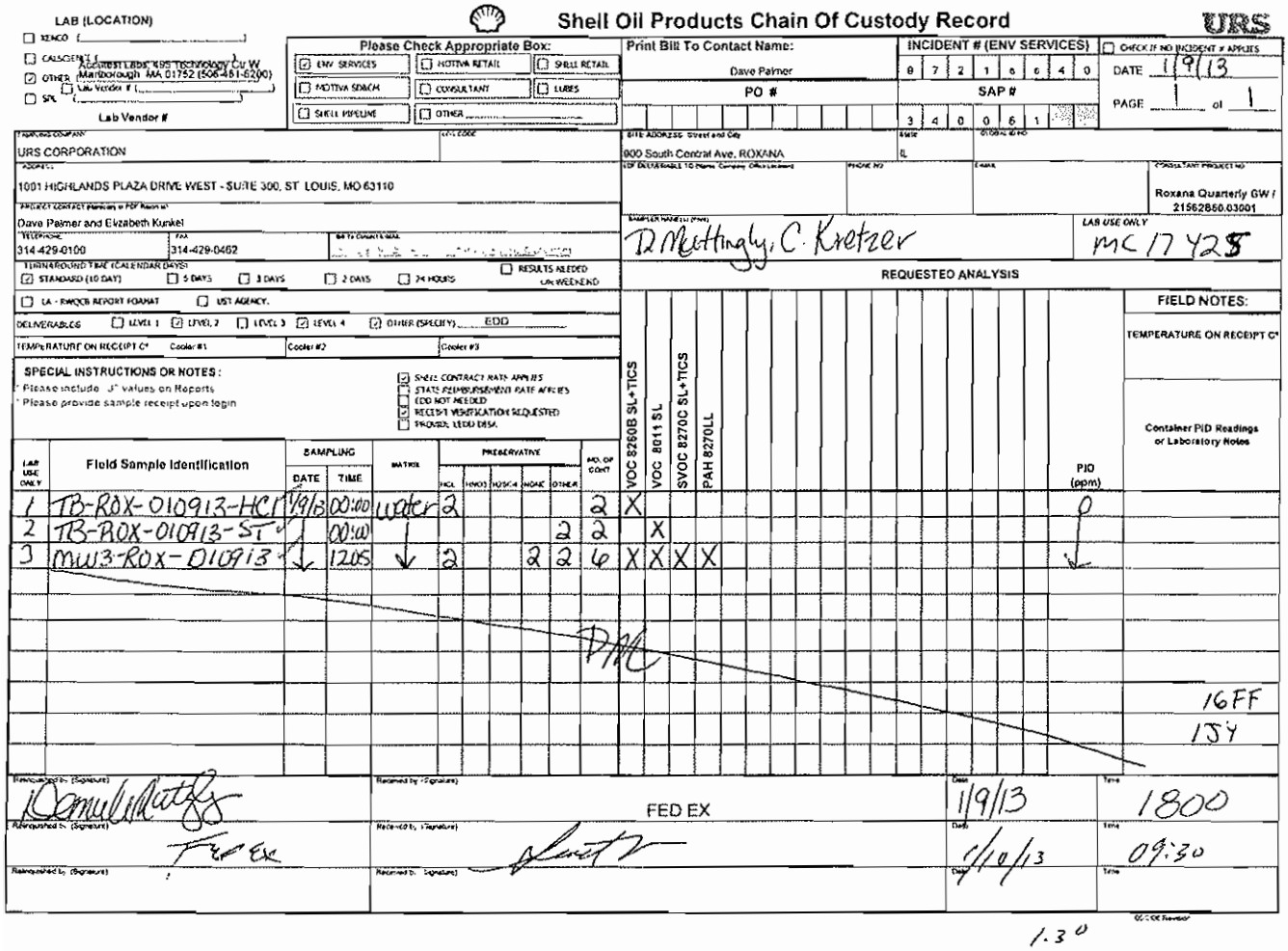
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oil Products Chain Of Custody Record

URS

LAB (LOCATION)
☐ XEACO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W, Marlborough MA 01752 (508-481-6200)
☐ SPL (_____) ☐ Lab Vendor # (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SEARCH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #

INCIDENT # (ENV SERVICES): 0 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE 1/9/13
PAGE 1 of 1

REPORTING COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST LOUIS, MO 63110
PROJECT CONTACT (Name/Co. PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462
SITE ADDRESS (Street and City): 900 South Central Ave, ROXANA
STATE: IL
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21562860.03001
SAMPLER NAME(S) (Print): D Mottingly, C Kretzer
LAB USE ONLY: MC 17425

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
Please include J° values on Reports
Please provide sample receipt upon login
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE RATES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROJECT LEVEL DATA

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)
1	TB-ROX-010913-HCL	1/9/13	00:00	water	2					2	X				0
2	TB-ROX-010913-ST	↓	00:00	↓					2	2		X			↓
3	MW3-ROX-010913	↓	1205	↓	2			2	2	6	X	X	X	X	↓

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container PID Readings or Laboratory Notes
16FF
15Y

DMC

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	FED EX	1/9/13	1800
Fed Ex	[signature]	1/10/13	09:30

1.30

5.1

MC17425: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17425 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/10/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 S CENTRAL No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

5.1

5

MC17425: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17425

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17425-1 Collected: 09-JAN-13 00:00 By: DMCK Received: 10-JAN-13 By: TB-ROX-010913-HCL						
MC17425-1	SW846 8260B	16-JAN-13 11:11	GK			V8260SL+
MC17425-2 Collected: 09-JAN-13 00:00 By: DMCK Received: 10-JAN-13 By: TB-ROX-010913-ST						
MC17425-2	SW846 8011	19-JAN-13 04:35	CZ	17-JAN-13	BJ	V8011SL
MC17425-3 Collected: 09-JAN-13 12:05 By: DMCK Received: 10-JAN-13 By: MW3-ROX-010913						
MC17425-3	SW846 8270C	15-JAN-13 12:06	KR	11-JAN-13	CA	AB8270SL+
MC17425-3	SW846 8270C BY SIM	15-JAN-13 15:51	KR	11-JAN-13	CA	B8270SIMSL
MC17425-3	SW846 8260B	16-JAN-13 18:53	GK			V8260SL+
MC17425-3	SW846 8011	19-JAN-13 05:25	CZ	17-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/10/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17425-1.1	VOC Ref #1	Gary Krasinski	01/16/13 09:33	Retrieve from Storage
MC17425-1.1	Gary Krasinski	VOC Ref #1	01/17/13 08:05	Return to Storage
MC17425-2.2	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17425-2.2	Bijan Jafari		01/17/13 19:07	Depleted
MC17425-3.1	Walk In Ref #22	Michael Rolo	01/11/13 07:16	Retrieve from Storage
MC17425-3.1	Michael Rolo		01/14/13 14:51	Depleted
MC17425-3.4	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17425-3.4	Bijan Jafari		01/17/13 19:07	Depleted
MC17425-3.5	VOC Ref #1	Gary Krasinski	01/16/13 09:33	Retrieve from Storage
MC17425-3.5	Gary Krasinski	VOC Ref #1	01/17/13 08:05	Return to Storage

5.3
5

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2183-MB	K66488.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotolueue	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobeuzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropaue	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2183-MB	K66488.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzeue	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ng/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2183-MB	K66488.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	70-130%
2037-26-5	Toluene-D8	107%	70-130%
460-00-4	4-Bromofluorobenzene	115%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2183-BS	K66485.D	1	01/16/13	GK	n/a	n/a	MSK2183
MSK2183-BSD	K66486.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	62.6	125	53.5	107	16	70-130/25
107-02-8	Acrolein	250	195	78	196	78	1	70-130/25
107-13-1	Acrylonitrile	50	55.7	111	53.1	106	5	70-130/25
71-43-2	Benzene	50	50.3	101	51.0	102	1	70-130/25
108-86-1	Bromobenzene	50	55.0	110	55.3	111	1	70-130/25
74-97-5	Bromochloromethane	50	49.4	99	49.7	99	1	70-130/25
75-27-4	Bromodichloromethane	50	48.8	98	49.8	100	2	70-130/25
75-25-2	Bromoform	50	48.9	98	46.4	93	5	70-130/25
74-83-9	Bromomethane	50	46.3	93	47.0	94	2	70-130/25
78-93-3	2-Butanone (MEK)	50	56.0	112	55.6	111	1	70-130/25
104-51-8	n-Butylbenzene	50	57.8	116	61.2	122	6	70-130/25
135-98-8	sec-Butylbenzene	50	54.2	108	57.1	114	5	70-130/25
98-06-6	tert-Butylbenzene	50	53.1	106	56.2	112	6	70-130/25
75-15-0	Carbon disulfide	50	50.8	102	52.7	105	4	70-130/25
56-23-5	Carbon tetrachloride	50	44.3	89	46.1	92	4	70-130/25
108-90-7	Chlorobenzene	50	47.2	94	47.1	94	0	70-130/25
75-00-3	Chloroethane	50	49.7	99	52.5	105	5	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	20.8	42* a	20.5	41* a	1	70-130/25
67-66-3	Chloroform	50	46.9	94	47.4	95	1	70-130/25
74-87-3	Chloromethane	50	51.2	102	52.9	106	3	70-130/25
95-49-8	o-Chlorotoluene	50	55.4	111	59.3	119	7	70-130/25
106-43-4	p-Chlorotoluene	50	55.7	111	59.1	118	6	70-130/25
124-48-1	Dibromochloromethane	50	52.6	105	51.2	102	3	70-130/25
95-50-1	1,2-Dichlorobenzene	50	51.1	102	51.8	104	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	49.7	99	50.8	102	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	50.0	100	50.3	101	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	48.2	96	49.3	99	2	70-130/25
75-34-3	1,1-Dichloroethane	50	49.6	99	51.7	103	4	70-130/25
107-06-2	1,2-Dichloroethane	50	48.5	97	48.1	96	1	70-130/25
75-35-4	1,1-Dichloroethene	50	53.5	107	56.3	113	5	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	50.0	100	50.6	101	1	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	50.9	102	52.2	104	3	70-130/25
78-87-5	1,2-Dichloropropane	50	52.3	105	55.3	111	6	70-130/25
142-28-9	1,3-Dichloropropane	50	53.0	106	52.0	104	2	70-130/25
594-20-7	2,2-Dichloropropane	50	44.8	90	45.8	92	2	70-130/25
563-58-6	1,1-Dichloropropene	50	54.4	109	56.4	113	4	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2183-BS	K66485.D	1	01/16/13	GK	n/a	n/a	MSK2183
MSK2183-BSD	K66486.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	54.4	109	55.0	110	1	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	57.6	115	58.3	117	1	70-130/25
123-91-1	1,4-Dioxane	250	297	119	249	100	18	70-130/25
97-63-2	Ethyl methacrylate	50	50.0	100	49.7	99	1	77-137/25
100-41-4	Ethylbenzene	50	55.5	111	57.2	114	3	70-130/25
87-68-3	Hexachlorobutadiene	50	48.9	98	49.8	100	2	70-130/25
591-78-6	2-Hexanone	50	55.3	111	54.2	108	2	70-130/25
98-82-8	Isopropylbenzene	50	53.3	107	56.6	113	6	70-130/25
99-87-6	p-Isopropyltoluene	50	55.4	111	57.1	114	3	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	54.4	109	54.5	109	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	50.1	100	50.5	101	1	70-130/25
74-95-3	Methylene bromide	50	48.8	98	50.1	100	3	70-130/25
75-09-2	Methylene chloride	50	50.8	102	51.9	104	2	70-130/25
91-20-3	Naphthalene	50	50.1	100	50.3	101	0	70-130/25
103-65-1	n-Propylbenzene	50	56.3	113	60.4	121	7	70-130/25
100-42-5	Styrene	50	52.1	104	53.1	106	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	50.2	100	48.8	98	3	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	54.8	110	58.2	116	6	70-130/25
127-18-4	Tetrachloroethene	50	50.1	100	49.5	99	1	70-130/25
108-88-3	Toluene	50	54.9	110	56.6	113	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	50.4	101	51.5	103	2	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.0	104	52.9	106	2	70-130/25
71-55-6	1,1,1-Trichloroethane	50	44.6	89	46.7	93	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.6	103	52.0	104	1	70-130/25
79-01-6	Trichloroethene	50	48.8	98	50.7	101	4	70-130/25
75-69-4	Trichlorofluoromethane	50	46.2	92	46.5	93	1	70-130/25
96-18-4	1,2,3-Trichloropropane	50	56.3	113	58.6	117	4	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	51.7	103	54.0	108	4	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	51.1	102	53.5	107	5	70-130/25
108-05-4	Vinyl Acetate	50	51.5	103	51.1	102	1	70-130/25
75-01-4	Vinyl chloride	50	43.3	87	44.3	89	2	70-130/25
	m,p-Xylene	100	114	114	115	115	1	70-130/25
95-47-6	o-Xylene	50	54.3	109	55.2	110	2	70-130/25
1330-20-7	Xylene (total)	150	168	112	170	113	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2183-BS	K66485.D	1	01/16/13	GK	n/a	n/a	MSK2183
MSK2183-BSD	K66486.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	95%	97%	70-130%
2037-26-5	Toluene-D8	108%	111%	70-130%
460-00-4	4-Bromofluorobenzene	112%	116%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

6.2.1

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* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17421-14MS	K66508.D	1	01/16/13	GK	n/a	n/a	MSK2183
MC17421-14MSD	K66509.D	1	01/16/13	GK	n/a	n/a	MSK2183
MC17421-14	K66491.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Compound	MC17421-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	48.7	97	49.7	99	2	70-130/30
107-02-8	Acrolein	ND		250	462	185* [a]	535	214* [a]	15	70-130/30
107-13-1	Acrylonitrile	ND		50	53.0	106	52.8	106	0	70-130/30
71-43-2	Benzene	ND		50	48.3	97	46.5	93	4	70-130/30
108-86-1	Bromobenzene	ND		50	53.3	107	53.5	107	0	70-130/30
74-97-5	Bromochloromethane	ND		50	47.3	95	46.1	92	3	70-130/30
75-27-4	Bromodichloromethane	ND		50	46.5	93	45.9	92	1	70-130/30
75-25-2	Bromoform	ND		50	46.9	94	47.9	96	2	70-130/30
74-83-9	Bromomethane	ND		50	42.1	84	39.5	79	6	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	45.9	92	49.5	99	8	70-130/30
104-51-8	n-Butylbenzene	ND		50	54.2	108	52.6	105	3	70-130/30
135-98-8	sec-Butylbenzene	ND		50	55.0	110	53.1	106	4	70-130/30
98-06-6	tert-Butylbenzene	ND		50	54.4	109	53.9	108	1	70-130/30
75-15-0	Carbon disulfide	ND		50	43.7	87	41.5	83	5	70-130/30
56-23-5	Carbon tetrachloride	ND		50	44.4	89	42.5	85	4	70-130/30
108-90-7	Chlorobenzene	ND		50	49.7	99	48.1	96	3	70-130/30
75-00-3	Chloroethane	ND		50	47.3	95	45.0	90	5	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		50	45.3	91	43.8	88	3	70-130/30
74-87-3	Chloromethane	ND		50	40.1	80	38.5	77	4	70-130/30
95-49-8	o-Chlorotoluene	ND		50	56.6	113	55.0	110	3	70-130/30
106-43-4	p-Chlorotoluene	ND		50	54.1	108	51.9	104	4	70-130/30
124-48-1	Dibromochloromethane	ND		50	49.7	99	49.5	99	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	52.7	105	52.1	104	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	51.8	104	50.4	101	3	70-130/30
106-46-7	1,4-Dichlorobenzeue	ND		50	49.4	99	47.9	96	3	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	38.7	77	35.7	71	8	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	46.5	93	44.8	90	4	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	43.9	88	44.1	88	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	47.1	94	44.0	88	7	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	46.5	93	44.2	88	5	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	47.3	95	46.3	93	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	51.0	102	49.2	98	4	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	50.0	100	50.6	101	1	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	39.2	78	36.9	74	6	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	49.8	100	48.3	97	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17421-14MS	K66508.D	1	01/16/13	GK	n/a	n/a	MSK2183
MC17421-14MSD	K66509.D	1	01/16/13	GK	n/a	n/a	MSK2183
MC17421-14	K66491.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Compound	MC17421-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	50.3	101	49.0	98	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	49.1	98	49.1	98	0	70-130/30
123-91-1	1,4-Dioxane	ND		250	223	89	230	92	3	70-130/30
97-63-2	Ethyl methacrylate	ND		50	43.6	87	45.3	91	4	72-139/30
100-41-4	Ethylbenzene	ND		50	53.6	107	52.4	105	2	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	50.8	102	49.6	99	2	70-130/30
591-78-6	2-Hexanone	ND		50	49.7	99	51.8	104	4	70-130/30
98-82-8	Isopropylbenzene	ND		50	53.9	108	51.8	104	4	70-130/30
99-87-6	p-Isopropyltolnene	ND		50	49.2	98	47.4	95	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	49.2	98	49.3	99	0	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	48.2	96	50.1	100	4	70-130/30
74-95-3	Methylene bromide	ND		50	46.0	92	47.1	94	2	70-130/30
75-09-2	Methylene chloride	ND		50	47.6	95	45.0	90	6	70-130/30
91-20-3	Naphthalene	ND		50	47.0	94	49.0	98	4	70-130/30
103-65-1	n-Propylbenzene	ND		50	55.3	111	53.8	108	3	70-130/30
100-42-5	Styrene	ND		50	32.8	66* [a]	32.4	65* [a]	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	52.0	104	50.6	101	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	51.6	103	52.2	104	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	49.7	99	48.8	98	2	70-130/30
108-88-3	Toluene	ND		50	51.4	103	49.3	99	4	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	50.3	101	51.8	104	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	52.3	105	52.3	105	0	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	44.4	89	42.7	85	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	49.5	99	48.9	98	1	70-130/30
79-01-6	Trichloroethene	ND		50	47.4	95	46.4	93	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	43.3	87	41.0	82	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	48.1	96	50.3	101	4	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	46.3	93	44.7	89	4	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	41.0	82	39.7	79	3	70-130/30
108-05-4	Vinyl Acetate	ND		50	42.3	85	42.8	86	1	70-130/30
75-01-4	Vinyl chloride	ND		50	40.8	82	39.4	79	3	70-130/30
	m,p-Xylene	ND		100	105	105	103	103	2	70-130/30
95-47-6	o-Xylene	ND		50	51.9	104	50.9	102	2	70-130/30
1330-20-7	Xylene (total)	ND		150	157	105	154	103	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17421-14MS	K66508.D	1	01/16/13	GK	n/a	n/a	MSK2183
MC17421-14MSD	K66509.D	1	01/16/13	GK	n/a	n/a	MSK2183
MC17421-14	K66491.D	1	01/16/13	GK	n/a	n/a	MSK2183

The QC reported here applies to the following samples: Method: SW846 8260B

MC17425-1, MC17425-3

CAS No.	Surrogate Recoveries	MS	MSD	MC17421-14	Limits
1868-53-7	Dibromofluoromethane	95%	96%	107%	70-130%
2037-26-5	Toluene-D8	106%	107%	104%	70-130%
460-00-4	4-Bromofluorobenzene	107%	107%	105%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

Volatile Internal Standard Area Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2183-CC2177	Injection Date:	01/16/13
Lab File ID:	K66484.D	Injection Time:	08:28
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	152994	8.81	230689	9.66	105527	12.92	121832	15.48	27124	6.41
Upper Limit [a]	305988	9.31	461378	10.16	211054	13.42	243664	15.98	54248	6.91
Lower Limit [b]	76497	8.31	115345	9.16	52764	12.42	60916	14.98	13562	5.91
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2183-BS	152668	8.82	233566	9.66	105439	12.92	115764	15.48	28896	6.41
MSK2183-BSD	153206	8.82	232145	9.67	108554	12.92	113926	15.48	28117	6.41
MSK2183-MB	147907	8.82	234420	9.67	101584	12.92	107584	15.48	24939	6.41
ZZZZZZ	145548	8.82	230979	9.67	98364	12.92	107661	15.48	22934	6.40
MC17425-1	143040	8.82	223234	9.67	95837	12.92	109826	15.48	22417	6.41
MC17421-14	135382	8.82	212337	9.67	90111	12.92	104689	15.48	21370	6.40
ZZZZZZ	134122	8.82	205224	9.67	89272	12.92	101273	15.48	19003	6.40
ZZZZZZ	132013	8.82	202261	9.67	86614	12.92	100649	15.48	19020	6.40
ZZZZZZ	129615	8.82	201477	9.67	85002	12.93	100326	15.48	18220	6.41
ZZZZZZ	135638	8.82	206526	9.67	89604	12.92	105851	15.48	16594	6.41
ZZZZZZ	140462	8.82	216268	9.67	91206	12.92	106800	15.48	22207	6.41
ZZZZZZ	131736	8.82	206383	9.67	87764	12.92	101956	15.48	21714	6.41
ZZZZZZ	127484	8.82	199578	9.67	84867	12.93	98830	15.48	20363	6.41
ZZZZZZ	136186	8.82	208596	9.66	89593	12.92	105226	15.48	19020	6.41
ZZZZZZ	140256	8.82	219286	9.67	94937	12.92	107548	15.48	21385	6.40
ZZZZZZ	142982	8.82	226470	9.67	96265	12.92	113689	15.48	23664	6.40
ZZZZZZ	149069	8.82	220244	9.67	94702	12.92	110077	15.48	23103	6.41
ZZZZZZ	155049	8.82	227106	9.67	98888	12.93	112561	15.48	25044	6.41
ZZZZZZ	144360	8.82	224178	9.67	94568	12.93	111900	15.48	23666	6.41
MC17425-3	147837	8.81	221340	9.66	93036	12.92	109080	15.48	22703	6.40
MC17421-14MS	145156	8.82	219157	9.67	99656	12.92	112563	15.48	23227	6.41
MC17421-14MSD	151082	8.82	225649	9.67	101399	12.92	115791	15.48	25734	6.41
ZZZZZZ	140248	8.82	217433	9.67	90472	12.92	108422	15.48	21996	6.40
ZZZZZZ	136198	8.82	209157	9.67	88442	12.92	106134	15.48	21940	6.40
ZZZZZZ	135350	8.82	209038	9.67	87615	12.92	103563	15.48	20822	6.40
ZZZZZZ	133131	8.82	205869	9.66	86888	12.92	104545	15.48	20099	6.40
ZZZZZZ	132032	8.82	207169	9.67	87219	12.93	103370	15.48	18613	6.40
ZZZZZZ	128987	8.82	201403	9.67	85619	12.92	100645	15.48	18395	6.41
ZZZZZZ	131119	8.82	204173	9.67	85120	12.92	103477	15.48	18836	6.41
ZZZZZZ	127242	8.82	200025	9.67	84742	12.92	98596	15.48	18626	6.40
ZZZZZZ	127023	8.82	202522	9.66	87285	12.92	106235	15.48	19342	6.40
ZZZZZZ	134225	8.82	211435	9.67	89955	12.92	107657	15.48	19707	6.40
ZZZZZZ	132548	8.82	211803	9.66	88568	12.92	108302	15.48	19813	6.40
ZZZZZZ	133340	8.82	210174	9.66	90316	12.92	107161	15.48	19344	6.40
ZZZZZZ	133790	8.82	210396	9.67	90685	12.92	107774	15.48	18826	6.40

Volatile Internal Standard Area Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2183-CC2177	Injection Date:	01/16/13
Lab File ID:	K66484.D	Injection Time:	08:28
Instrument ID:	GCMSK	Method:	SW846 8260B

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
ZZZZZZ	132765	8.82	210330	9.66	90078	12.92	107470	15.48	21181	6.40
ZZZZZZ	135973	8.82	214928	9.67	92583	12.92	108804	15.48	20740	6.41
ZZZZZZ	134654	8.82	214825	9.67	90765	12.92	109184	15.48	20633	6.40

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17425-1	K66490.D	107.0	107.0	102.0
MC17425-3	K66507.D	100.0	105.0	106.0
MC17421-14MS	K66508.D	95.0	106.0	107.0
MC17421-14MSD	K66509.D	96.0	107.0	107.0
MSK2183-BS	K66485.D	95.0	108.0	112.0
MSK2183-BSD	K66486.D	97.0	111.0	116.0
MSK2183-MB	K66488.D	107.0	107.0	115.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31672-MB	W8591.D	1	01/15/13	KR	01/11/13	OP31672	MSW403

The QC reported here applies to the following samples: Method: SW846 8270C

MC17425-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31672-MB	W8591.D	1	01/15/13	KR	01/11/13	OP31672	MSW403

The QC reported here applies to the following samples: Method: SW846 8270C

MC17425-3

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.0	ug/l	
86-30-6	N-Nitrosodipbenylamine	ND	5.0	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	28%	15-110%
4165-62-2	Pbenol-d5	21%	15-110%
118-79-6	2,4,6-Tribromophenol	71%	15-110%
4165-60-0	Nitrobenzene-d5	58%	30-130%
321-60-8	2-Fluorobiphenyl	52%	30-130%
1718-51-0	Terphenyl-d14	84%	30-130%

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

Method Blank Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31673-MB	F61073.D	1	01/15/13	KR	01/11/13	OP31673	MSF2863

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17425-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ng/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	30%	15-110%
4165-62-2	Phenol-d5	23%	15-110%
118-79-6	2,4,6-Tribromophenol	73%	15-110%
4165-60-0	Nitrobenzene-d5	73%	30-130%
321-60-8	2-Fluorobiphenyl	62%	30-130%
1718-51-0	Terphenyl-d14	92%	30-130%

Blank Spike Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31672-BS	W8592.D	1	01/15/13	KR	01/11/13	OP31672	MSW403

The QC reported here applies to the following samples: Method: SW846 8270C

MC17425-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	40.0	40	30-130
95-57-8	2-Chlorophenol	100	59.7	60	30-130
59-50-7	4-Chloro-3-methyl phenol	100	73.3	73	30-130
120-83-2	2,4-Dichlorophenol	100	68.8	69	30-130
105-67-9	2,4-Dimethylphenol	100	48.1	48	30-130
51-28-5	2,4-Dinitrophenol	100	80.4	80	30-130
534-52-1	4,6-Dinitro-o-cresol	100	85.0	85	30-130
95-48-7	2-Methylphenol	100	55.3	55	30-130
	3&4-Methylphenol	200	105	53	30-130
88-75-5	2-Nitrophenol	100	70.6	71	30-130
100-02-7	4-Nitrophenol	100	39.3	39	30-130
87-86-5	Pentachlorophenol	100	89.4	89	30-130
108-95-2	Phenol	100	29.1	29* a	30-130
95-95-4	2,4,5-Trichlorophenol	100	83.0	83	30-130
88-06-2	2,4,6-Trichlorophenol	100	81.2	81	30-130
62-53-3	Aniline	50	18.6	37* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	41.1	82	40-140
85-68-7	Butyl benzyl phthalate	50	38.0	76	40-140
100-51-6	Benzyl Alcohol	50	31.1	62	40-140
91-58-7	2-Chloronaphthalene	50	36.0	72	40-140
106-47-8	4-Chloroaniline	50	30.0	60	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	31.4	63	40-140
111-44-4	bis(2-Chloroethyl)ether	50	33.6	67	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	39.8	80	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	42.1	84	40-140
122-66-7	1,2-Diphenylhydrazine	50	40.1	80	40-140
121-14-2	2,4-Dinitrotoluene	50	47.2	94	40-140
606-20-2	2,6-Dinitrotoluene	50	42.9	86	40-140
91-94-1	3,3'-Dichlorobenzidine	50	37.2	74	40-140
132-64-9	Dibenzofuran	50	37.6	75	40-140
84-74-2	Di-n-butyl phthalate	50	41.1	82	40-140
117-84-0	Di-n-octyl phthalate	50	47.6	95	40-140
84-66-2	Diethyl phthalate	50	39.6	79	40-140
131-11-3	Dimethyl phthalate	50	25.1	50	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	44.0	88	40-140
118-74-1	Hexachlorobenzene	50	43.1	86	40-140

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31672-BS	W8592.D	1	01/15/13	KR	01/11/13	OP31672	MSW403

The QC reported here applies to the following samples: Method: SW846 8270C

MC17425-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	17.5	35* [a]	40-140
67-72-1	Hexachloroethane	50	25.9	52	40-140
78-59-1	Isophorone	50	40.7	81	40-140
88-74-4	2-Nitroaniline	50	43.3	87	40-140
99-09-2	3-Nitroaniline	50	35.9	72	40-140
100-01-6	4-Nitroaniline	50	40.5	81	40-140
98-95-3	Nitrobenzene	50	35.0	70	40-140
62-75-9	n-Nitrosodimethylamine	50	21.9	44	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	40.8	82	40-140
86-30-6	N-Nitrosodiphenylamine	50	41.9	84	40-140
110-86-1	Pyridine	50	17.2	34* [a]	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	37%	15-110%
4165-62-2	Phenol-d5	28%	15-110%
118-79-6	2,4,6-Tribromophenol	91%	15-110%
4165-60-0	Nitrobenzene-d5	69%	30-130%
321-60-8	2-Fluorobiphenyl	67%	30-130%
1718-51-0	Terphenyl-d14	86%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31673-BS	F61074.D	1	01/15/13	KR	01/11/13	OP31673	MSF2863

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17425-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	42.4	85	40-140
208-96-8	Acenaphthylene	50	30.9	62	40-140
120-12-7	Anthracene	50	46.6	93	40-140
56-55-3	Benzo(a)anthracene	50	48.5	97	40-140
50-32-8	Benzo(a)pyrene	50	50.2	100	40-140
205-99-2	Benzo(b)fluoranthene	50	52.5	105	40-140
191-24-2	Benzo(g,h,i)perylene	50	52.6	105	40-140
207-08-9	Benzo(k)fluoranthene	50	51.4	103	40-140
218-01-9	Chrysene	50	47.9	96	40-140
53-70-3	Dibenzo(a,h)anthracene	50	53.0	106	40-140
206-44-0	Fluoranthene	50	52.4	105	40-140
86-73-7	Fluorene	50	47.5	95	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.9	104	40-140
90-12-0	1-Methylnaphthalene	50	36.5	73	40-140
91-57-6	2-Methylnaphthalene	50	35.6	71	40-140
85-01-8	Phenanthrene	50	47.0	94	40-140
129-00-0	Pyrene	50	49.4	99	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	39%	15-110%
4165-62-2	Phenol-d5	29%	15-110%
118-79-6	2,4,6-Tribromophenol	92%	15-110%
4165-60-0	Nitrobenzene-d5	76%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	98%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31672-MS	W8593.D	1	01/15/13	KR	01/11/13	OP31672	MSW403
OP31672-MSD	W8594.D	1	01/15/13	KR	01/11/13	OP31672	MSW403
MC17482-1	W8595.D	1	01/15/13	KR	01/11/13	OP31672	MSW403

The QC reported here applies to the following samples: Method: SW846 8270C

MC17425-3

CAS No.	Compound	MC17482-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	44.1	44	41.0	41	7	30-130/20
95-57-8	2-Chlorophenol	ND		100	58.4	58	64.0	64	9	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	73.7	74	70.0	70	5	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	70.1	70	70.4	70	0	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	51.1	51	51.3	51	0	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	84.0	84	77.8	78	8	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	85.1	85	79.4	79	7	30-130/20
95-48-7	2-Methylphenol	ND		100	55.5	56	58.1	58	5	30-130/20
	3&4-Methylphenol	ND		200	105	53	110	55	5	30-130/20
88-75-5	2-Nitrophenol	ND		100	71.6	72	73.4	73	2	30-130/20
100-02-7	4-Nitrophenol	ND		100	40.0	40	38.2	38	5	30-130/20
87-86-5	Pentachlorophenol	ND		100	92.0	92	83.8	84	9	30-130/20
108-95-2	Phenol	ND		100	29.1	29* [a]	31.7	32	9	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	82.7	83	77.5	78	6	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	82.4	82	78.1	78	5	30-130/20
62-53-3	Aniline	ND		50	19.3	39* [a]	19.0	38* [a]	2	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	39.4	79	37.7	75	4	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	35.8	72	33.6	67	6	40-140/20
100-51-6	Benzyl Alcohol	ND		50	30.7	61	31.2	62	2	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	35.8	72	35.5	71	1	40-140/20
106-47-8	4-Chloroaniline	ND		50	30.7	61	28.9	58	6	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	31.5	63	32.4	65	3	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	32.5	65	35.8	72	10	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	38.7	77	42.3	85	9	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	41.2	82	38.8	78	6	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	38.9	78	37.6	75	3	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	45.6	91	43.1	86	6	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	42.2	84	39.8	80	6	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	39.9	80	34.8	70	14	40-140/20
132-64-9	Dibenzofuran	ND		50	36.8	74	35.2	70	4	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	39.3	79	37.5	75	5	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	45.8	92	43.4	87	5	40-140/20
84-66-2	Diethyl phthalate	ND		50	37.5	75	35.2	70	6	40-140/20
131-11-3	Dimethyl phthalate	ND		50	24.3	49	21.2	42	14	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	41.1	82	39.6	79	4	40-140/20
118-74-1	Hexachlorobenzene	ND		50	41.2	82	39.1	78	5	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31672-MS	W8593.D	1	01/15/13	KR	01/11/13	OP31672	MSW403
OP31672-MSD	W8594.D	1	01/15/13	KR	01/11/13	OP31672	MSW403
MC17482-1	W8595.D	1	01/15/13	KR	01/11/13	OP31672	MSW403

The QC reported here applies to the following samples: Method: SW846 8270C

MC17425-3

CAS No.	Compound	MC17482-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	17.3	35* [a]	17.8	36* [a]	3	40-140/20
67-72-1	Hexachloroethane	ND		50	26.0	52	28.6	57	10	40-140/20
78-59-1	Isophorone	ND		50	40.9	82	39.4	79	4	40-140/20
88-74-4	2-Nitroaniline	ND		50	43.0	86	40.8	82	5	40-140/20
99-09-2	3-Nitroaniline	ND		50	34.9	70	33.3	67	5	40-140/20
100-01-6	4-Nitroaniline	ND		50	38.6	77	37.3	75	3	40-140/20
98-95-3	Nitrobenzene	ND		50	35.1	70	36.9	74	5	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	21.5	43	23.1	46	7	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	40.5	81	40.9	82	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	40.4	81	38.3	77	5	40-140/20
110-86-1	Pyridine	ND		50	16.7	33* [a]	17.0	34* [a]	2	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17482-1	Limits
367-12-4	2-Fluorophenol	37%	41%	32%	15-110%
4165-62-2	Phenol-d5	28%	30%	23%	15-110%
118-79-6	2,4,6-Tribromophenol	93%	85%	63%	15-110%
4165-60-0	Nitrobenzene-d5	70%	73%	62%	30-130%
321-60-8	2-Flnorobiphenyl	66%	66%	54%	30-130%
1718-51-0	Terphenyl-d14	82%	77%	75%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31673-MS	F61075.D	1	01/15/13	KR	01/11/13	OP31673	MSF2863
OP31673-MSD	F61076.D	1	01/15/13	KR	01/11/13	OP31673	MSF2863
MC17482-2	F61077.D	1	01/15/13	KR	01/11/13	OP31673	MSF2863

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17425-3

7.3.2

7

CAS No.	Compound	MC17482-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	0.016	J	50	42.1	84	40.0	80	5	40-140/20
208-96-8	Acenaphthylene	ND		50	30.2	60	29.0	58	4	40-140/20
120-12-7	Anthracene	ND		50	45.1	90	42.4	85	6	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	46.0	92	43.6	87	5	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	47.4	95	44.7	89	6	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	49.3	99	48.4	97	2	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	49.1	98	46.8	94	5	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	48.6	97	44.3	89	9	40-140/20
218-01-9	Chrysene	ND		50	45.6	91	43.0	86	6	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	50.1	100	46.9	94	7	40-140/20
206-44-0	Fluoranthene	ND		50	50.2	100	47.1	94	6	40-140/20
86-73-7	Fluorene	ND		50	46.5	93	43.6	87	6	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	48.9	98	46.3	93	5	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	36.4	73	36.4	73	0	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	35.6	71	35.7	71	0	40-140/20
85-01-8	Phenanthrene	0.025	J	50	45.5	91	42.4	85	7	40-140/20
129-00-0	Pyrene	ND		50	47.3	95	44.4	89	6	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17482-2	Limits
367-12-4	2-Fluorophenol	39%	44%	33%	15-110%
4165-62-2	Phenol-d5	30%	32%	24%	15-110%
118-79-6	2,4,6-Tribromophenol	92%	86%	69%	15-110%
4165-60-0	Nitrobenzene-d5	75%	79%	78%	30-130%
321-60-8	2-Fluorobiphenyl	73%	72%	66%	30-130%
1718-51-0	Terphenyl-d14	93%	88%	83%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2864-CC2857	Injection Date:	01/15/13
Lab File ID:	F61071.D	Injection Time:	13:13
Instrument ID:	GCMSF	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	77218	3.98	268200	4.96	189175	6.38	366166	7.73	453600	10.49	443849	11.95
Upper Limit [a]	154436	4.48	536400	5.46	378350	6.88	732332	8.23	907200	10.99	887698	12.45
Lower Limit [b]	38609	3.48	134100	4.46	94588	5.88	183083	7.23	226800	9.99	221925	11.45
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31673-MB	83145	3.98	256437	4.96	168640	6.39	325112	7.73	311469	10.50	475158	11.95
OP31673-BS	103868	3.98	306248	4.96	201857	6.39	381921	7.73	375919	10.50	571518	11.95
OP31673-MS	103717	3.98	310215	4.96	202760	6.39	385764	7.73	384732	10.50	580302	11.95
OP31673-MSD	96759	3.98	287400	4.96	188613	6.38	356069	7.73	348196	10.50	534833	11.95
MC17482-2	101636	3.98	307396	4.96	198984	6.38	373493	7.73	364963	10.50	563367	11.95
MC17425-3	102841	3.98	306841	4.96	200635	6.39	371123	7.73	365853	10.50	569529	11.95
OP31686-MB	80539	3.98	282654	4.96	193543	6.38	368544	7.73	430743	10.49	430548	11.95
OP31686-BS	88657	3.98	299575	4.96	202901	6.38	392095	7.73	472897	10.49	453969	11.95
OP31689-MB	94151	3.98	285184	4.96	185939	6.39	349695	7.73	342493	10.49	555236	11.95
OP31689-BS	90993	3.98	270675	4.96	177595	6.39	337832	7.73	327564	10.50	517288	11.95
OP31689-MS	98973	3.98	291267	4.96	191428	6.38	358823	7.73	349103	10.50	555219	11.95
OP31689-MSD	96192	3.98	283939	4.96	185517	6.38	350318	7.73	341618	10.50	541293	11.95
MC17490-5	88133	3.98	266721	4.96	172625	6.39	323318	7.72	315401	10.49	505355	11.95
ZZZZZZ	93345	3.98	278921	4.96	179836	6.39	336613	7.73	329339	10.49	530814	11.95
ZZZZZZ	94119	3.98	284983	4.96	184813	6.39	348032	7.73	339553	10.49	545429	11.95
ZZZZZZ	97642	3.98	294241	4.96	190758	6.38	353971	7.73	350032	10.49	567037	11.95
ZZZZZZ	104101	3.98	315889	4.96	206295	6.39	385214	7.73	373511	10.49	606983	11.95
ZZZZZZ	92563	3.98	279871	4.96	180331	6.38	337266	7.73	326322	10.49	511090	11.95
ZZZZZZ	81040	3.98	248643	4.96	164546	6.38	307783	7.73	302019	10.49	484291	11.95
OP31686-MS	87912	3.98	301523	4.96	201093	6.38	389755	7.73	464953	10.50	464839	11.95
OP31686-MSD	89291	3.98	301048	4.96	201943	6.38	390030	7.73	445089	10.49	440551	11.95
MC17453-6	86567	3.98	296401	4.96	199066	6.38	377608	7.73	433006	10.49	432042	11.95
ZZZZZZ	80123	3.98	282320	4.96	196282	6.38	362813	7.72	456556	10.49	467041	11.95
ZZZZZZ	80543	3.98	284403	4.96	191286	6.38	362197	7.73	427814	10.49	429624	11.95
ZZZZZZ	89656	3.98	307571	4.96	208110	6.38	397680	7.73	474833	10.49	463458	11.95
ZZZZZZ	79705	3.98	277261	4.96	184961	6.38	342616	7.73	417115	10.49	425516	11.95
ZZZZZZ	82290	3.98	284551	4.96	192758	6.38	370064	7.73	489382	10.51	511408	11.97

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2864-CC2857	Injection Date:	01/15/13
Lab File ID:	F61071.D	Injection Time:	13:13
Instrument ID:	GCMSF	Method:	SW846 8270C

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW403-CC399	Injection Date:	01/15/13
Lab File ID:	W8590.D	Injection Time:	09:45
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	55906	4.17	215115	5.17	133939	6.61	242267	7.98	297861	10.93	265416	12.52
Upper Limit [a]	111812	4.67	430230	5.67	267878	7.11	484534	8.48	595722	11.43	530832	13.02
Lower Limit [b]	27953	3.67	107558	4.67	66970	6.11	121134	7.48	148931	10.43	132708	12.02
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31672-MB	47360	4.17	180597	5.17	109578	6.61	198959	7.97	230720	10.92	211427	12.52
OP31672-BS	42808	4.17	165642	5.17	99340	6.61	178220	7.98	209278	10.93	188204	12.52
OP31672-MS	55464	4.17	212574	5.17	131246	6.61	234607	7.98	277306	10.93	245548	12.52
OP31672-MSD	42844	4.17	166295	5.17	100289	6.61	179297	7.97	214347	10.93	194483	12.52
MC17482-1	48536	4.17	187323	5.17	113753	6.61	210212	7.97	239974	10.92	219088	12.52
MC17425-3	46465	4.17	182376	5.17	110175	6.61	200636	7.97	231833	10.92	215795	12.52
ZZZZZZ	41730	4.17	162518	5.17	98212	6.61	178621	7.97	200993	10.92	186686	12.52

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

7

Semivolatile Surrogate Recovery Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17425-3	W8596.D	24.0	23.0	79.0	69.0	59.0	64.0
OP31672-BS	W8592.D	37.0	28.0	91.0	69.0	67.0	86.0
OP31672-MB	W8591.D	28.0	21.0	71.0	58.0	52.0	84.0
OP31672-MS	W8593.D	37.0	28.0	93.0	70.0	66.0	82.0
OP31672-MSD	W8594.D	41.0	30.0	85.0	73.0	66.0	77.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Pheuol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17425-3	F61078.D	25.0	23.0	83.0	88.0	65.0	71.0
OP31673-BS	F61074.D	39.0	29.0	92.0	76.0	74.0	98.0
OP31673-MB	F61073.D	30.0	23.0	73.0	73.0	62.0	92.0
OP31673-MS	F61075.D	39.0	30.0	92.0	75.0	73.0	93.0
OP31673-MSD	F61076.D	44.0	32.0	86.0	79.0	72.0	88.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

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QC Data Summaries

8

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-MB	YZ77925.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17425-2, MC17425-3

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	120%	36-173%
460-00-4	Bromofluorobenzene (S)	111%	36-173%

Blank Spike Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-BS	YZ77926.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17425-2, MC17425-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.081	114	60-140
106-93-4	1,2-Dibromoethane	0.071	0.066	93	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	121%	36-173%
460-00-4	Bromofluorobenzene (S)	114%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-MS1	YZ77927.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
OP31715-MSD1	YZ77928.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
MC17451-5	YZ77929.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17425-2, MC17425-3

CAS No.	Compound	MC17451-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0683	0.068	100	0.052	78	27	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0683	0.060	88	0.044	66	31* [a]	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17451-5	Limits
460-00-4	Bromofluorobenzene (S)	107%	84%	123%	36-173%
460-00-4	Bromofluorobenzene (S)	108%	84%	121%	36-173%

(a) High RPD due to possible matrix interfereuce and/or sample non-homogeneity.

8.3.1

8

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17425-2	YZ77934.D	110.0	110.0
MC17425-3	YZ77936.D	107.0	106.0
OP31715-BS	YZ77926.D	121.0	114.0
OP31715-MB	YZ77925.D	120.0	111.0
OP31715-MS1	YZ77927.D	107.0	108.0
OP31715-MSD1	YZ77928.D	84.0	84.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

8

GC Surrogate Retention Time Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7020-CC7019	Injection Date:	01/19/13
Lab File ID:	YZ77924A.D	Injection Time:	00:23
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.76	3.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31715-MB	YZ77925.D	01/19/13	00:48	3.76	3.48
OP31715-BS	YZ77926.D	01/19/13	01:13	3.76	3.48
OP31715-MS1	YZ77927.D	01/19/13	01:39	3.76	3.48
OP31715-MSD1	YZ77928.D	01/19/13	02:04	3.76	3.48
MC17451-5	YZ77929.D	01/19/13	02:29	3.76	3.48
OP31715-MS2	YZ77930.D	01/19/13	02:54	3.76	3.48
OP31715-MSD2	YZ77931.D	01/19/13	03:19	3.76	3.48
MC17505-7	YZ77932.D	01/19/13	03:45	3.76	3.48
ZZZZZZ	YZ77933.D	01/19/13	04:10	3.76	3.48
MC17425-2	YZ77934.D	01/19/13	04:35	3.76	3.48

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17425
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7020-CC7019	Injection Date:	01/19/13
Lab File ID:	YZ77935.D	Injection Time:	05:00
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.76	3.48

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC17425-3	YZ77936.D	01/19/13	05:25	3.76	3.48
ZZZZZZ	YZ77937.D	01/19/13	05:51	3.76	3.48
ZZZZZZ	YZ77938.D	01/19/13	06:16	3.76	3.48
ZZZZZZ	YZ77939.D	01/19/13	06:41	3.76	3.48
ZZZZZZ	YZ77940.D	01/19/13	07:06	3.76	3.48
ZZZZZZ	YZ77941.D	01/19/13	07:32	3.76	3.48
ZZZZZZ	YZ77942.D	01/I9/13	07:57	3.76	3.48
ZZZZZZ	YZ77943.D	01/19/I3	08:22	3.76	3.48
ZZZZZZ	YZ77944.D	01/19/13	08:48	3.76	3.48
ZZZZZZ	YZ77945.D	01/19/13	09:13	3.76	3.48

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17451

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/5/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW1-ROX-011013	MW1-ROX-011013 EB
TB-011013-HCL	TB-011013-ST
MW12-ROX-011013	MW11-ROX-011013
MW10-ROX-011013	TB-ROX-011013-HCL
TB-ROX-011013-ST	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC and SVOC LCS/LCSD recoveries were outside evaluation criteria. The SVOC and PAH surrogate phenol-d_5 was outside evaluation criteria for sample MW11-ROX-011013. VOC and SVOC MS/MSD recoveries and VOCs MS/MSD RPDs were outside evaluation criteria in sample MW12-ROX-011013. Perylene-d_{12} internal standard area recovery for sample MW11-ROX-011013 was outside evaluation criteria. PAHs were detected in the equipment blank. Sample MW12-ROX-011013 was diluted due to high levels of VOC target analytes. Additionally, the continuing calibration verification for acrolein exceeded 50 percent difference (%D). Professional judgment was used to qualify acetone in samples MW12-ROX-011013 and MW10-ROX-011013. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated two of three coolers were received by the laboratory at temperatures of 1.3ºC and 0.9ºC, which are outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/ Amount
MW1-ROX-011013 EB	PAHs	Acenaphthene	0.016 ug/L
MW1-ROX-011013 EB	PAHs	Phenanthrene	0.027 ug/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW1-ROX-011013	PAHs	Acenaphthene	-	**U**
MW1-ROX-011013	PAHs	Phenanthrene	-	**U**
MW12-ROX-011013	PAHs	Phenanthrene	-	**U**
MW11-ROX-011013	PAHs	Phenanthrene	-	**U**
MW10-ROX-011013	PAHs	Phenanthrene	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2184-BS/BSD	VOCs	2-Chloroethyl vinyl ether	**39/39**	1	70-130/25
OP31700-BS	SVOCs	Aniline	**38**	NA	40-140
OP31700-BS	SVOCs	Dimethyl phthalate	**36**	NA	40-140
OP31700-BS	SVOCs	Hexachlorocyclopentadiene	**31**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LCSD MSK2184-BS/BSD and LCS OP31700-BS were associated with trip/equipment blank quality control samples and are not qualified.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-011013	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW12-ROX-011013	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW11-ROX-011013	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW10-ROX-011013	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW1-ROX-011013	SVOCs	Aniline	**UJ**
MW1-ROX-011013	SVOCs	Dimethyl phthalate	**UJ**
MW1-ROX-011013	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW1-ROX-011013	SVOCs	Pyridine	**UJ**
MW12-ROX-011013	SVOCs	Aniline	**UJ**
MW12-ROX-011013	SVOCs	Dimethyl phthalate	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW12-ROX-011013	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW12-ROX-011013	SVOCs	Pyridine	**UJ**
MW11-ROX-011013	SVOCs	Aniline	**UJ**
MW11-ROX-011013	SVOCs	Dimethyl phthalate	**UJ**
MW11-ROX-011013	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW11-ROX-011013	SVOCs	Pyridine	**UJ**
MW10-ROX-011013	SVOCs	Aniline	**UJ**
MW10-ROX-011013	SVOCs	Dimethyl phthalate	**UJ**
MW10-ROX-011013	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW10-ROX-011013	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW11-ROX-011013 Run#1	SVOCs	Phenol-d_5	**13**	15-110
MW11-ROX-011013 Run#2	SVOCs	Phenol-d_5	**13**	15-110
MW11-ROX-011013 Run#1	PAHs	Phenol-d_5	**14**	15-110
MW11-ROX-011013 Run#2	PAHs	Phenol-d_5	**14**	15-110

Analytical data that required qualification based on surrogate data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
MW11-ROX-011013	SVOCs	SVOC non-detects	**UJ**
MW11-ROX-011013	PAHs	PAH non-detects	**UJ**
MW11-ROX-011013	PAHs	Phenanthrene	**UJ**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample MW12-ROX-011013 was spiked and analyzed for VOCs, SVOCs, and PAHs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW12-ROX-011013	VOCs	Acetone	**296/302**	1	70-130/30
MW12-ROX-011013	VOCs	Acrolein	**332/362**	9	70-130/30
MW12-ROX-011013	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	70-130/30

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW12-ROX-011013	SVOCs	Aniline	**31/36**	16	40-140/20
MW12-ROX-011013	SVOCs	Hexachlorocyclopentadiene	**28/33**	15	40-140/20
MW12-ROX-011013	SVOCs	n-Nitrosodimethylamine	**36**/41	14	40-140/20
MW12-ROX-011013	SVOCs	Pyridine	**28/34**	17	40-140/20
MW12-ROX-011013	VOC by 8011	1,2-Dibromoethane	88/66	**31**	

Analytical results reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a high bias, did not require qualification. USEPA National Functional Guidelines for Organic Data Review indicates that organic data does not require qualification based on MS/MSD data alone. LCS/LCSD recoveries were within evaluation criteria with the exception of compounds listed and qualified as appropriate in Section 5.0 of this data review. No further qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	IS Criteria
MW11-ROX-011013	SVOCs	Perylene-d_{12}	**781739**	158050-632198

Analytical results reported as non-detect and associated with internal standard recoveries above evaluation criteria, indicating a high bias, did not require qualification. Sample MW11-ROX-011013 was previously qualified in Section 6.0 of this data review due to surrogate recovery criteria. No further qualification of data was required.

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification recovery for acrolein exceeded 50 percent difference (%D); analytes in associated samples were qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-011013	VOCs	Acrolein	**UJ**
MW12-ROX-011013	VOCs	Acrolein	**UJ**
MW11-ROX-011013	VOCs	Acrolein	**UJ**
MW10-ROX-011013	VOCs	Acrolein	**UJ**

Additionally, professional judgment was used to qualify the common laboratory contaminant acetone reported at concentrations greater than two times (>2X) the reporting limit (RL), since acetone is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
MW12-ROX-011013	Acetone	350 ug/L	**U**	Professional Judgment
MW10-ROX-011013	Acetone	101 ug/L	**U**	Professional Judgment

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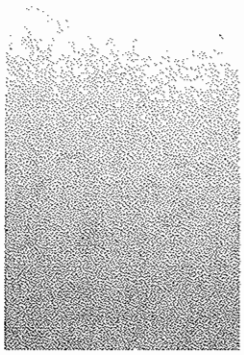
02/01/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17451

Sampling Date: 01/10/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **93**

Reviewed on 2/5/2013

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Table of Contents

Sections: 1 2 3 4 5 6 7 8

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **7**
4.1: MC17451-1: MW1-ROX-011013 8
4.2: MC17451-2: MW1-ROX-011013 EB 15
4.3: MC17451-3: TB-011013-HCL 22
4.4: MC17451-4: TB-011013-ST 25
4.5: MC17451-5: MW12-ROX-011013 26
4.6: MC17451-6: MW11-ROX-011013 33
4.7: MC17451-7: MW10-ROX-011013 40
4.8: MC17451-8: TB-ROX-011013-HCL 47
4.9: MC17451-9: TB-ROX-011013-ST 50
Section 5: Misc. Forms **51**
5.1: Chain of Custody 52
5.2: Sample Tracking Chronicle 55
5.3: Internal Chain of Custody 57
Section 6: GC/MS Volatiles - QC Data Summaries **59**
6.1: Method Blank Summary 60
6.2: Blank Spike/Blank Spike Duplicate Summary 63
6.3: Matrix Spike/Matrix Spike Duplicate Summary 66
6.4: Internal Standard Area Summaries 69
6.5: Surrogate Recovery Summaries 70
Section 7: GC/MS Semi-volatiles - QC Data Summaries **71**
7.1: Method Blank Summary 72
7.2: Blank Spike Summary 75
7.3: Blank Spike/Blank Spike Duplicate Summary 77
7.4: Matrix Spike/Matrix Spike Duplicate Summary 78
7.5: Internal Standard Area Summaries 81
7.6: Surrogate Recovery Summaries 85
Section 8: GC Volatiles - QC Data Summaries **87**
8.1: Method Blank Summary 88
8.2: Blank Spike Summary 89
8.3: Matrix Spike/Matrix Spike Duplicate Summary 90
8.4: Surrogate Recovery Summaries 91
8.5: GC Surrogate Retention Time Summaries 92

Sample Summary

Shell Oil

Job No: MC17451

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17451-1	01/10/13	14:30 LRSJ	01/11/13	AQ	Ground Water	MW1-ROX-011013
MC17451-2	01/10/13	14:50 LRSJ	01/11/13	AQ	Ground Water	MW1-ROX-011013 EB
MC17451-3	01/10/13	00:00 LRSJ	01/11/13	AQ	Trip Blank Water	TB-011013-HCL
MC17451-4	01/10/13	00:00 LRSJ	01/11/13	AQ	Trip Blank Water	TB-011013-ST
MC17451-5	01/10/13	10:55 LRSJ	01/11/13	AQ	Ground Water	MW12-ROX-011013
MC17451-5D	01/10/13	10:55 LRSJ	01/11/13	AQ	Water Dup/MSD	MW12-ROX-011013
MC17451-5S	01/10/13	10:55 LRSJ	01/11/13	AQ	Water Matrix Spike	MW12-ROX-011013
MC17451-6	01/10/13	13:55 LRSJ	01/11/13	AQ	Ground Water	MW11-ROX-011013
MC17451-7	01/10/13	15:25 LRSJ	01/11/13	AQ	Ground Water	MW10-ROX-011013
MC17451-8	01/10/13	00:00 LRSJ	01/11/13	AQ	Trip Blank Water	TB-ROX-011013-HCL
MC17451-9	01/10/13	00:00 LRSJ	01/11/13	AQ	Trip Blank Water	TB-ROX-011013-ST

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC17451
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	**Report Date**	1/25/2013 3:55:03 PM

5 Sample(s) and 4 Trip Blank(s) were collected on 01/10/2013 and were received at Accutest on 01/11/2013 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of MC17451. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSK2184

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17451-5MS, MC17451-5MSD were used as the QC samples indicated.
- BS/BSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MS/MSD Recovery(s) for Acetone are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- Continuing calibration check standard MSK2184-CC2177 for Acrolein exceeds 50% Difference (response bias high). Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ **Batch ID:** OP31700

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17451-5MS, MC17451-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Aniline, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Aniline, Hexachlorocyclopentadiene, n-Nitrosodimethylamine, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, Hexachlorocyclopentadiene, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC17451-6: Confirmation run for surrogate recoveries.
- MC17451-6 for Phenol-d5: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31701

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17451-5MS, MC17451-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC17451-6: Confirmation run for surrogate recoveries.
- MC17451-6 for Phenol-d5: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- MC17451-6 for internal standard Perylene-d12 is outside control limits. Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31715

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17451-5MS, MC17451-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 1,2-Dibromoethane are outside control limits for sample OP31715-MSD1. High RPD due to possible matrix interference and/or sample non-homogeneity.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17451).

Summary of Hits

Job Number: MC17451
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL
Collected: 01/10/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17451-1	MW1-ROX-011013					
Methyl Tert Butyl Ether		1.5	1.0	0.41	ug/l	SW846 8260B
Acenaphthene		0.024 J	0.10	0.014	ug/l	SW846 8270C BY SIM
Phenanthrene		0.021 J	0.052	0.013	ng/l	SW846 8270C BY SIM
MC17451-2	MW1-ROX-011013 EB					
Acenaphthene		0.016 J	0.10	0.014	ug/l	SW846 8270C BY SIM
Phenanthrene		0.027 J	0.050	0.013	ng/l	SW846 8270C BY SIM
MC17451-3	TB-011013-HCL					
No hits reported in this sample.						
MC17451-4	TB-011013-ST					
No hits reported in this sample.						
MC17451-5	MW12-ROX-011013					
Acetone		350	50	30	ug/l	SW846 8260B
Toluene		0.89 J	1.0	0.51	ug/l	SW846 8260B
Benzo(b)fluoranthene		0.026 J	0.051	0.024	ug/l	SW846 8270C BY SIM
Fluoranthene		0.045 J	0.10	0.033	ug/l	SW846 8270C BY SIM
Phenanthrene		0.032 J	0.051	0.013	ug/l	SW846 8270C BY SIM
MC17451-6	MW11-ROX-011013					
Phenanthrene		0.015 J	0.050	0.013	ng/l	SW846 8270C BY SIM
MC17451-7	MW10-ROX-011013					
Acetone		101	5.0	3.0	ng/l	SW846 8260B
Chloromethane		7.4	2.0	0.73	ug/l	SW846 8260B
Vinyl Acetate		16.0	5.0	1.3	ug/l	SW846 8260B
Phenanthrene		0.021 J	0.050	0.013	ug/l	SW846 8270C BY SIM
MC17451-8	TB-ROX-011013-HCL					
No hits reported in this sample.						
MC17451-9	TB-ROX-011013-ST					
No hits reported in this sample.						

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4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW1-ROX-011013		
Lab Sample ID:	MC17451-1	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66537.D	1	01/17/13	GK	n/a	n/a	MSK2184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW1-ROX-011013		
Lab Sample ID:	MC17451-1	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropaue	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	I5	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.5	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,I,1,2-Tetrachloroethaue	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluorounethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW1-ROX-011013		
Lab Sample ID:	MC17451-1	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	108%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW1-ROX-011013		
Lab Sample ID:	MC17451-1	Date Sampled:	01/10/13
Matrix:	AQ - Gronnd Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8696.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.73	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ng/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.6	ng/l	
87-86-5	Pentachlornphenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.75	ug/l	
85-68-7	Bntyl benzyl phthalate	ND	5.2	0.68	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ng/l	
91-58-7	2-Chloronaphthalene	ND	5.2	1.0	ng/l	
106-47-8	4-Chloroaniline	ND	10	3.5	ng/l	
111-91-1	bis(2-Chloroethoxy)ruethane	ND	5.2	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.99	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.83	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.79	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.92	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	1.3	ng/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:	MW1-ROX-011013		
Lab Sample ID:	MC17451-1	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.52	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.2	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	1.6	ug/l	
78-59-1	Isophorone	ND	5.2	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.89	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.99	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		15-110%
4165-62-2	Phenol-d5	36%		15-110%
118-79-6	2,4,6-Tribromophenol	70%		15-110%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW1-ROX-011013		
Lab Sample ID:	MC17451-1	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8680.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.024	0.10	0.014	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.039	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.075	ng/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.034	ug/l	
86-73-7	Fluorene	ND	0.10	0.048	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.21	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.21	0.054	ug/l	
85-01-8	Phenanthrene	0.021	0.052	0.013	ug/l	J
129-00-0	Pyrene	ND	0.10	0.037	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		15-110%
4165-62-2	Phenol-d5	39%		15-110%
118-79-6	2,4,6-Tribromophenol	84%		15-110%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	76%		30-130%

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

Report of Analysis

Client Sample ID:	MW1-ROX-011013		
Lab Sample ID:	MC17451-1	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77937.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	109%		36-173%
460-00-4	Bromofluorobenzene (S)	106%		36-173%

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

Report of Analysis

Client Sample ID:	MW1-ROX-011013 EB		
Lab Sample ID:	MC17451-2	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Ceutral Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66538.D	1	01/17/13	GK	n/a	n/a	MSK2184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ng/l	
67-66-3	Chloroform	ND	1.0	0.50	ng/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroetbane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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:	MW1-ROX-011013 EB		
Lab Sample ID:	MC17451-2	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ng/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW1-ROX-011013 EB		
Lab Sample ID:	MC17451-2	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	107%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW1-ROX-011013 EB		
Lab Sample ID:	MC17451-2	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8697.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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:	MW1-ROX-011013 EB		
Lab Sample ID:	MC17451-2	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		15-110%
4165-62-2	Phenol-d5	24%		15-110%
118-79-6	2,4,6-Tribromophenol	73%		15-110%
4165-60-0	Nitrobenzene-d5	58%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW1-ROX-011013 EB		
Lab Sample ID:	MC17451-2	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8681.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.016	0.10	0.014	ug/l	J
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	0.027	0.050	0.013	ug/l	J
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		15-110%
4165-62-2	Phenol-d5	26%		15-110%
118-79-6	2,4,6-Tribromophenol	82%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	58%		30-130%
1718-51-0	Terphenyl-d14	93%		30-130%

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:	MW1-ROX-011013 EB		
Lab Sample ID:	MC17451-2	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77938.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	36.0 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	115%		36-173%
460-00-4	Bromofluorobenzene (S)	112%		36-173%

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

Report of Analysis

Client Sample ID:	TB-0I1013-HCL		
Lab Sample ID:	MC17451-3	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.0300I 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66534.D	1	01/17/13	GK	n/a	n/a	MSK2184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotolnene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ng/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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 presnmptive evidence of a componnd

Report of Analysis

Client Sample ID:	TB-011013-HCL		
Lab Sample ID:	MC17451-3	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropeue	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methyleue chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetracbloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-011013-HCL		
Lab Sample ID:	MC17451-3	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromoflnorobenzene	108%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-011013-ST		
Lab Sample ID:	MC17451-4	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77939.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.7 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	111%		36-173%
460-00-4	Bromofluorobenzene (S)	110%		36-173%

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

Report of Analysis

Client Sample ID:	MW12-ROX-011013		
Lab Sample ID:	MC17451-5	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66536.D	1	01/17/13	GK	n/a	n/a	MSK2184
Run #2	K66541.D	10	01/17/13	GK	n/a	n/a	MSK2184

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	~~350~~[a] U	~~50~~ 350	30	ug/l	U UJ
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethaue	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzeue	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW12-ROX-011013		
Lab Sample ID:	MC17451-5	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	0.89	1.0	0.51	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ng/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW12-ROX-011013		
Lab Sample ID:	MC17451-5	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%	116%	70-130%
2037-26-5	Toluene-D8	110%	111%	70-130%
460-00-4	4-Bromofluorobenzene	106%	110%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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:	MW12-ROX-011013		
Lab Sample ID:	MC17451-5	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8695.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.1	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.74	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.67	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.97	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.81	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.78	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.90	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	1.3	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:	MW12-ROX-011013		
Lab Sample ID:	MC17451-5	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.51	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.21	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.47	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.1	1.6	ug/l	
78-59-1	Isophorone	ND	5.1	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.88	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.97	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.51	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		15-110%
4165-62-2	Phenol-d5	24%		15-110%
118-79-6	2,4,6-Tribromophenol	54%		15-110%
4165-60-0	Nitrobenzene-d5	51%		30-130%
321-60-8	2-Fluorobiphenyl	48%		30-130%
1718-51-0	Terphenyl-d14	62%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW12-ROX-011013		
Lab Sample ID:	MC17451-5	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8679.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	0.026	0.051	0.024	ug/l	J
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	0.045	0.10	0.033	ug/l	J
86-73-7	Fluorene	ND	0.10	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ng/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	~~0.032~~	0.051	0.013	ug/l	J
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		15-110%
4165-62-2	Phenol-d5	26%		15-110%
118-79-6	2,4,6-Tribromophenol	63%		15-110%
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Fluorobiphenyl	52%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

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:	MW12-ROX-011013		
Lab Sample ID:	MC17451-5	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77929.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.7 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	121%		36-173%
460-00-4	Bromofluorobenzene (S)	123%		36-173%

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

Report of Analysis

Client Sample ID:	MW11-ROX-011013		
Lab Sample ID:	MC17451-6	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66539.D	1	01/17/13	GK	n/a	n/a	MSK2184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ng/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ng/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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

Report of Analysis

Client Sample ID:	MW11-ROX-011013		
Lab Sample ID:	MC17451-6	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW11-ROX-011013		
Lab Sample ID:	MC17451-6	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW11-ROX-011013		
Lab Sample ID:	MC17451-6	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8698.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
Run #2 [a]	W8809.D	1	01/22/13	NS	01/15/13	OP31700	MSW414

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	UJ
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	UJ
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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:	MW11-ROX-011013		
Lab Sample ID:	MC17451-6	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	UJ
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	UJ
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	ng/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	17%	16%	15-110%
4165-62-2	Phenol-d5	13% b	13% b	15-110%
118-79-6	2,4,6-Tribromophenol	65%	64%	15-110%
4165-60-0	Nitrobenzene-d5	53%	53%	30-130%
321-60-8	2-Fluorobiphenyl	48%	48%	30-130%
1718-51-0	Terphenyl-d14	65%	64%	30-130%

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

(a) Confirmation run for surrogate recoveries.
(h) Outside control limits due to possible matrix interference. Confirmed by 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:	MW11-ROX-011013		
Lab Sample ID:	MC17451-6	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8682.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
Run #2 [a]	W8808.D	1	01/22/13	KR	01/15/13	OP31701	MSW410

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	UJ
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	~~0.015~~ u	0.050	0.013	ug/l	J UJ
129-00-0	Pyrene	ND	0.10	0.036	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	18%	17%	15-110%
4165-62-2	Phenol-d5	14% [b]	14% [b]	15-110%
118-79-6	2,4,6-Tribromophenol	71%	75%	15-110%
4165-60-0	Nitrobenzene-d5	56%	55%	30-130%
321-60-8	2-Fluorobiphenyl	53%	53%	30-130%
1718-51-0	Terpheuyl-d14	83%	86%	30-130%

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to possible matrix interference. Confirmed by 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:	MW11-ROX-011013		
Lab Sample ID:	MC17451-6	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77940.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	34.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	131%		36-173%
460-00-4	Bromofluorobenzene (S)	121%		36-173%

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

Report of Analysis

Client Sample ID:	MW10-ROX-011013		
Lab Sample ID:	MC17451-7	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66540.D	1	01/17/13	GK	n/a	n/a	MSK2184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	~~101~~ u	~~5.0~~ 10	3.0	ug/l	u
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	7.4	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW10-ROX-011013		
Lab Sample ID:	MC17451-7	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloruethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	16.0	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW10-ROX-011013		
Lab Sample ID:	MC17451-7	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	112%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW10-ROX-011013		
Lab Sample ID:	MC17451-7	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8699.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ng/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ng/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-011013		
Lab Sample ID:	MC17451-7	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadieue	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	ug/l	
621-64-7	N-Nitroso-di-n-propylamiue	ND	5.0	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		15-110%
4165-62-2	Phenol-d5	24%		15-110%
118-79-6	2,4,6-Tribromophenol	80%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	68%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW10-ROX-011013		
Lab Sample ID:	MC17451-7	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8683.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ng/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	0.021	0.050	0.013	ug/l	J
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		15-110%
4165-62-2	Phenol-d5	26%		15-110%
118-79-6	2,4,6-Tribromophenol	92%		15-110%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	88%		30-130%

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:	MW10-ROX-011013		
Lab Sample ID:	MC17451-7	Date Sampled:	01/10/13
Matrix:	AQ - Ground Water	Date Received:	01/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77941.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	33.9 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	139%		36-173%
460-00-4	Bromofluorobenzene (S)	134%		36-173%

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

Report of Analysis

Client Sample ID:	TB-ROX-011013-HCL		
Lab Sample ID:	MC17451-8	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66535.D	1	01/17/13	GK	n/a	n/a	MSK2184
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromubenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ng/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-011013-HCL		
Lab Sample ID:	MC17451-8	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Aveuue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methyleue hromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-ROX-011013-HCL		
Lab Sample ID:	MC17451-8	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	108%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-011013-ST		
Lab Sample ID:	MC17451-9	Date Sampled:	01/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77942.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	34.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	131%		36-173%
460-00-4	Bromofluorobenzene (S)	129%		36-173%

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

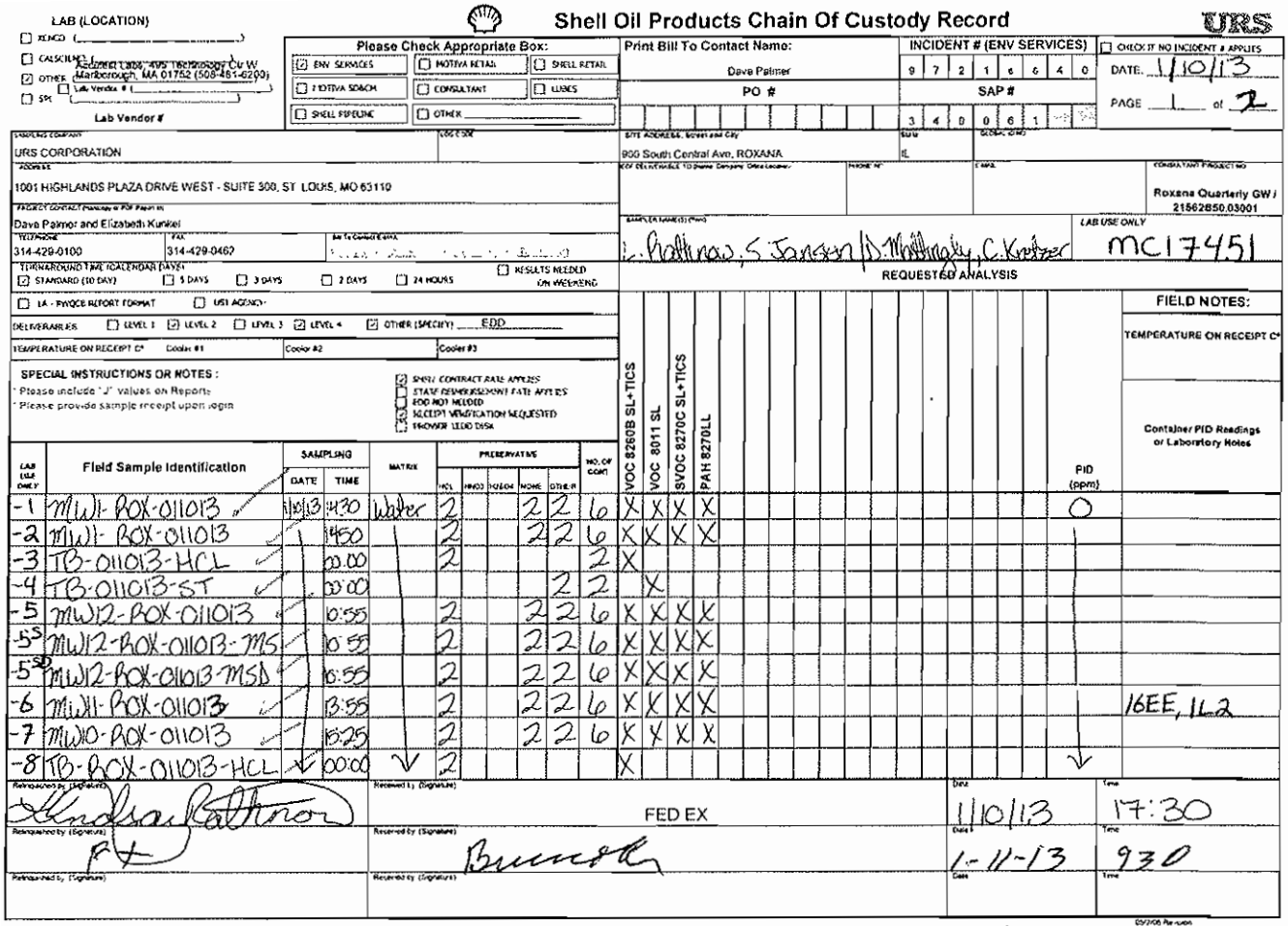
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oil Products Chain Of Custody Record

URS

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER (Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ SPL (Lab Vendor # _____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES | ☐ MOTIVA RETAIL | ☐ SHELL RETAIL
☐ MOTIVA SOMO | ☐ CONSULTANT | ☐ UBCS
☐ SHELL PIPELINE | ☐ OTHER _____

Print Bill To Contact Name: Dave Palmer
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 5 6 4 0
☐ CHECK IF NO INCIDENT # APPLIES
SAP #: 3 4 0 0 6 1
DATE: 1/10/13
PAGE 1 of 2

LEADING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 | FAX: 314-429-0462 | E-mail To Contact(s):
TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SITE ADDRESS (Street and City): 900 South Central Ave, ROXANA
STATE: IL
GLOBAL ID NO.:
KEY DELIVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562850.03001
SAMPLER NAME(S) (Print): L. Rathnau, S. Janson, D. Mattingly, C. Kreitzer
LAB USE ONLY: MC17451
REQUESTED ANALYSIS

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports
* Please provide sample receipt upon login
☐ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DATA

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	MW1-BOX-011013	1/10/13	14:30	Water	2			2	2	6	X	X	X	X	0	
-2	MW1-BOX-011013		14:50		2			2	2	6	X	X	X	X		
-3	TB-011013-HCL		00:00		2				2	2	X					
-4	TB-011013-ST		00:00						2	2		X				
-5	MW12-BOX-011013		10:55		2			2	2	6	X	X	X	X		
-5S	MW12-BOX-011013-MS		10:55		2			2	2	6	X	X	X	X		
-5SD	MW12-BOX-011013-MSD		10:55		2			2	2	6	X	X	X	X		
-6	MW11-BOX-011013		13:55		2			2	2	6	X	X	X	X		16EE, IL2
-7	MW10-BOX-011013		15:25		2			2	2	6	X	X	X	X		
-8	TB-BOX-011013-HCL	↓	00:00	↓	2					2	X				↓	

Relinquished by (Signature)	Received by (Signature)	Date	Time
Andrea Rathnau	FED EX	1/10/13	17:30
	Brunette	1-11-13	930

1.3°C, 0.9°C, 2.0°C

5.1

MC17451: Chain of Custody
Page 1 of 3

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W (Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV SERVICES | ☐ MOTIVA RETAIL | ☐ SHELL RETAIL
☐ MOTIVA SOMOA | ☐ CONSULTANT | ☐ LUBES
☐ SHELL PIPELINE | ☐ OTHER

Print Bill To Contact Name: Dave Palmer
INCIDENT # (ENV SERVICES)
PO #
SAP # 5 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 1/10/13
PAGE 2 of 2

SAMPLING COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 | FAX: 314-429-0462
SITE ADDRESS (Street and City): 800 South Central Ave, ROXANA | STATE: IL
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21662850.03001
SAMPLER NAME(S) (Print): L. Rothman, S. Fussell, D. Mattingly, C. Kretzer
LAB USE ONLY: MC17451

TURNAROUND TIME (CALENDAR DAYS)
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA RWQCB REPORT FORMAT ☐ UST AGENCY
DELIVERABLES ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C° | Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
Please include "J" values on Reports
Plea e provide sample receipt upon login
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-9	TB-ROX-011013-ST	1/10/13	00:00	Water					2	2		X			0	

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Lindsay Rothman	FED EX	1/10/13	17:30
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
	Brussels	1-11-13	930
Relinquished by: (Signature)	Received by: (Signature)	Date	Time

1.3°C

01-2006 Revision

MC17451: Chain of Custody
Page 2 of 3

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17451 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/11/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SO CENTRAL AVENUE No. Coolers: 3 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear.	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

5.1

5

MC17451: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17451

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17451-1 Collected: 10-JAN-13 14:30 By: LRSJ			Received: 11-JAN-13 By:			
MW1-ROX-011013						
MC17451-1	SW846 8270C BY SIM	17-JAN-13 10:56	KR	15-JAN-13	MR	B8270SIMSL
MC17451-1	SW846 8260B	17-JAN-13 12:15	GK			V8260SL+
MC17451-1	SW846 8270C	17-JAN-13 17:13	KR	15-JAN-13	MR	AB8270SL+
MC17451-1	SW846 8011	19-JAN-13 05:51	CZ	17-JAN-13	BJ	V8011SL
MC17451-2 Collected: 10-JAN-13 14:50 By: LRSJ			Received: 11-JAN-13 By:			
MW1-ROX-011013 EB						
MC17451-2	SW846 8270C BY SIM	17-JAN-13 11:20	KR	15-JAN-13	MR	B8270SIMSL
MC17451-2	SW846 8260B	17-JAN-13 12:42	GK			V8260SL+
MC17451-2	SW846 8270C	17-JAN-13 17:36	KR	15-JAN-13	MR	AB8270SL+
MC17451-2	SW846 8011	19-JAN-13 06:16	CZ	17-JAN-13	BJ	V8011SL
MC17451-3 Collected: 10-JAN-13 00:00 By: LRSJ			Received: 11-JAN-13 By:			
TB-011013-HCL						
MC17451-3	SW846 8260B	17-JAN-13 10:53	GK			V8260SL+
MC17451-4 Collected: 10-JAN-13 00:00 By: LRSJ			Received: 11-JAN-13 By:			
TB-011013-ST						
MC17451-4	SW846 8011	19-JAN-13 06:41	CZ	17-JAN-13	BJ	V8011SL
MC17451-5 Collected: 10-JAN-13 10:55 By: LRSJ			Received: 11-JAN-13 By:			
MW12-ROX-011013						
MC17451-5	SW846 8270C BY SIM	17-JAN-13 10:33	KR	15-JAN-13	MR	B8270SIMSL
MC17451-5	SW846 8260B	17-JAN-13 11:48	GK			V8260SL+
MC17451-5	SW846 8260B	17-JAN-13 14:03	GK			V8260SL+
MC17451-5	SW846 8270C	17-JAN-13 16:49	KR	15-JAN-13	MR	AB8270SL+
MC17451-5	SW846 8011	19-JAN-13 02:29	CZ	17-JAN-13	BJ	V8011SL
MC17451-6 Collected: 10-JAN-13 13:55 By: LRSJ			Received: 11-JAN-13 By:			
MW11-ROX-011013						
MC17451-6	SW846 8270C BY SIM	17-JAN-13 11:43	KR	15-JAN-13	MR	B8270SIMSL
MC17451-6	SW846 8260B	17-JAN-13 13:09	GK			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17451

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17451-6	SW846 8270C	17-JAN-13 17:59	KR	15-JAN-13	MR	AB8270SL+
MC17451-6	SW846 8011	19-JAN-13 07:06	CZ	17-JAN-13	BJ	V8011SL
MC17451-6	SW846 8270C BY SIM	22-JAN-13 00:43	KR	15-JAN-13	MR	B8270SIMSL
MC17451-6	SW846 8270C	22-JAN-13 01:07	NS	15-JAN-13	MR	AB8270SL+
MC17451-7 Collected: 10-JAN-13 15:25 By: LRSJ Received: 11-JAN-13 By: MW10-ROX-011013						
MC17451-7	SW846 8270C BY SIM	17-JAN-13 12:07	KR	15-JAN-13	MR	B8270SIMSL
MC17451-7	SW846 8260B	17-JAN-13 13:36	GK			V8260SL+
MC17451-7	SW846 8270C	17-JAN-13 18:23	KR	15-JAN-13	MR	AB8270SL+
MC17451-7	SW846 8011	19-JAN-13 07:32	CZ	17-JAN-13	BJ	V8011SL
MC17451-8 Collected: 10-JAN-13 00:00 By: LRSJ Received: 11-JAN-13 By: TB-ROX-011013-HCL						
MC17451-8	SW846 8260B	17-JAN-13 11:20	GK			V8260SL+
MC17451-9 Collected: 10-JAN-13 00:00 By: LRSJ Received: 11-JAN-13 By: TB-ROX-011013-ST						
MC17451-9	SW846 8011	19-JAN-13 07:57	CZ	17-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/11/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17451-1.1	Walk In Ref #22	Chris Cataldo	01/15/13 22:27	Retrieve from Storage
MC17451-1.1	Chris Cataldo		01/15/13 22:27	Depleted
MC17451-1.4	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-1.4	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-1.6	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-1.6	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-2.2	Walk In Ref #22	Chris Cataldo	01/15/13 22:27	Retrieve from Storage
MC17451-2.2	Chris Cataldo		01/15/13 22:27	Depleted
MC17451-2.4	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-2.4	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-2.5	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-2.5	Gary Krasiuski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-3.2	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-3.2	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-4.1	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-4.1	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-5.1	Walk In Ref #22	Chris Cataldo	01/15/13 22:27	Retrieve from Storage
MC17451-5.1	Chris Cataldo		01/15/13 22:27	Depleted
MC17451-5.2	Walk In Ref #22	Chris Cataldo	01/15/13 22:27	Retrieve from Storage
MC17451-5.2	Chris Cataldo		01/15/13 22:27	Depleted
MC17451-5.4	Walk In Ref #22	Chris Cataldo	01/15/13 22:27	Retrieve from Storage
MC17451-5.4	Chris Cataldo		01/15/13 22:27	Depleted
MC17451-5.7	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-5.7	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-5.9	VOC Ref #1	Bijau Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-5.9	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-5.11	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-5.11	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-5.13	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-5.13	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage

Accutest Internal Chain of Custody

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/11/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17451-5.15	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-5.15	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-5.17	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-5.17	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-5.18	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-5.18	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-6.1	Walk In Ref #22	Chris Cataldo	01/15/13 22:27	Retrieve from Storage
MC17451-6.1	Chris Cataldo		01/15/13 22:27	Depleted
MC17451-6.3	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-6.3	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-6.5	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-6.5	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-7.2	Walk In Ref #22	Chris Cataldo	01/15/13 22:27	Retrieve from Storage
MC17451-7.2	Chris Cataldo		01/15/13 22:27	Depleted
MC17451-7.4	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-7.4	Bijan Jafari		01/17/13 19:07	Depleted
MC17451-7.6	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-7.6	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-8.1	VOC Ref #1	Gary Krasinski	01/17/13 10:19	Retrieve from Storage
MC17451-8.1	Gary Krasinski	VOC Ref #1	01/18/13 08:35	Return to Storage
MC17451-9.2	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17451-9.2	Bijan Jafari		01/17/13 19:07	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2184-MB	K66533.D	1	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbou disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbou tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzeue	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropaue	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2184-MB	K66533.D	1	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Metbyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ng/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ng/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ng/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	1.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2184-MB	K66533.D	1	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethaue	112%	70-130%
2037-26-5	Toluene-D8	108%	70-130%
460-00-4	4-Bromofluorobenzene	108%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2184-BS	K66530.D	1	01/17/13	GK	n/a	n/a	MSK2184
MSK2184-BSD	K66531.D	1	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	57.7	115	55.1	110	5	70-130/25
107-02-8	Acrolein	250	199	80	185	74	7	70-130/25
107-13-1	Acrylonitrile	50	59.6	119	60.1	120	1	70-130/25
71-43-2	Benzene	50	54.0	108	54.8	110	1	70-130/25
108-86-1	Bromobenzene	50	54.5	109	57.5	115	5	70-130/25
74-97-5	Bromochloromethane	50	51.8	104	53.8	108	4	70-130/25
75-27-4	Bromodichloromethane	50	53.0	106	52.9	106	0	70-130/25
75-25-2	Bromoform	50	43.4	87	47.0	94	8	70-130/25
74-83-9	Bromomethane	50	53.4	107	54.3	109	2	70-130/25
78-93-3	2-Butanone (MEK)	50	56.6	113	56.0	112	1	70-130/25
104-51-8	n-Butylbenzene	50	63.7	127	63.4	127	0	70-130/25
135-98-8	sec-Butylbenzene	50	58.6	117	58.4	117	0	70-130/25
98-06-6	tert-Butylbenzene	50	57.6	115	57.7	115	0	70-130/25
75-15-0	Carbon disulfide	50	56.8	114	59.7	119	5	70-130/25
56-23-5	Carbon tetrachloride	50	49.7	99	50.4	101	1	70-130/25
108-90-7	Chlorobenzene	50	46.1	92	48.5	97	5	70-130/25
75-00-3	Chloroethane	50	57.6	115	60.4	121	5	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	19.5	39* a	19.3	39* a	1	70-130/25
67-66-3	Chloroform	50	52.0	104	53.8	108	3	70-130/25
74-87-3	Chloromethane	50	59.4	119	61.6	123	4	70-130/25
95-49-8	o-Chlorotoluene	50	60.4	121	59.8	120	1	70-130/25
106-43-4	p-Chlorotoluene	50	60.1	120	59.0	118	2	70-130/25
124-48-1	Dibromochloromethane	50	49.2	98	52.1	104	6	70-130/25
95-50-1	1,2-Dichlorobenzene	50	51.9	104	53.2	106	2	70-130/25
541-73-1	1,3-Dichlorobenzene	50	51.7	103	52.8	106	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	52.5	105	52.9	106	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	57.8	116	61.1	122	6	70-130/25
75-34-3	1,1-Dichloroethane	50	54.8	110	57.1	114	4	70-130/25
107-06-2	1,2-Dichloroethane	50	51.1	102	51.2	102	0	70-130/25
75-35-4	1,1-Dichloroethene	50	59.5	119	62.9	126	6	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	53.2	106	55.0	110	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	54.6	109	57.3	115	5	70-130/25
78-87-5	1,2-Dichloropropane	50	57.2	114	57.9	116	1	70-130/25
142-28-9	1,3-Dichloropropane	50	53.2	106	53.9	108	1	70-130/25
594-20-7	2,2-Dichloropropane	50	51.0	102	52.1	104	2	70-130/25
563-58-6	1,1-Dichloropropene	50	58.3	117	59.9	120	3	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2184-BS	K66530.D	1	01/17/13	GK	n/a	n/a	MSK2184
MSK2184-BSD	K66531.D	1	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	56.7	113	57.9	116	2	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	61.8	124	60.1	120	3	70-130/25
123-91-1	1,4-Dioxane	250	245	98	277	111	12	70-130/25
97-63-2	Ethyl methacrylate	50	51.6	103	49.4	99	4	77-137/25
100-41-4	Ethylbenzene	50	55.8	112	57.7	115	3	70-130/25
87-68-3	Hexachlorobutadiene	50	51.6	103	53.8	108	4	70-130/25
591-78-6	2-Hexanone	50	54.3	109	51.1	102	6	70-130/25
98-82-8	Isopropylbenzene	50	57.1	114	58.3	117	2	70-130/25
99-87-6	p-Isopropyltoluene	50	58.9	118	59.8	120	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	55.6	111	56.3	113	1	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	53.5	107	51.5	103	4	70-130/25
74-95-3	Methylene bromide	50	51.6	103	52.5	105	2	70-130/25
75-09-2	Methylene chloride	50	55.6	111	57.4	115	3	70-130/25
91-20-3	Naphthalene	50	49.0	98	49.3	99	1	70-130/25
103-65-1	n-Propylbenzene	50	61.2	122	60.6	121	1	70-130/25
100-42-5	Styrene	50	50.5	101	53.0	106	5	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	48.0	96	51.1	102	6	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	58.9	118	55.8	112	5	70-130/25
127-18-4	Tetrachloroethene	50	47.0	94	51.5	103	9	70-130/25
108-88-3	Tolnene	50	59.0	118	59.1	118	0	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	50.4	101	52.2	104	4	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.1	104	54.6	109	5	70-130/25
71-55-6	1,1,1-Tricbloroethane	50	49.7	99	52.4	105	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	55.5	111	53.1	106	4	70-130/25
79-01-6	Trichloroethene	50	51.9	104	53.0	106	2	70-130/25
75-69-4	Trichlorofluoromethane	50	52.5	105	55.0	110	5	70-130/25
96-18-4	1,2,3-Trichloropropane	50	60.3	121	56.9	114	6	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.2	110	55.2	110	0	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	54.2	108	54.1	108	0	70-130/25
108-05-4	Vinyl Acetate	50	53.8	108	54.3	109	1	70-130/25
75-01-4	Vinyl chloride	50	52.9	106	53.1	106	0	70-130/25
	m,p-Xylene	100	113	113	118	118	4	70-130/25
95-47-6	o-Xylene	50	54.1	108	55.7	111	3	70-130/25
1330-20-7	Xylene (total)	150	167	111	173	115	4	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2184-BS	K66530.D	1	01/17/13	GK	n/a	n/a	MSK2184
MSK2184-BSD	K66531.D	1	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	102%	70-130%
2037-26-5	Toluene-D8	112%	111%	70-130%
460-00-4	4-Bromofluorobenzene	116%	113%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17451-5MS	K66544.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5MSD	K66545.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5	K66536.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5	K66541.D	10	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Compound	MC17451-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	350 [b]		50	498	296* [a]	501	302* [a]	1	70-130/30
107-02-8	Acrolein	ND		250	829	332* [c]	904	362* [c]	9	70-130/30
107-13-1	Acrylonitrile	ND		50	55.5	111	57.2	114	3	70-130/30
71-43-2	Benzene	ND		50	51.6	103	52.2	104	1	70-130/30
108-86-1	Bromobenzene	ND		50	52.9	106	52.6	105	1	70-130/30
74-97-5	Bromochloromethane	ND		50	52.4	105	51.8	104	1	70-130/30
75-27-4	Bromodichloromethane	ND		50	49.4	99	50.0	100	1	70-130/30
75-25-2	Bromoform	ND		50	42.5	85	42.3	85	0	70-130/30
74-83-9	Bromomethane	ND		50	51.0	102	50.5	101	1	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	53.7	107	51.0	102	5	70-130/30
104-51-8	n-Butylbenzene	ND		50	57.7	115	58.8	118	2	70-130/30
135-98-8	sec-Butylbenzene	ND		50	53.1	106	55.1	110	4	70-130/30
98-06-6	tert-Butylbenzene	ND		50	52.4	105	52.6	105	0	70-130/30
75-15-0	Carbon disulfide	ND		50	52.8	106	53.6	107	2	70-130/30
56-23-5	Carbon tetrachloride	ND		50	48.1	96	47.9	96	0	70-130/30
108-90-7	Chlorobenzene	ND		50	45.1	90	45.7	91	1	70-130/30
75-00-3	Chloroethane	ND		50	55.6	111	56.5	113	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [c]	ND	0* [c]	nc	70-130/30
67-66-3	Chloroform	ND		50	51.9	104	51.3	103	1	70-130/30
74-87-3	Chloromethane	ND		50	52.3	105	54.8	110	5	70-130/30
95-49-8	o-Chlorotolnene	ND		50	54.9	110	55.5	111	1	70-130/30
106-43-4	p-Chlorotoluene	ND		50	54.5	109	54.7	109	0	70-130/30
124-48-1	Dibromochloromethane	ND		50	48.0	96	47.1	94	2	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	49.0	98	49.3	99	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	49.2	98	49.5	99	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	50.1	100	50.0	100	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	53.5	107	53.2	106	1	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	54.2	108	55.0	110	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	48.4	97	48.3	97	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	57.7	115	58.8	118	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	52.0	104	51.9	104	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	52.4	105	54.3	109	4	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	52.9	106	54.8	110	4	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	49.5	99	50.3	101	2	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	49.8	100	49.5	99	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	53.9	108	55.6	111	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17451-5MS	K66544.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5MSD	K66545.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5	K66536.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5	K66541.D	10	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Compound	MC17451-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	51.3	103	52.1	104	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	52.6	105	53.6	107	2	70-130/30
123-91-1	1,4-Dioxane	ND		250	219	88	245	98	11	70-130/30
97-63-2	Ethyl methacrylate	ND		50	46.9	94	47.2	94	1	72-139/30
100-41-4	Ethylbenzene	ND		50	53.6	107	55.2	110	3	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	48.8	98	49.4	99	1	70-130/30
591-78-6	2-Hexanone	ND		50	47.0	94	50.0	100	6	70-130/30
98-82-8	Isopropylbenzene	ND		50	51.8	104	53.2	106	3	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	55.0	110	55.5	111	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.4	103	53.6	107	4	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	48.9	98	49.5	99	1	70-130/30
74-95-3	Methylene bromide	ND		50	49.0	98	50.0	100	2	70-130/30
75-09-2	Methylene chloride	ND		50	54.8	110	54.4	109	1	70-130/30
91-20-3	Naphthalene	ND		50	46.0	92	47.3	95	3	70-130/30
103-65-1	n-Propylbenzene	ND		50	55.3	111	56.8	114	3	70-130/30
100-42-5	Styrene	ND		50	43.8	88	44.7	89	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	48.8	98	49.3	99	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	53.9	108	54.2	108	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	47.3	95	47.8	96	1	70-130/30
108-88-3	Tolnene	0.89	J	50	56.5	111	57.0	112	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	47.4	95	49.4	99	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	49.4	99	50.5	101	2	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	50.1	100	49.5	99	1	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	50.2	100	51.2	102	2	70-130/30
79-01-6	Trichloroethene	ND		50	49.5	99	50.8	102	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	52.7	105	52.4	105	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	51.6	103	52.3	105	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	49.1	98	49.9	100	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	48.5	97	49.9	100	3	70-130/30
108-05-4	Vinyl Acetate	ND		50	47.8	96	48.7	97	2	70-130/30
75-01-4	Vinyl chloride	ND		50	46.3	93	49.1	98	6	70-130/30
	m,p-Xylene	ND		100	110	110	112	112	2	70-130/30
95-47-6	o-Xylene	ND		50	51.9	104	53.0	106	2	70-130/30
1330-20-7	Xylene (total)	ND		150	161	107	165	110	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17451-5MS	K66544.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5MSD	K66545.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5	K66536.D	1	01/17/13	GK	n/a	n/a	MSK2184
MC17451-5	K66541.D	10	01/17/13	GK	n/a	n/a	MSK2184

The QC reported here applies to the following samples: Method: SW846 8260B

MC17451-1, MC17451-2, MC17451-3, MC17451-5, MC17451-6, MC17451-7, MC17451-8

CAS No.	Surrogate Recoveries	MS	MSD	MC17451-5	MC17451-5	Limits
1868-53-7	Dibromofluoromethane	108%	103%	115%	116%	70-130%
2037-26-5	Toluene-D8	109%	109%	110%	111%	70-130%
460-00-4	4-Bromofluorobenzene	110%	108%	106%	110%	70-130%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Result is from Run #2.
(c) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2184-CC2177	Injection Date:	01/17/13
Lab File ID:	K66529.D	Injection Time:	08:36
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	131405	8.81	201843	9.66	95113	12.92	103632	15.48	20787	6.40
Upper Limit [a]	262810	9.31	403686	10.16	190226	13.42	207264	15.98	41574	6.90
Lower Limit [b]	65703	8.31	100922	9.16	47557	12.42	51816	14.98	10394	5.90
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2184-BS	135844	8.82	212322	9.66	103797	12.92	105318	15.48	23487	6.41
MSK2184-BSD	138574	8.82	218846	9.66	104325	12.92	109787	15.48	24821	6.41
MSK2184-MB	129062	8.82	206053	9.67	89787	12.92	98965	15.48	21917	6.40
MC17451-3	127859	8.82	204976	9.67	89783	12.92	97692	15.48	20257	6.40
MC17451-8	127448	8.82	202050	9.67	87397	12.92	96594	15.48	21584	6.40
MC17451-5	122586	8.82	197774	9.67	86381	12.92	97340	15.48	20408	6.40
MC17451-1	123558	8.82	199322	9.67	86795	12.93	94930	15.48	19394	6.41
MC17451-2	122077	8.82	196758	9.67	86050	12.93	93932	15.48	20406	6.41
MC17451-6	130860	8.82	205006	9.66	86313	12.92	94352	15.48	20041	6.40
MC17451-7	129876	8.82	204803	9.66	89555	12.92	95270	15.48	21500	6.40
MC17451-5	116795	8.82	190401	9.67	86364	12.93	90792	15.48	18285	6.40
ZZZZZZ	113854	8.82	185177	9.66	82906	12.92	89906	15.48	18182	6.40
ZZZZZZ	113376	8.82	183597	9.67	83049	12.93	89985	15.48	18764	6.40
MC17451-5MS	123915	8.82	202254	9.66	96592	12.92	104696	15.48	20434	6.40
MC17451-5MSD	131876	8.82	210683	9.66	100312	12.92	108312	15.48	22684	6.40
ZZZZZZ	130888	8.82	217000	9.66	93909	12.92	106894	15.48	23192	6.40
ZZZZZZ	138040	8.82	220134	9.66	97728	12.92	108819	15.48	22560	6.40
ZZZZZZ	145711	8.82	225531	9.66	99119	12.92	110044	15.48	25170	6.40
ZZZZZZ	133206	8.82	212887	9.67	93396	12.92	102371	15.48	23041	6.41
ZZZZZZ	140427	8.82	219052	9.66	95558	12.92	109268	15.48	23104	6.40
ZZZZZZ	139266	8.81	215906	9.66	97886	12.92	110989	15.48	26172	6.41
ZZZZZZ	140042	8.81	213571	9.66	105385	12.92	113086	15.48	26228	6.40
ZZZZZZ	146302	8.81	233948	9.66	100410	12.92	110519	15.48	25087	6.40
ZZZZZZ	149414	8.82	219402	9.66	103157	12.92	118189	15.48	26152	6.41
ZZZZZZ	155243	8.82	223368	9.67	103729	12.92	116056	15.48	27960	6.41

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17451-1	K66537.D	115.0	107.0	108.0
MC17451-2	K66538.D	116.0	107.0	107.0
MC17451-3	K66534.D	114.0	109.0	108.0
MC17451-5	K66541.D	116.0	111.0	110.0
MC17451-5	K66536.D	115.0	110.0	106.0
MC17451-6	K66539.D	106.0	107.0	113.0
MC17451-7	K66540.D	106.0	109.0	112.0
MC17451-8	K66535.D	111.0	108.0	108.0
MC17451-5MS	K66544.D	108.0	109.0	110.0
MC17451-5MSD	K66545.D	103.0	109.0	108.0
MSK2184-BS	K66530.D	102.0	112.0	116.0
MSK2184-BSD	K66531.D	102.0	111.0	113.0
MSK2184-MB	K66533.D	112.0	108.0	108.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Ceutral Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31700-MB	W8691.D	1	01/17/13	KR	01/15/13	OP31700	MSW409

The QC reported here applies to the following samples: Method: SW846 8270C

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ng/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniliue	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylbydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobeuzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31700-MB	W8691.D	1	01/17/13	KR	01/15/13	OP31700	MSW409

The QC reported here applies to the following samples: Method: SW846 8270C

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ng/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	38%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	15-110%
4165-60-0	Nitrobenzene-d5	60%	30-130%
321-60-8	2-Fluorobiphenyl	55%	30-130%
1718-51-0	Terphenyl-d14	69%	30-130%

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

7.1.1

7

Method Blank Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31701-MB	W8674.D	1	01/17/13	KR	01/15/13	OP31701	MSW408

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ng/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	40%	15-110%
4165-62-2	Phenol-d5	29%	15-110%
118-79-6	2,4,6-Tribromophenol	82%	15-110%
4165-60-0	Nitrobenzene-d5	63%	30-130%
321-60-8	2-Fluorobiphenyl	61%	30-130%
1718-51-0	Terphenyl-d14	89%	30-130%

Blank Spike Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31700-BS	W8692.D	1	01/17/13	KR	01/15/13	OP31700	MSW409

The QC reported here applies to the following samples: Method: SW846 8270C

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	45.1	45	30-130
95-57-8	2-Chlorophenol	100	70.8	71	30-130
59-50-7	4-Chloro-3-methyl phenol	100	79.5	80	30-130
120-83-2	2,4-Dichlorophenol	100	78.1	78	30-130
105-67-9	2,4-Dimethylphenol	100	48.6	49	30-130
51-28-5	2,4-Dinitrophenol	100	75.0	75	30-130
534-52-1	4,6-Dinitro-o-cresol	100	79.4	79	30-130
95-48-7	2-Methylphenol	100	66.5	67	30-130
	3&4-Methylphenol	200	127	64	30-130
88-75-5	2-Nitrophenol	100	77.0	77	30-130
100-02-7	4-Nitrophenol	100	41.3	41	30-130
87-86-5	Pentachlorophenol	100	87.8	88	30-130
108-95-2	Phenol	100	34.4	34	30-130
95-95-4	2,4,5-Trichlorophenol	100	84.0	84	30-130
88-06-2	2,4,6-Trichlorophenol	100	83.6	84	30-130
62-53-3	Aniline	50	19.2	38* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	35.0	70	40-140
85-68-7	Butyl benzyl phthalate	50	30.3	61	40-140
100-51-6	Benzyl Alcohol	50	33.0	66	40-140
91-58-7	2-Chloronaphthalene	50	33.5	67	40-140
106-47-8	4-Chloroaniline	50	28.9	58	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	30.7	61	40-140
111-44-4	bis(2-Chloroethyl)ether	50	33.6	67	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	39.7	79	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	36.6	73	40-140
122-66-7	1,2-Diphenylhydrazine	50	34.5	69	40-140
121-14-2	2,4-Dinitrotoluene	50	40.5	81	40-140
606-20-2	2,6-Dinitrotoluene	50	38.6	77	40-140
91-94-1	3,3'-Dichlorobenzidine	50	36.7	73	40-140
132-64-9	Dibenzofuran	50	32.9	66	40-140
84-74-2	Di-n-bntyl phthalate	50	34.1	68	40-140
117-84-0	Di-n-octyl phthalate	50	39.3	79	40-140
84-66-2	Diethyl phthalate	50	31.2	62	40-140
131-11-3	Dimethyl phthalate	50	17.8	36* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	37.2	74	40-140
118-74-1	Hexachlorobenzene	50	37.1	74	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31700-BS	W8692.D	1	01/17/13	KR	01/15/13	OP31700	MSW409

The QC reported here applies to the following samples: Method: SW846 8270C

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	15.6	31* a	40-140
67-72-1	Hexachloroethane	50	26.4	53	40-140
78-59-1	Isophorone	50	38.4	77	40-140
88-74-4	2-Nitroaniline	50	38.5	77	40-140
99-09-2	3-Nitroaniline	50	30.5	61	40-140
100-01-6	4-Nitroaniline	50	34.8	70	40-140
98-95-3	Nitrobenzene	50	35.3	71	40-140
62-75-9	n-Nitrosodimethylamine	50	23.3	47	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	38.6	77	40-140
86-30-6	N-Nitrosodiphenylamine	50	35.9	72	40-140
110-86-1	Pyridine	50	18.1	36* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	47%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	91%	15-110%
4165-60-0	Nitrobenzene-d5	69%	30-130%
321-60-8	2-Fluorobiphenyl	63%	30-130%
1718-51-0	Terphenyl-d14	73%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31701-BS	W8675.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
OP31701-BSD	W8676.D	1	01/17/13	KR	01/15/13	OP31701	MSW408

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50	35.0	70	33.3	67	5	40-140/30
208-96-8	Acenaphthylene	50	26.5	53	25.2	50	5	40-140/30
120-12-7	Anthracene	50	38.3	77	35.5	71	8	40-140/30
56-55-3	Benzo(a)anthracene	50	38.8	78	36.5	73	6	40-140/30
50-32-8	Benzo(a)pyrene	50	33.0	66	30.9	62	7	40-140/30
205-99-2	Benzo(b)fluoranthene	50	35.2	70	33.2	66	6	40-140/30
191-24-2	Benzo(g,h,i)perylene	50	37.8	76	34.9	70	8	40-140/30
207-08-9	Benzo(k)flnoranthene	50	39.6	79	37.1	74	7	40-140/30
218-01-9	Chrysene	50	38.1	76	35.5	71	7	40-140/30
53-70-3	Dibenzo(a,h)anthracene	50	39.2	78	36.3	73	8	40-140/30
206-44-0	Fluoranthene	50	39.4	79	37.1	74	6	40-140/30
86-73-7	Fluorene	50	39.1	78	36.7	73	6	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.0	78	36.1	72	8	40-140/30
90-12-0	1-Methylnaphthalene	50	35.8	72	34.7	69	3	40-140/30
91-57-6	2-Methylnaphthaleue	50	34.5	69	33.6	67	3	40-140/30
85-01-8	Phenanthrene	50	36.9	74	34.5	69	7	40-140/30
129-00-0	Pyrene	50	37.1	74	34.7	69	7	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	47%	45%	15-110%
4165-62-2	Phenol-d5	35%	33%	15-110%
118-79-6	2,4,6-Tribromophenol	105%	103%	15-110%
4165-60-0	Nitrobenzene-d5	71%	70%	30-130%
321-60-8	2-Flnorobiphenyl	72%	70%	30-130%
1718-51-0	Terphenyl-d14	94%	91%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31700-MS	W8693.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
OP31700-MSD	W8694.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
MC17451-5	W8695.D	1	01/17/13	KR	01/15/13	OP31700	MSW409

The QC reported here applies to the following samples: Method: SW846 8270C

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	MC17451-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	42.1	42	42.4	42	1	30-130/20
95-57-8	2-Chlorophenol	ND		100	55.0	55	58.6	59	6	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	64.1	64	68.2	68	6	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	61.6	62	65.1	65	6	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	38.3	38	45.5	46	17	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	79.1	79	82.6	83	4	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	78.3	78	80.1	80	2	30-130/20
95-48-7	2-Methylphenol	ND		100	49.6	50	56.9	57	14	30-130/20
	3&4-Methylphenol	ND		200	99.2	50	111	56	11	30-130/20
88-75-5	2-Nitrophenol	ND		100	66.3	66	69.9	70	5	30-130/20
100-02-7	4-Nitrophenol	ND		100	40.1	40	40.1	40	0	30-130/20
87-86-5	Pentachlorophenol	ND		100	86.3	86	85.8	86	1	30-130/20
108-95-2	Phenol	ND		100	30.4	30	32.7	33	7	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	75.5	76	76.2	76	1	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	71.6	72	73.2	73	2	30-130/20
62-53-3	Aniline	ND		50	15.3	31* a	17.9	36* a	16	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	30.0	60	33.5	67	11	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	32.0	64	33.9	68	6	40-140/20
100-51-6	Benzyl Alcohol	ND		50	25.1	50	28.7	57	13	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	27.5	55	32.0	64	15	40-140/20
106-47-8	4-Chloroaniline	ND		50	24.7	49	28.6	57	15	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	23.9	48	28.4	57	17	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	25.1	50	30.2	60	18	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	29.8	60	35.7	71	18	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	31.3	63	36.4	73	15	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	29.3	59	32.1	64	9	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	35.8	72	39.7	79	10	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	33.2	66	37.6	75	12	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	33.5	67	37.3	75	11	40-140/20
132-64-9	Dibenzofuran	ND		50	28.2	56	32.0	64	13	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	31.7	63	34.8	70	9	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	34.4	69	36.4	73	6	40-140/20
84-66-2	Diethyl phthalate	ND		50	34.1	68	37.2	74	9	40-140/20
131-11-3	Dimethyl phthalate	ND		50	31.3	63	35.0	70	11	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	31.5	63	33.6	67	6	40-140/20
118-74-1	Hexachlorobenzene	ND		50	30.6	61	35.4	71	15	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31700-MS	W8693.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
OP31700-MSD	W8694.D	1	01/17/13	KR	01/15/13	OP31700	MSW409
MC17451-5	W8695.D	1	01/17/13	KR	01/15/13	OP31700	MSW409

The QC reported here applies to the following samples: Method: SW846 8270C

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

CAS No.	Compound	MC17451-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	14.2	28* a	16.5	33* a	15	40-140/20
67-72-1	Hexachloroethane	ND		50	22.1	44	26.1	52	17	40-140/20
78-59-1	Isophorone	ND		50	31.0	62	36.0	72	15	40-140/20
88-74-4	2-Nitroaniline	ND		50	34.1	68	37.9	76	11	40-140/20
99-09-2	3-Nitroaniline	ND		50	28.3	57	30.1	60	6	40-140/20
100-01-6	4-Nitroaniline	ND		50	31.3	63	35.7	71	13	40-140/20
98-95-3	Nitrobenzene	ND		50	26.4	53	31.7	63	18	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	17.8	36* a	20.4	41	14	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	30.2	60	36.5	73	19	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	31.3	63	34.7	69	10	40-140/20
110-86-1	Pyridine	ND		50	14.2	28* a	16.9	34* a	17	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17451-5	Limits
367-12-4	2-Fluorophenol	34%	37%	27%	15-110%
4165-62-2	Phenol-d5	28%	32%	24%	15-110%
118-79-6	2,4,6-Tribromophenol	77%	76%	54%	15-110%
4165-60-0	Nitrobenzene-d5	54%	64%	51%	30-130%
321-60-8	2-Fluorobiphenyl	51%	60%	48%	30-130%
1718-51-0	Terphenyl-d14	60%	67%	62%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31701-MS	W8677.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
OP31701-MSD	W8678.D	1	01/17/13	KR	01/15/13	OP31701	MSW408
MC17451-5	W8679.D	1	01/17/13	KR	01/15/13	OP31701	MSW408

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17451-1, MC17451-2, MC17451-5, MC17451-6, MC17451-7

7.4.2

7

CAS No.	Compound	MC17451-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	29.4	59	33.6	67	13	40-140/20
208-96-8	Acenaphthylene	ND		50	22.1	44	25.4	51	14	40-140/20
120-12-7	Anthracene	ND		50	32.9	66	36.7	73	11	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	32.7	65	36.6	73	11	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	27.0	54	30.4	61	12	40-140/20
205-99-2	Benzo(b)fluoranthene	0.026	J	50	29.7	59	33.8	68	13	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	31.8	64	35.9	72	12	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	33.1	66	36.3	73	9	40-140/20
218-01-9	Chrysene	ND		50	31.9	64	35.7	71	11	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	33.4	67	37.1	74	10	40-140/20
206-44-0	Fluoranthene	0.045	J	50	33.3	67	37.4	75	12	40-140/20
86-73-7	Fluorene	ND		50	33.5	67	37.1	74	10	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	33.1	66	37.0	74	11	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	29.6	59	33.8	68	13	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	28.6	57	32.7	65	13	40-140/20
85-01-8	Phenanthrene	0.032	J	50	32.2	64	35.8	72	11	40-140/20
129-00-0	Pyrene	ND		50	31.2	62	35.3	71	12	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17451-5	Limits
367-12-4	2-Fluorophenol	35%	37%	27%	15-110%
4165-62-2	Phenol-d5	31%	34%	26%	15-110%
118-79-6	2,4,6-Tribromophenol	91%	81%	63%	15-110%
4165-60-0	Nitrobenzene-d5	57%	66%	53%	30-130%
321-60-8	2-Fluorobiphenyl	58%	66%	52%	30-130%
1718-51-0	Terphenyl-d14	77%	86%	80%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW408-CC383	Injection Date:	01/17/13
Lab File ID:	W8673.D	Injection Time:	08:12
Instrument ID:	GCMSW	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	81018	4.16	307616	5.15	183891	6.61	333297	7.97	408911	10.75	550216	12.24
Upper Limit [a]	162036	4.66	615232	5.65	367782	7.11	666594	8.47	817822	11.25	1100432	12.74
Lower Limit [b]	40509	3.66	153808	4.65	91946	6.11	166649	7.47	204456	10.25	275108	11.74
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31701-MB	81950	4.16	310607	5.15	183995	6.61	333198	7.97	389399	10.75	528956	12.24
OP31701-BS	99544	4.16	382509	5.16	225604	6.61	407277	7.97	496771	10.76	676765	12.24
OP31701-BSD	112385	4.16	424644	5.16	251345	6.61	451073	7.97	541317	10.76	725588	12.24
OP31701-MS	113266	4.16	429310	5.16	259644	6.61	464730	7.97	579719	10.76	809951	12.25
OP31701-MSD	81086	4.16	308485	5.16	181416	6.61	325460	7.97	396373	10.76	544583	12.24
MC17451-5	93173	4.16	358923	5.15	213478	6.61	383125	7.97	452746	10.75	629789	12.24
MC17451-1	131249	4.16	499740	5.15	299065	6.61	547123	7.97	670331	10.76	937533	12.24
MC17451-2	85114	4.16	329051	5.15	195641	6.61	351076	7.97	417738	10.75	574616	12.24
MC17451-6	84985	4.16	325512	5.15	195454	6.61	355997	7.97	422613	10.75	584821	12.24
MC17451-7	79111	4.16	304538	5.15	177698	6.61	323959	7.97	382207	10.75	524428	12.24
ZZZZZZ	79862	4.16	304510	5.15	182600	6.61	331940	7.97	388425	10.75	542189	12.24
ZZZZZZ	85723	4.16	328123	5.15	194782	6.61	351342	7.97	421731	10.75	577226	12.24

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minntes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW410-CC383	Injection Date:	01/17/13
Lab File ID:	W8687.D	Injection Time:	13:41
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	1S 2 AREA	RT	IS 3 AREA	RT	1S 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	84891	4.16	324276	5.15	194036	6.61	354782	7.97	422915	10.76	562334	12.24
Upper Limit [a]	169782	4.66	648552	5.65	388072	7.11	709564	8.47	845830	11.26	1124668	12.74
Lower Limit [b]	42446	3.66	162138	4.65	97018	6.11	177391	7.47	211458	10.26	281167	11.74
Lab Sample ID	1S 1 AREA	RT	IS 2 AREA	RT	1S 3 AREA	RT	1S 4 AREA	RT	IS 5 AREA	RT	1S 6 AREA	RT
OP31703-MB	70966	4.16	275821	5.15	165781	6.60	299191	7.96	330080	10.92	313586	12.51
OP31703-BS	77862	4.16	304983	5.15	186206	6.61	336247	7.97	389808	10.92	372122	12.51
OP31700-MB	64577	4.16	254288	5.15	155645	6.60	287301	7.96	327304	10.92	312435	12.50
OP31700-BS	65174	4.16	252331	5.15	156723	6.60	278370	7.97	334728	10.92	321793	12.51
OP31700-MS	69458	4.16	269461	5.15	166320	6.61	301626	7.97	363362	10.92	342767	12.51
OP31700-MSD	87045	4.16	341255	5.15	211120	6.61	386469	7.97	475452	10.92	446957	12.51
MC17451-5	63671	4.16	252649	5.15	155350	6.60	283359	7.96	325714	10.91	317694	12.50
MC17451-1	65578	4.16	258546	5.15	159844	6.60	293084	7.96	341036	10.91	328408	12.50
MC17451-2	77593	4.16	304851	5.15	190423	6.60	347935	7.96	410421	10.92	396485	12.51
MC17451-6	102090	4.16	393696	5.15	245561	6.60	457487	7.97	543660	10.92	526497	12.51
MC17451-7	60428	4.16	236962	5.15	145659	6.60	267694	7.96	308843	10.92	296621	12.50
ZZZZZZ	61938	4.16	243913	5.15	149578	6.60	273723	7.96	320504	10.92	313907	12.51
ZZZZZZ	67331	4.16	262118	5.15	159897	6.60	296595	7.96	343519	10.92	333888	12.51
ZZZZZZ	98979	4.16	380425	5.15	226879	6.61	415617	7.97	496617	10.75	682668	12.24
ZZZZZZ	89192	4.16	346547	5.15	203526	6.61	372861	7.97	437578	10.75	593557	12.24
ZZZZZZ	88858	4.16	342299	5.15	202398	6.61	367362	7.97	423789	10.75	572391	12.24
ZZZZZZ	95669	4.16	370287	5.15	218312	6.61	400444	7.97	474418	10.75	636847	12.24
ZZZZZZ	106520	4.16	406957	5.15	243319	6.61	441309	7.97	525154	10.75	709129	12.24
ZZZZZZ	92478	4.16	355076	5.15	210343	6.61	386399	7.97	457465	10.75	616949	12.24
ZZZZZZ	86620	4.16	334235	5.15	195948	6.61	353695	7.96	421856	10.75	559595	12.24
ZZZZZZ	80681	4.16	310146	5.15	182828	6.61	331143	7.97	392873	10.75	523446	12.24
ZZZZZZ	95826	4.16	377580	5.15	224368	6.61	402264	7.96	468771	10.75	623478	12.24
ZZZZZZ	69910	4.16	277170	5.15	170405	6.60	309052	7.96	354042	10.92	341926	12.51
ZZZZZZ	67440	4.16	265190	5.15	164338	6.60	299389	7.96	356633	10.92	354005	12.51
ZZZZZZ	82744	4.16	322393	5.15	202693	6.60	369048	7.97	437378	10.92	433597	12.51
ZZZZZZ	78858	4.16	308404	5.15	193084	6.60	350814	7.96	430166	10.92	440021	12.51
ZZZZZZ	72046	4.16	282078	5.15	176795	6.60	323256	7.97	383988	10.92	387447	12.51

IS 1 = 1,4-Dichlorobenzene-d4
1S 2 = Naphthalene-d8
1S 3 = Acenaphthene-D10
1S 4 = Phenanthrene-d10
1S 5 = Chrysene-d12
IS 6 = Perylene-d12

7.5.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW410-CC383	Injection Date:	01/17/13
Lab File ID:	W8687.D	Injection Time:	13:41
Instrument ID:	GCMSW	Method:	SW846 8270C

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW414-CC399	Injection Date:	01/21/13
Lab File ID:	W8782.D	Injection Time:	14:32
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	67301	4.15	259252	5.15	161990	6.59	287453	7.96	356586	10.91	316099	12.50
Upper Limit [a]	134602	4.65	518504	5.65	323980	7.09	574906	8.46	713172	11.41	632198	13.00
Lower Limit [b]	33651	3.65	129626	4.65	80995	6.09	143727	7.46	178293	10.41	158050	12.00
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31743-MB	69736	4.15	267267	5.15	166274	6.59	306730	7.96	354781	10.91	342518	12.50
OP31743-BS	69291	4.15	267762	5.15	163098	6.59	289880	7.96	336349	10.91	310476	12.50
OP31743-MS	74962	4.15	285740	5.15	177533	6.59	314928	7.96	371045	10.91	350796	12.50
OP31743-MSD	69733	4.15	270392	5.15	166910	6.59	295986	7.96	352300	10.91	323214	12.50
MC17700-4	68933	4.15	267502	5.15	162255	6.59	299419	7.96	337673	10.91	321860	12.50
ZZZZZZ	71912	4.15	285264	5.15	177117	6.59	316102	7.96	367977	10.91	349136	12.50
ZZZZZZ	71143	4.15	276443	5.15	174159	6.59	311866	7.96	367048	10.91	341115	12.50
ZZZZZZ	71233	4.15	274447	5.15	176016	6.59	317783	7.96	377009	10.91	354982	12.50
ZZZZZZ	67799	4.15	265805	5.15	166024	6.59	298434	7.96	355582	10.91	339813	12.50
ZZZZZZ	72938	4.15	280392	5.15	177818	6.59	328048	7.96	390848	10.91	372705	12.50
ZZZZZZ	72469	4.15	278462	5.15	174314	6.59	316862	7.96	367519	10.91	349888	12.50
ZZZZZZ	71050	4.15	276439	5.15	176316	6.59	320330	7.96	368173	10.91	352114	12.50
ZZZZZZ	73300	4.15	282353	5.15	180818	6.59	330838	7.96	394238	10.91	379925	12.50
ZZZZZZ	71925	4.15	273777	5.15	168886	6.59	310556	7.96	364043	10.91	341766	12.50
ZZZZZZ	71371	4.15	274917	5.15	170733	6.59	309529	7.96	366549	10.91	345401	12.50
ZZZZZZ	67333	4.15	261118	5.15	162025	6.59	298344	7.96	346013	10.91	332558	12.50
ZZZZZZ	75254	4.15	291651	5.15	184510	6.59	339094	7.96	395535	10.91	368771	12.50
ZZZZZZ	68677	4.15	263494	5.15	167128	6.59	304683	7.96	358400	10.91	344595	12.50
ZZZZZZ	69968	4.15	277112	5.15	187033	6.60	336476	7.96	381483	10.91	367578	12.50
ZZZZZZ	75910	4.15	291055	5.15	182503	6.59	327874	7.96	375987	10.91	360213	12.50
MC17451-6 [c]	112216	4.16	432635	5.15	263705	6.60	477413	7.96	571569	10.75	781739 [d]	12.23
MC17451-6 [c]	85557	4.15	334800	5.15	210398	6.59	386358	7.96	455165	10.91	429815	12.50

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Confirmation run for surrogate recoveries.
(d) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

7.5.3

7

Semivolatile Surrogate Recovery Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17451-1	W8696.D	40.0	36.0	70.0	63.0	57.0	58.0
MC17451-2	W8697.D	34.0	24.0	73.0	58.0	53.0	71.0
MC17451-5	W8695.D	27.0	24.0	54.0	51.0	48.0	62.0
MC17451-6	W8809.D	16.0	13.0* [a]	64.0	53.0	48.0	64.0
MC17451-6	W8698.D	17.0	13.0* [a]	65.0	53.0	48.0	65.0
MC17451-7	W8699.D	32.0	24.0	80.0	61.0	56.0	68.0
OP31700-BS	W8692.D	47.0	33.0	91.0	69.0	63.0	73.0
OP31700-MB	W8691.D	38.0	27.0	72.0	60.0	55.0	69.0
OP31700-MS	W8693.D	34.0	28.0	77.0	54.0	51.0	60.0
OP31700-MSD	W8694.D	37.0	32.0	76.0	64.0	60.0	67.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Semivolatile Surrogate Recovery Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17451-1	W8680.D	40.0	39.0	84.0	67.0	64.0	76.0
MC17451-2	W8681.D	36.0	26.0	82.0	61.0	58.0	93.0
MC17451-5	W8679.D	27.0	26.0	63.0	53.0	52.0	80.0
MC17451-6	W8808.D	17.0	14.0* [a]	75.0	55.0	53.0	86.0
MC17451-6	W8682.D	18.0	14.0* [a]	71.0	56.0	53.0	83.0
MC17451-7	W8683.D	32.0	26.0	92.0	63.0	62.0	88.0
OP31701-BS	W8675.D	47.0	35.0	105.0	71.0	72.0	94.0
OP31701-BSD	W8676.D	45.0	33.0	103.0	70.0	70.0	91.0
OP31701-MB	W8674.D	40.0	29.0	82.0	63.0	61.0	89.0
OP31701-MS	W8677.D	35.0	31.0	91.0	57.0	58.0	77.0
OP31701-MSD	W8678.D	37.0	34.0	81.0	66.0	66.0	86.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-MB	YZ77925.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17451-1, MC17451-2, MC17451-4, MC17451-5, MC17451-6, MC17451-7, MC17451-9

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	111%	36-173%
460-00-4	Bromofluorobenzene (S)	120%	36-173%

Blank Spike Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-BS	YZ77926.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17451-1, MC17451-2, MC17451-4, MC17451-5, MC17451-6, MC17451-7, MC17451-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.081	114	60-140
106-93-4	1,2-Dibromoethane	0.071	0.066	93	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	114%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	36-173%

8.2.1

8

* = Ontside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-MS1	YZ77927.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
OP31715-MSD1	YZ77928.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
MC17451-5	YZ77929.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17451-1, MC17451-2, MC17451-4, MC17451-5, MC17451-6, MC17451-7, MC17451-9

CAS No.	Compound	MC17451-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0683	0.068	100	0.052	78	27	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0683	0.060	88	0.044	66	31* [a]	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17451-5	Limits
460-00-4	Bromofluorobenzene (S)	108%	84%	121%	36-173%
460-00-4	Bromofluorobenzene (S)	107%	84%	123%	36-173%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17451-1	YZ77937.D	109.0	106.0
MC17451-2	YZ77938.D	115.0	112.0
MC17451-4	YZ77939.D	111.0	110.0
MC17451-5	YZ77929.D	121.0	123.0
MC17451-6	YZ77940.D	131.0	121.0
MC17451-7	YZ77941.D	139.0	134.0
MC17451-9	YZ77942.D	131.0	129.0
OP31715-BS	YZ77926.D	114.0	121.0
OP31715-MB	YZ77925.D	111.0	120.0
OP31715-MS1	YZ77927.D	108.0	107.0
OP31715-MSD1	YZ77928.D	84.0	84.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7020-CC7019	Injection Date:	01/19/13
Lab File ID:	YZ77924A.D	Injection Time:	00:23
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31715-MB	YZ77925.D	01/19/13	00:48	3.48	3.76
OP31715-BS	YZ77926.D	01/19/13	01:13	3.48	3.76
OP31715-MS1	YZ77927.D	01/19/13	01:39	3.48	3.76
OP31715-MSD1	YZ77928.D	01/19/13	02:04	3.48	3.76
MC17451-5	YZ77929.D	01/19/13	02:29	3.48	3.76
OP31715-MS2	YZ77930.D	01/19/13	02:54	3.48	3.76
OP31715-MSD2	YZ77931.D	01/19/13	03:19	3.48	3.76
MC17505-7	YZ77932.D	01/19/13	03:45	3.48	3.76
ZZZZZZ	YZ77933.D	01/19/13	04:10	3.48	3.76
ZZZZZZ	YZ77934.D	01/19/13	04:35	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17451
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7020-CC7019	Injection Date:	01/19/13
Lab File ID:	YZ77935.D	Injection Time:	05:00
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	YZ77936.D	01/19/13	05:25	3.48	3.76
MC17451-1	YZ77937.D	01/19/13	05:51	3.48	3.76
MC17451-2	YZ77938.D	01/19/13	06:16	3.48	3.76
MC17451-4	YZ77939.D	01/19/13	06:41	3.48	3.76
MC17451-6	YZ77940.D	01/19/13	07:06	3.48	3.76
MC17451-7	YZ77941.D	01/19/13	07:32	3.48	3.76
MC17451-9	YZ77942.D	01/19/13	07:57	3.48	3.76
ZZZZZZ	YZ77943.D	01/19/13	08:22	3.48	3.76
ZZZZZZ	YZ77944.D	01/19/13	08:48	3.48	3.76
ZZZZZZ	YZ77945.D	01/19/13	09:13	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17505

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/18/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW2-ROX-011113	MW4-ROX-011113
MW5-ROX-011113	MW4-ROX-011113-Dup
TB-011113-HCL	TB-011113-ST
P54-ROX-011113	ROST4PZ(C)-ROX-011113
MW9-ROX-011113	TB-ROX-011113-HCL
TB-ROX-011113-ST	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. VOC and SVOC MS/MSD recoveries were outside evaluation criteria in sample P54-ROX-011113. Internal standard area recovery for tert butyl alcohol-d_9 in Run#2 results for field duplicate pair MW4-ROX-011113/MW4-ROX-011113-Dup was outside evaluation criteria. Sample MW2-ROX-011113 and field duplicate pair MW4-ROX-011113/MW4-ROX-011113-Dup were diluted due to high levels of VOC target analytes. Additionally, the continuing calibration verification for acrolein exceeded 50 percent difference (%D). Professional judgment was used to qualify acetone in sample MW9-ROX-011113. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated two of three coolers were received by the laboratory at temperatures of 1.2ºC and 1.9ºC, which are outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required. Additionally, the laboratory issued a letter indicating that VOC samples, including trip blanks, were received headspace free, and that the cooler receipt form had been incorrectly marked as not applicable with regards to trip blanks and VOC headspace.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2185-BS/BSD	VOCs	n-Butylbenzene	128/**133**	3	70-130/25
MSK2158-BS/BSD	VOCs	2-Chloroethyl vinyl ether	**39/39**	1	70-130/25
MSK2187-BS/BSD	VOCs	Acetone	**147**/120	20	70-130/25
MSK2187-BS/BSD	VOCs	Acrolein	**69**/74	7	70-130/25
MSK2187-BS/BSD	VOCs	Acrylonitrile	**137/131**	4	70-130/25
MSK2187-BS/BSD	VOCs	Chloroethane	**132**/124	7	70-130/25
MSK2187-BS/BSD	VOCs	2-Chloroethyl vinyl ether	**35/34**	2	70-130/25
MSK2187-BS/BSD	VOCs	Chloromethane	**143/134**	6	70-130/25
MSK2187-BS/BSD	VOCs	1,1-Dichloroethene	**131**/125	5	70-130/25
OP31708-BS	SVOCs	Aniline	**38**	NA	40-140
OP31708-BS	SVOCs	Dimethyl phthalate	**37**	NA	40-140
OP31708-BS	SVOCs	Hexachlorocyclopentadiene	**32**	NA	40-140
OP31708-BS	SVOCs	Pyridine	**38**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LCSD MSK2185-BS/BSD was associated with trip blank quality control sample and are not qualified.

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-011113	VOCs	n-Butylbenzene	**J**
MW2-ROX-011113	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW4-ROX-011113	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW5-ROX-011113	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW4-ROX-011113-Dup	VOCs	2-Chloroethyl vinyl ether	**UJ**
P54-ROX-011113	VOCs	Acrolein	**UJ**
P54-ROX-011113	VOCs	2-Chloroethyl vinyl ether	**UJ**
ROST4PZ(C)-ROX-011113	VOCs	Acrolein	**UJ**

Sample ID	Parameter	Analyte	Qualification
ROST4PZ(C)-ROX-011113	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW9-ROX-011113	VOCs	Acrolein	**UJ**
MW9-ROX-011113	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW2-ROX-011113	SVOCs	Aniline	**UJ**
MW2-ROX-011113	SVOCs	Dimethyl phthalate	**UJ**
MW2-ROX-011113	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW2-ROX-011113	SVOCs	Pyridine	**UJ**
MW4-ROX-011113	SVOCs	Aniline	**UJ**
MW4-ROX-011113	SVOCs	Dimethyl phthalate	**UJ**
MW4-ROX-011113	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW4-ROX-011113	SVOCs	Pyridine	**UJ**
MW5-ROX-011113	SVOCs	Aniline	**UJ**
MW5-ROX-011113	SVOCs	Dimethyl phthalate	**UJ**
MW5-ROX-011113	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW5-ROX-011113	SVOCs	Pyridine	**UJ**
MW4-ROX-011113-Dup	SVOCs	Aniline	**UJ**
MW4-ROX-011113-Dup	SVOCs	Dimethyl phthalate	**UJ**
MW4-ROX-011113-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW4-ROX-011113-Dup	SVOCs	Pyridine	**UJ**
P54-ROX-011113	SVOCs	Aniline	**UJ**
P54-ROX-011113	SVOCs	Dimethyl phthalate	**UJ**
P54-ROX-011113	SVOCs	Hexachlorocyclopentadiene	**UJ**
P54-ROX-011113	SVOCs	Pyridine	**UJ**
ROST4PZ(C)-ROX-011113	SVOCs	Aniline	**UJ**
ROST4PZ(C)-ROX-011113	SVOCs	Dimethyl phthalate	**UJ**
ROST4PZ(C)-ROX-011113	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZ(C)-ROX-011113	SVOCs	Pyridine	**UJ**
MW9-ROX-011113	SVOCs	Aniline	**UJ**
MW9-ROX-011113	SVOCs	Dimethyl phthalate	**UJ**
MW9-ROX-011113	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW9-ROX-011113	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample P54-ROX-011113 was spiked and analyzed for VOCs, SVOCs, and PAHs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
P54-ROX-011113	VOCs	Acrolein	**452/460**	2	70-130/30
P54-ROX-011113	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	70-130/30
P54-ROX-011113	SVOCs	Phenol	**27**/31	13	30-130/20
P54-ROX-011113	SVOCs	Aniline	**38/37**	5	40-140/20
P54-ROX-011113	SVOCs	Hexachlorocyclopentadiene	**31/32**	3	40-140/20
P54-ROX-011113	SVOCs	Pyridine	**36/33**	10	40-140/20

Analytical results reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a high bias, did not require qualification. USEPA National Functional Guidelines for Organic Data Review indicates that organic data does not require qualification based on MS/MSD data alone. LCS/LCSD recoveries were within evaluation criteria with the exception of compounds listed and qualified as appropriate in Section 5.0 of this data review. No further qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	IS Criteria
MW4-ROX-011113	VOCs	Tert butyl alcohol-d_9	**22151**	22271-89084
MW4-ROX-011113-Dup	VOCs	Tert butyl alcohol-d_9	**21028**	22271-89084

Analytical data that required qualification based on internal standard data are included in the table below.

Field ID	Parameter	Analyte	Qualification
MW4-ROX-011113 Run#2	VOCs	Benzene	**J**
MW4-ROX-011113-Dup Run#2	VOCs	Benzene	**J**

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
MW4-ROX-011113	MW4-ROX-011113-Dup

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification recovery for acrolein exceeded 50 percent difference (%D); analytes in associated samples were qualified as summarized in the following table.

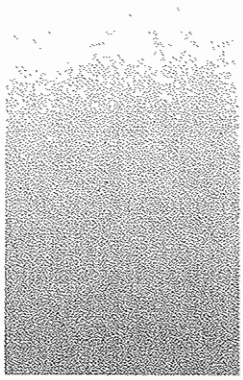
Sample ID	Parameter	Analyte	Qualification
MW2-ROX-011113	VOCs	Acrolein	**UJ**
MW4-ROX-011113	VOCs	Acrolein	**UJ**
MW5-ROX-011113	VOCs	Acrolein	**UJ**
MW4-ROX-011113-Dup	VOCs	Acrolein	**UJ**

Additionally, professional judgment was used to qualify the common laboratory contaminant acetone reported at concentrations greater than two times (>2X) the reporting limit (RL), since acetone is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
MW9-ROX-011113	Acetone	123 ug/L	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

02/01/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17505

Sampling Date: 01/11/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **125**

Reviewed on 2/18/2013

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **9**
4.1: MC17505-1: MW2-ROX-011113 10
4.2: MC17505-2: MW4-ROX-011113 17
4.3: MC17505-3: MW5-ROX-011113 24
4.4: MC17505-4: MW4-ROX-011113-DUP 31
4.5: MC17505-5: TB-011113-HCL 38
4.6: MC17505-6: TB-011113-ST 41
4.7: MC17505-7: P54-ROX-011113 42
4.8: MC17505-8: ROST4PZ(C)-ROX-011113 49
4.9: MC17505-9: MW9-ROX-011113 56
4.10: MC17505-10: TB-ROX-011113HCL 63
4.11: MC17505-11: TB-ROX-011113ST 66
Section 5: Misc. Forms **67**
5.1: Chain of Custody 68
5.2: Sample Tracking Chronicle 72
5.3: Internal Chain of Custody 74
Section 6: GC/MS Volatiles - QC Data Summaries **77**
6.1: Method Blank Summary 78
6.2: Blank Spike Summary 85
6.3: Blank Spike/Blank Spike Duplicate Summary 86
6.4: Matrix Spike/Matrix Spike Duplicate Summary 92
6.5: Internal Standard Area Summaries 99
6.6: Surrogate Recovery Summaries 102
Section 7: GC/MS Semi-volatiles - QC Data Summaries **103**
7.1: Method Blank Summary 104
7.2: Blank Spike Summary 107
7.3: Matrix Spike/Matrix Spike Duplicate Summary 110
7.4: Internal Standard Area Summaries 113
7.5: Surrogate Recovery Summaries 116
Section 8: GC Volatiles - QC Data Summaries **118**
8.1: Method Blank Summary 119
8.2: Blank Spike Summary 120
8.3: Matrix Spike/Matrix Spike Duplicate Summary 121
8.4: Surrogate Recovery Summaries 122
8.5: GC Surrogate Retention Time Summaries 123

Accutest LabLink@133344 16:34 01-Feb-2013

Sample Summary

Shell Oil

Job No: MC17505

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17505-1	01/11/13	11:01	SJBL	01/12/13	AQ	Ground Water	MW2-ROX-011113
MC17505-2	01/11/13	12:35	SJBL	01/12/13	AQ	Ground Water	MW4-ROX-011113
MC17505-3	01/11/13	14:45	SJBL	01/12/13	AQ	Ground Water	MW5-ROX-011113
MC17505-4	01/11/13	12:35	SJBL	01/12/13	AQ	Ground Water	MW4-ROX-011113-DUP
MC17505-5	01/11/13	00:00	SJBL	01/12/13	AQ	Trip Blank Water	TB-011113-HCL
MC17505-6	01/11/13	00:00	SJBL	01/12/13	AQ	Trip Blank Water	TB-011113-ST
MC17505-7	01/11/13	10:25	SJBL	01/12/13	AQ	Ground Water	P54-ROX-011113
MC17505-7D	01/11/13	10:25	SJBL	01/12/13	AQ	Water Dup/MSD	P54-ROX-011113
MC17505-7S	01/11/13	10:25	SJBL	01/12/13	AQ	Water Matrix Spike	P54-ROX-011113
MC17505-8	01/11/13	14:05	SJBL	01/12/13	AQ	Ground Water	ROST4PZ(C)-ROX-011113
MC17505-9	01/11/13	15:25	SJBL	01/12/13	AQ	Ground Water	MW9-ROX-011113
MC17505-10	01/11/13	00:00	SJBL	01/12/13	AQ	Trip Blank Water	TB-ROX-011113HCL
MC17505-11	01/11/13	00:00	SJBL	01/12/13	AQ	Trip Blank Water	TB-ROX-011113ST

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC17505
Site:	URSMOSTL:Roxana IQ13 GW/ 21562850.03001 900 South Centra	**Report Date**	1/24/2013 3:37:17 PM

7 Sample(s) and 4 Trip Blank(s) were collected on 01/11/2013 and were received at Accutest on 01/12/2013 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of MC17505. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** MSK2185

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17426-3MS, MC17426-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplicate Recovery(s) for n-Butylbenzene, 2-Chloroethyl vinyl ether are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein, Styrene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for Acrolein are outside control limits for sample MC17426-3MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Calibration check standard MSK2185-CC2177 for acrolein exceeds 50% Difference (response bias high). Associated samples are non-detect for this compound.

Matrix: AQ **Batch ID:** MSK2187

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17505-7MS, MC17505-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1-Dichloroethene, 2-Chloroethyl vinyl ether, Acetone, Acrolein, Acrylonitrile, Chloroethane, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Blank Spike Duplicate Recovery(s) for 2-Chloroethyl vinyl ether, Acrylonitrile, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- Calibration check standard MSK2187-CC2177 for acrolein exceeds 50% Difference (response bias high). Associated samples are non-detect for this compound.

Matrix: AQ **Batch ID:** MSK2189

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17565-6MS, MC17565-6MSD were used as the QC samples indicated.
- MC17505-2, 4, MC17565-6MS has Tert Butyl Alcohol-D9 outside control limits. Target analytes not associated with this internal standard.

Extractables by GCMS By Method SW846 8270C

Matrix: AQ	Batch ID: OP31708

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17505-7MS, MC17505-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Aniline, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Aniline, Hexachlorocyclopentadiene, Phenol, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, Hexachlorocyclopentadiene, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ	Batch ID: OP31709

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17505-7MS, MC17505-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Volatiles by GC By Method SW846 8011

Matrix: AQ	Batch ID: OP31715

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17505-7MS, MC17505-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17505).

ACCUTEST
LABORATORIES

Elizabeth Kunkel
URS
St. Louis, MO

February 15, 2013

Accutest Job: MC17505

Ms. Elizabeth Kunkel,

On the report for SDG MC17505, the sample receipt confirmation was marked incorrectly by the lab. The SDG did have a trip blank that was received in the cooler, the trip blank was marked on the COC, and the vials that were sent for VOC analysis were received headspace free.

Sincerely,

Jeremy M. Vienneau
Accutest Laboratories of New England, Inc.

Summary of Hits

Job Number: MC17505
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17505-1	MW2-ROX-011113					
Benzene		19.2	1.0	0.48	ug/l	SW846 8260B
n-Butylbenzene		17.6	10	1.2	ug/l	SW846 8260B
sec-Butylbenzene		7.7 J	10	1.1	ug/l	SW846 8260B
tert-Butylbenzene		2.0 J	10	1.3	ug/l	SW846 8260B
Chloroethane		8.3	4.0	1.0	ug/l	SW846 8260B
Ethylbenzene		676	2.0	1.0	ug/l	SW846 8260B
Isopropylbenzene		87.9	10	1.0	ug/l	SW846 8260B
p-Isopropyltoluene		9.4 J	10	1.1	ug/l	SW846 8260B
Naphthalene		76.8	10	1.0	ug/l	SW846 8260B
n-Propylbenzene		121	10	1.2	ug/l	SW846 8260B
Toluene		9.3	2.0	1.0	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		219	10	0.69	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		105	10	0.93	ug/l	SW846 8260B
m,p-Xylene		685	2.0	1.5	ug/l	SW846 8260B
o-Xylene		28.7	2.0	1.2	ug/l	SW846 8260B
Xylene (total)		713	2.0	1.2	ug/l	SW846 8260B
Acenaphthene		0.16	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.019 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Benzo(a)pyrene		0.027 J	0.11	0.019	ng/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.039 J	0.056	0.026	ug/l	SW846 8270C BY SIM
Fluoranthene		0.040 J	0.11	0.036	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		8.0	0.22	0.16	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		16.2	0.22	0.058	ug/l	SW846 8270C BY SIM
Phenanthrene		0.044 J	0.056	0.014	ug/l	SW846 8270C BY SIM
Pyrene		0.039 J	0.11	0.039	ug/l	SW846 8270C BY SIM
MC17505-2	MW4-ROX-011113					
Benzene		9040	25	12	ug/l	SW846 8260B
Ethylbenzene		0.52 J	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		1.2 J	5.0	0.50	ug/l	SW846 8260B
Methyl Tert Butyl Ether		65.4	1.0	0.41	ug/l	SW846 8260B
n-Propylbenzene		2.6 J	5.0	0.58	ug/l	SW846 8260B
Toluene		7.5	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		1.9 J	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		2.4 J	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		5.6	1.0	0.73	ug/l	SW846 8260B
Xylene (total)		5.6	1.0	0.58	ug/l	SW846 8260B
Phenol		60.8	5.6	1.1	ug/l	SW846 8270C
2-Methylnaphthalene		0.14 J	0.22	0.058	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC17505
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17505-3	MW5-ROX-011113					
Benzene		7.2	0.50	0.24	ug/l	SW846 8260B
sec-Butylbenzene		1.6 J	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		5.0	5.0	0.64	ug/l	SW846 8260B
Isopropylbenzene		0.86 J	5.0	0.50	ug/l	SW846 8260B
Methyl Tert Butyl Ether		29.5	1.0	0.41	ug/l	SW846 8260B
Toluene		0.80 J	1.0	0.51	ug/l	SW846 8260B
Acenaphthene		0.071 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.066 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Anthracene		0.028 J	0.11	0.019	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		4.3	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.084 J	0.22	0.057	ug/l	SW846 8270C BY SIM
Phenanthrene		0.048 J	0.055	0.014	ug/l	SW846 8270C BY SIM
MC17505-4	MW4-ROX-011113-DUP					
Benzene		8960	25	12	ug/l	SW846 8260B
Ethylbenzene		0.56 J	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		1.4 J	5.0	0.50	ug/l	SW846 8260B
Methyl Tert Butyl Ether		68.1	1.0	0.41	ug/l	SW846 8260B
n-Propylbenzene		3.0 J	5.0	0.58	ug/l	SW846 8260B
Toluene		8.3	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		1.9 J	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		2.6 J	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		6.0	1.0	0.73	ug/l	SW846 8260B
Xylene (total)		6.0	1.0	0.58	ug/l	SW846 8260B
Phenol		66.5	6.0	1.2	ug/l	SW846 8270C
2-Methylnaphthalene		0.099 J	0.24	0.062	ug/l	SW846 8270C BY SIM
MC17505-5	TB-011113-HCL					
No hits reported in this sample.						
MC17505-6	TB-011113-ST					
No hits reported in this sample.						
MC17505-7	P54-ROX-011113					
Phenanthrene		0.032 J	0.053	0.013	ug/l	SW846 8270C BY SIM
MC17505-8	ROST4PZ(C)-ROX-011113					
Ethylbenzene		1.3	1.0	0.51	ug/l	SW846 8260B

Summary of Hits

Job Number: MC17505
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
1,2,4-Trimethylbenzene		2.0 J	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		1.4 J	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		1.8	1.0	0.73	ug/l	SW846 8260B
Xylene (total)		1.8	1.0	0.58	ug/l	SW846 8260B
2-Methylnaphthalene		0.064 J	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.12	0.053	0.013	ug/l	SW846 8270C BY SIM
MC17505-9	**MW9-ROX-011113**					
Acetone		123	5.0	3.0	ug/l	SW846 8260B
Acenaphthene		0.068 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.064 J	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.060 J	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.026 J	0.054	0.025	ug/l	SW846 8270C BY SIM
Fluoranthene		0.066 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.11	0.11	0.050	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.14 J	0.22	0.056	ug/l	SW846 8270C BY SIM
Phenanthrene		0.12	0.054	0.014	ug/l	SW846 8270C BY SIM
Pyrene		0.057 J	0.11	0.038	ug/l	SW846 8270C BY SIM
MC17505-10	**TB-ROX-011113HCL**					
No hits reported in this sample.						
MC17505-11	**TB-ROX-011113ST**					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW2-ROX-011113		
Lab Sample ID:	MC17505-1	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66584.D	2	01/18/13	GK	n/a	n/a	MSK2185
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	6.0	ug/l	
107-02-8	Acrolein	ND	50	20	ug/l	UJ
107-13-1	Acrylonitrile	ND	10	6.5	ug/l	
71-43-2	Benzene	19.2	1.0	0.48	ug/l	
108-86-1	Bromobenzene	ND	10	1.2	ug/l	
74-97-5	Bromochloromethane	ND	10	2.5	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	1.2	ug/l	
75-25-2	Bromoform	ND	2.0	1.6	ug/l	
74-83-9	Bromomethane	ND	4.0	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
104-51-8	n-Butylbenzene	17.6	10	1.2	ug/l	J
135-98-8	sec-Butylbenzene	7.7	10	1.1	ug/l	J
98-06-6	tert-Butylbenzene	2.0	10	1.3	ug/l	J
75-15-0	Carbon disulfide	ND	10	1.2	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	1.7	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.94	ug/l	
75-00-3	Chloroethane	8.3	4.0	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.5	ug/l	UJ
67-66-3	Chloroform	ND	2.0	0.99	ug/l	
74-87-3	Chloromethane	ND	4.0	1.5	ug/l	
95-49-8	o-Chlorotoluene	ND	10	1.3	ug/l	
106-43-4	p-Chlorotoluene	ND	10	0.97	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	1.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.0	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.90	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2.0	1.3	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	3.5	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	1.2	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	1.3	ug/l	
75-35-4	1,1-Dichloroethene	ND	2.0	0.82	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	1.3	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	1.9	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:	MW2-ROX-011113		
Lab Sample ID:	MC17505-1	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	4.0	1.4	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	1.3	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	3.1	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	1.8	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.90	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.39	ug/l	
123-91-1	1,4-Dioxane	ND	50	30	ug/l	
97-63-2	Ethyl methacrylate	ND	10	1.6	ug/l	
100-41-4	Ethylbenzene	676	2.0	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	4.1	ug/l	
591-78-6	2-Hexanone	ND	10	3.9	ug/l	
98-82-8	Isopropylbenzene	87.9	10	1.0	ug/l	
99-87-6	p-Isopropyltoluene	9.4	10	1.1	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.82	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10	5.8	ug/l	
74-95-3	Methylene bromide	ND	10	2.2	ug/l	
75-09-2	Methylene chloride	ND	4.0	1.7	ug/l	
91-20-3	Naphthalene	76.8	10	1.0	ug/l	
103-65-1	n-Propylbenzene	121	10	1.2	ug/l	
100-42-5	Styrene	ND	10	0.91	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	1.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	1.2	ug/l	
127-18-4	Tetrachloroethene	ND	2.0	0.84	ug/l	
108-88-3	Toluene	9.3	2.0	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10	2.5	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10	2.6	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	1.7	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	1.0	ug/l	
79-01-6	Trichloroethene	ND	2.0	1.6	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.57	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	10	1.7	ug/l	
95-63-6	1,2,4-Trimethylbenzene	219	10	0.69	ug/l	
108-67-8	1,3,5-Trimethylbenzene	105	10	0.93	ug/l	
108-05-4	Vinyl Acetate	ND	10	2.5	ug/l	
75-01-4	Vinyl chloride	ND	2.0	1.3	ug/l	
	m,p-Xylene	685	2.0	1.5	ug/l	
95-47-6	o-Xylene	28.7	2.0	1.2	ug/l	
1330-20-7	Xylene (total)	713	2.0	1.2	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:	MW2-ROX-011113		
Lab Sample ID:	MC17505-1	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	111%		70-130%
460-00-4	4-Bromofluorobenzene	117%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW2-ROX-011113		
Lab Sample ID:	MC17505-1	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61150.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Beuzoic Acid	ND	11	1.4	ug/l	
95-57-8	2-Chlorophenol	ND	5.6	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.61	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.8	ug/l	
95-48-7	2-Methylphenol	ND	11	2.2	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.60	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.6	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	2.0	ug/l	
62-53-3	Aniline	ND	11	0.71	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	0.81	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.6	0.73	ug/l	
100-51-6	Benzyl Alcohol	ND	11	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.8	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.38	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	1.6	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.89	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.85	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.99	ug/l	
132-64-9	Dibenzofuran	ND	2.2	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.6	0.61	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.6	1.4	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:	MW2-ROX-011113		
Lab Sample ID:	MC17505-1	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.6	0.56	ug/l	
131-11-3	Dimethyl phthalate	ND	5.6	0.23	ug/l	U
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.6	0.59	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	U
67-72-1	Hexachloroethane	ND	5.6	1.8	ug/l	
78-59-1	Isophorone	ND	5.6	0.56	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.96	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.4	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.6	0.56	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.6	1.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.6	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		15-110%
4165-62-2	Phenol-d5	30%		15-110%
118-79-6	2,4,6-Tribromophenol	71%		15-110%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	37%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW2-ROX-011113		
Lab Sample ID:	MC17505-1	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I81272.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.16	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	0.019	0.11	0.015	ug/l	J
120-12-7	Anthracene	ND	0.11	0.020	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.056	0.033	ug/l	
50-32-8	Benzo(a)pyrene	0.027	0.11	0.019	ug/l	J
205-99-2	Benzo(b)fluoranthene	0.039	0.056	0.026	ug/l	J
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.042	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.065	ug/l	
218-01-9	Chrysene	ND	0.11	0.081	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.046	ug/l	
206-44-0	Fluoranthene	0.040	0.11	0.036	ug/l	J
86-73-7	Flnorene	ND	0.11	0.051	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.051	ug/l	
90-12-0	1-Methylnaphthalene	8.0	0.22	0.16	ng/l	
91-57-6	2-Methylnaphthalene	16.2	0.22	0.058	ug/l	
85-01-8	Phenanthrene	0.044	0.056	0.014	ug/l	J
129-00-0	Pyrene	0.039	0.11	0.039	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		15-110%
4165-62-2	Phenol-d5	33%		15-110%
118-79-6	2,4,6-Tribromophenol	63%		15-110%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	35%		30-130%

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:	MW2-ROX-011113		
Lab Sample ID:	MC17505-1	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77943.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethaue	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	120%		36-173%
460-00-4	Bromofluorobenzene (S)	118%		36-173%

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

Report of Analysis

Client Sample ID:	MW4-ROX-011113		
Lab Sample ID:	MC17505-2	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66573.D	1	01/18/13	GK	n/a	n/a	MSK2185
Run #2	K66674.D	50	01/22/13	GK	n/a	n/a	MSK2189

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	9040 [a]	25	12	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotolnene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW4-ROX-011113		
Lab Sample ID:	MC17505-2	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	0.52	1.0	0.51	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	1.2	5.0	0.50	ug/l	J
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	65.4	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	2.6	5.0	0.58	ug/l	J
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	7.5	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.9	5.0	0.35	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	2.4	5.0	0.47	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	5.6	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	5.6	1.0	0.58	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:	MW4-ROX-011113		
Lab Sample ID:	MC17505-2	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%	108%	70-130%
2037-26-5	Toluene-D8	117%	108%	70-130%
460-00-4	4-Bromofluorobenzene	119%	110%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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:	MW4-ROX-011113		
Lab Sample ID:	MC17505-2	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61151.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.4	ug/l	
95-57-8	2-Chlorophenol	ND	5.6	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.61	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.8	ug/l	
95-48-7	2-Methylphenol	ND	11	2.2	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.60	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	60.8	5.6	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	2.0	ug/l	
62-53-3	Aniline	ND	11	0.71	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	0.81	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.6	0.73	ug/l	
100-51-6	Benzyl Alcohol	ND	11	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.8	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.38	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	1.6	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.89	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.85	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.99	ug/l	
132-64-9	Dibenzofuran	ND	2.2	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.6	0.61	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.6	1.4	ug/l	

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

Report of Analysis

Client Sample ID:	MW4-ROX-011113		
Lab Sample ID:	MC17505-2	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.6	0.56	ug/l	
131-11-3	Dimethyl phthalate	ND	5.6	0.23	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.6	0.59	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.6	1.8	ug/l	
78-59-1	Isophorone	ND	5.6	0.56	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.96	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.4	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.6	0.56	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.6	1.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.6	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	74%		15-110%
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	60%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW4-ROX-011113		
Lab Sample ID:	MC17505-2	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I81273.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.015	ug/l	
120-12-7	Anthracene	ND	0.11	0.020	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.056	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.056	0.026	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.042	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.065	ug/l	
218-01-9	Chrysene	ND	0.11	0.081	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.046	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.036	ug/l	
86-73-7	Fluorene	ND	0.11	0.051	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.051	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.22	0.16	ug/l	
91-57-6	2-Methylnaphthalene	0.14	0.22	0.058	ug/l	J
85-01-8	Phenanthrene	ND	0.056	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		15-110%
4165-62-2	Phenol-d5	33%		15-110%
118-79-6	2,4,6-Tribromophenol	69%		15-110%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	56%		30-130%

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:	MW4-ROX-011113		
Lab Sample ID:	MC17505-2	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77944.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	117%		36-173%
460-00-4	Bromofluorobenzene (S)	110%		36-173%

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

Report of Analysis

Client Sample ID:	MW5-ROX-011113		
Lab Sample ID:	MC17505-3	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66574.D	1	01/18/13	GK	n/a	n/a	MSK2185
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	7.2	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	1.6	5.0	0.55	ug/l	J
98-06-6	tert-Butylbenzene	5.0	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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

Report of Analysis

Client Sample ID:	MW5-ROX-011113		
Lab Sample ID:	MC17505-3	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	0.86	5.0	0.50	ug/l	J
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	29.5	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	0.80	1.0	0.51	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ng/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

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

Report of Analysis

Client Sample ID:	MW5-ROX-011113		
Lab Sample ID:	MC17505-3	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromoflnorobenzene	116%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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Report of Analysis

Client Sample ID:	MW5-ROX-011113		
Lab Sample ID:	MC17505-3	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61152.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.4	ug/l	
95-57-8	2-Chlorophenol	ND	5.5	0.78	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Metbylphenol	ND	11	2.2	ug/l	
	3&4-Methylphenol	ND	11	1.1	ng/l	
88-75-5	2-Nitrophenol	ND	11	0.59	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ng/l	
108-95-2	Phenol	ND	5.5	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	2.0	ug/l	
62-53-3	Aniline	ND	11	0.70	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.5	0.80	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.5	0.73	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.5	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.7	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.5	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.5	0.38	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.5	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.5	1.6	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.5	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.88	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.84	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.5	0.98	ug/l	
132-64-9	Dibenzofuran	ND	2.2	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.5	0.60	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.5	1.4	ug/l	

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Report of Analysis

Client Sample ID:	MW5-ROX-011113		
Lab Sample ID:	MC17505-3	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.5	0.55	ug/l	
131-11-3	Dimethyl phthalate	ND	5.5	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.5	0.58	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.5	1.7	ug/l	
78-59-1	Isophorone	ND	5.5	0.55	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.95	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.4	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.5	0.55	ug/l	
62-75-9	u-Nitrosodimethylamine	ND	5.5	1.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.5	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.5	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.55	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		15-110%
4165-62-2	Phenol-d5	22%		15-110%
118-79-6	2,4,6-Tribromophenol	65%		15-110%
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	55%		30-130%
1718-51-0	Terphenyl-d14	39%		30-130%

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

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Report of Analysis

Client Sample ID:	MW5-ROX-011113		
Lab Sample ID:	MC17505-3	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	l81274.D	1	01/18/13	NS	01/16/13	OP31709	MSl3025
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.071	0.11	0.015	ug/l	J
208-96-8	Acenaphthylene	0.066	0.11	0.015	ug/l	J
120-12-7	Anthracene	0.028	0.11	0.019	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.055	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.055	0.026	ug/l	
I91-24-2	Benzo(g,h,i)perylene	ND	0.11	0.041	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.064	ug/l	
218-01-9	Chrysene	ND	0.11	0.080	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.046	ug/l	
206-44-0	Fluorantheue	ND	0.11	0.036	ug/l	
86-73-7	Fluorene	ND	0.11	0.051	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.051	ug/l	
90-12-0	1-Methylnaphthalene	4.3	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.084	0.22	0.057	ug/l	J
85-01-8	Phenanthrene	0.048	0.055	0.014	ug/l	J
129-00-0	Pyrene	ND	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		15-110%
4165-62-2	Phenol-d5	24%		15-110%
118-79-6	2,4,6-Trihromophenol	60%		15-110%
4165-60-0	Nitrobenzene-d5	59%		30-130%
321-60-8	2-Fluorobiphenyl	55%		30-130%
1718-51-0	Terphenyl-d14	36%		30-130%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-011113		
Lab Sample ID:	MC17505-3	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77945.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	34.7 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	134%		36-173%
460-00-4	Bromofluorobenzene (S)	121%		36-173%

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

Report of Analysis

Client Sample ID:	MW4-ROX-011113-DUP		
Lab Sample ID:	MC17505-4	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66575.D	1	01/18/13	GK	n/a	n/a	MSK2185
Run #2	K66675.D	50	01/22/13	GK	n/a	n/a	MSK2189

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	8960 [a]	25	12	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ng/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dicbloroethene	ND	1.0	0.95	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW4-ROX-011113-DUP		
Lab Sample ID:	MC17505-4	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.0300I 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	0.56	1.0	0.51	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanoue	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	1.4	5.0	0.50	ug/l	J
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	68.1	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	3.0	5.0	0.58	ug/l	J
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	8.3	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.9	5.0	0.35	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	2.6	5.0	0.47	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	6.0	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	6.0	1.0	0.58	ug/l	

ND = Not detected MDL - Method Detection Limit
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Report of Analysis

Client Sample ID:	MW4-ROX-011113-DUP		
Lab Sample ID:	MC17505-4	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	110%	70-130%
2037-26-5	Toluene-D8	117%	107%	70-130%
460-00-4	4-Bromofluorobenzene	115%	112%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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:	MW4-ROX-011113-DUP		
Lab Sample ID:	MC17505-4	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61153.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
Run #2							

	Initial Volume	Final Volume
Run #1	840 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	12	1.5	ug/l	
95-57-8	2-Chlorophenol	ND	6.0	0.84	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	12	0.65	ug/l	
120-83-2	2,4-Dichlorophenol	ND	12	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	12	1.9	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	3.0	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	12	3.0	ug/l	
95-48-7	2-Methylphenol	ND	12	2.4	ug/l	
	3&4-Methylphenol	ND	12	1.2	ug/l	
88-75-5	2-Nitrophenol	ND	12	0.64	ug/l	
100-02-7	4-Nitrophenol	ND	24	1.9	ug/l	
87-86-5	Pentachlorophenol	ND	12	1.5	ug/l	
108-95-2	Phenol	66.5	6.0	1.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	12	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	12	2.1	ug/l	
62-53-3	Aniline	ND	12	0.76	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	6.0	0.87	ug/l	
85-68-7	Butyl benzyl phthalate	ND	6.0	0.79	ug/l	
100-51-6	Benzyl Alcohol	ND	12	2.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	6.0	1.2	ug/l	
106-47-8	4-Chloroaniline	ND	12	4.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	6.0	1.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	6.0	0.41	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	6.0	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	6.0	1.7	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	6.0	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	12	0.96	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	12	0.92	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	6.0	1.1	ug/l	
132-64-9	Dibenzofuran	ND	2.4	1.2	ug/l	
84-74-2	Di-n-butyl phthalate	ND	6.0	0.65	ug/l	
117-84-0	Di-n-octyl phthalate	ND	6.0	1.5	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:	MW4-ROX-011113-DUP		
Lab Sample ID:	MC17505-4	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	6.0	0.60	ug/l	
131-11-3	Dimethyl phthalate	ND	6.0	0.24	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.4	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	6.0	0.63	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	12	1.5	ug/l	UJ
67-72-1	Hexachloroethane	ND	6.0	1.9	ug/l	
78-59-1	Isophorone	ND	6.0	0.60	ug/l	
88-74-4	2-Nitroaniline	ND	12	1.0	ug/l	
99-09-2	3-Nitroaniline	ND	12	2.6	ug/l	
100-01-6	4-Nitroaniline	ND	12	1.3	ug/l	
98-95-3	Nitrobenzene	ND	6.0	0.60	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	6.0	1.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	6.0	1.2	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	6.0	1.5	ug/l	
110-86-1	Pyridine	ND	12	0.60	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	75%		15-110%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	58%		30-130%
1718-51-0	Terphenyl-d14	64%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW4-ROX-011113-DUP		
Lab Sample ID:	MC17505-4	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I81275.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
Run #2							

	Initial Volume	Final Volume
Run #1	840 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.12	0.016	ug/l	
208-96-8	Acenaphthylene	ND	0.12	0.016	ug/l	
120-12-7	Anthracene	ND	0.12	0.021	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.060	0.036	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.12	0.021	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.060	0.028	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.12	0.045	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.12	0.070	ug/l	
218-01-9	Chrysene	ND	0.12	0.087	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.12	0.050	ug/l	
206-44-0	Fluoranthene	ND	0.12	0.039	ug/l	
86-73-7	Fluorene	ND	0.12	0.055	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.12	0.055	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.24	0.17	ug/l	
91-57-6	2-Methylnaphthalene	0.099	0.24	0.062	ug/l	J
85-01-8	Phenanthrene	ND	0.060	0.015	ug/l	
129-00-0	Pyrene	ND	0.12	0.042	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		15-110%
4165-62-2	Phenol-d5	35%		15-110%
118-79-6	2,4,6-Tribromophenol	67%		15-110%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

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:	MW4-ROX-011113-DUP		
Lab Sample ID:	MC17505-4	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77947.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.4 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	128%		36-173%
460-00-4	Bromofluorobenzene (S)	122%		36-173%

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

Report of Analysis

Client Sample ID:	TB-011113-HCL		
Lab Sample ID:	MC17505-5	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66566.D	1	01/18/13	GK	n/a	n/a	MSK2185
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ng/l	
78-93-3	2-Bntanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ng/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-011113-HCL		
Lab Sample ID:	MC17505-5	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dicbloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-011113-HCL		
Lab Sample ID:	MC17505-5	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-011113-ST		
Lab Sample ID:	MC17505-6	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77948.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	128%		36-173%
460-00-4	Bromofluorobenzene (S)	122%		36-173%

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

Report of Analysis

Client Sample ID:	P54-ROX-011113		
Lab Sample ID:	MC17505-7	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ng/l	
107-02-8	Acrolein	ND	25	10	ug/l	us
107-13-1	Acrylonitrile	ND	5.0	3.2	ng/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ng/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ng/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	us
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	P54-ROX-011113		
Lab Sample ID:	MC17505-7	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	P54-ROX-011113		
Lab Sample ID:	MC17505-7	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	109%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P54-ROX-011113		
Lab Sample ID:	MC17505-7	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61149.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.75	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.59	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.70	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.82	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.95	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	ug/l	

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Report of Analysis

Client Sample ID:	P54-ROX-011113		
Lab Sample ID:	MC17505-7	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.22	ug/l	U
117-81-7	bis(2-Ethylhexyl)phtbalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ng/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	U
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.92	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		15-110%
4165-62-2	Phenol-d5	30%		15-110%
118-79-6	2,4,6-Tribromophenol	69%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	64%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ng/l	

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

Report of Analysis

Client Sample ID:	P54-ROX-011113		
Lab Sample ID:	MC17505-7	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	181276.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ug/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.21	0.055	ug/l	
85-01-8	Phenanthrene	0.032	0.053	0.013	ug/l	J
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		15-110%
4165-62-2	Phenol-d5	32%		15-110%
118-79-6	2,4,6-Tribromophenol	68%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	59%		30-130%

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated methnd blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P54-ROX-011113		
Lab Sample ID:	MC17505-7	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77932.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	36.3 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	110%		36-173%
460-00-4	Bromofluorobenzene (S)	111%		36-173%

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

Report of Analysis

Client Sample ID:	ROST4PZ(C)-ROX-011113		
Lab Sample ID:	MC17505-8	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66624.D	1	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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:	ROST4PZ(C)-ROX-011113		
Lab Sample ID:	MC17505-8	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	1.3	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methyleue bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Triuethylbenzene	2.0	5.0	0.35	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	1.4	5.0	0.47	ug/l	J
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	ıu,p-Xylene	1.8	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	1.8	1.0	0.58	ug/l	

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

Report of Analysis

Client Sample ID:	ROST4PZ(C)-ROX-011113		
Lab Sample ID:	MC17505-8	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	111%		70-130%
460-00-4	4-Bromofluorobenzene	114%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	ROST4PZ(C)-ROX-011113		
Lab Sample ID:	MC17505-8	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61154.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.75	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.59	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	J
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.70	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ng/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.82	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.95	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZ(C)-ROX-011113		
Lab Sample ID:	MC17505-8	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.92	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		15-110%
4165-62-2	Phenol-d5	28%		15-110%
118-79-6	2,4,6-Tribromophenol	70%		15-110%
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	69%		30-130%

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

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZ(C)-ROX-011113		
Lab Sample ID:	MC17505-8	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I81277.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ng/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.064	0.21	0.055	ug/l	J
85-01-8	Phenanthrene	0.12	0.053	0.013	ug/l	
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	64%		15-110%
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Flnorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	65%		30-130%

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E = Indicates valne exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZ(C)-ROX-011113		
Lab Sample ID:	MC17505-8	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77949.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	36.6 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0099	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	109%		36-173%
460-00-4	Bromofluorobenzene (S)	105%		36-173%

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

Report of Analysis

Client Sample ID:	MW9-ROX-011113		
Lab Sample ID:	MC17505-9	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66619.D	1	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	~~123~~	~~5.0~~ 123	3.0	ug/l	U
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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

Report of Analysis

Client Sample ID:	MW9-ROX-011113		
Lab Sample ID:	MC17505-9	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropeue	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ng/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 blauk
N = Indicates presumptive evideuce of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-011113		
Lab Sample ID:	MC17505-9	Date Sampled:	01/11/13
Matrix:	AQ - Grouud Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	112%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
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Report of Analysis

Client Sample ID:	MW9-ROX-011113		
Lab Sample ID:	MC17505-9	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61155.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.76	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.59	ug/l	
120-83-2	2,4-Dichloropheuol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.58	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.4	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.78	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.71	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.41	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.87	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.83	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.96	ug/l	
132-64-9	Dibenzofuran	ND	2.2	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.59	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	1.4	ug/l	

ND = Not detected MDL - Method Detection Limit
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Report of Analysis

Client Sample ID:	MW9-ROX-011113		
Lab Sample ID:	MC17505-9	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.57	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.4	1.7	ug/l	
78-59-1	Isophorone	ND	5.4	0.54	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.93	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.54	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.54	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		15-110%
4165-62-2	Phenol-d5	29%		15-110%
118-79-6	2,4,6-Tribromophenol	66%		15-110%
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW9-ROX-011113		
Lab Sample ID:	MC17505-9	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I81278.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.068	0.11	0.015	ug/l	J
208-96-8	Acenaphthylene	0.064	0.11	0.014	ug/l	J
120-12-7	Anthracene	0.060	0.11	0.019	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.054	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	0.026	0.054	0.025	ug/l	J
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.041	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.063	ug/l	
218-01-9	Chrysene	ND	0.11	0.078	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	0.066	0.11	0.035	ug/l	J
86-73-7	Fluorene	0.11	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.14	0.22	0.056	ug/l	J
85-01-8	Phenanthrene	0.12	0.054	0.014	ug/l	
129-00-0	Pyrene	0.057	0.11	0.038	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	32%		15-110%
118-79-6	2,4,6-Tribromophenol	62%		15-110%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	55%		30-130%

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:	MW9-ROX-011113		
Lab Sample ID:	MC17505-9	Date Sampled:	01/11/13
Matrix:	AQ - Ground Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77950.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	34.9 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	116%		36-173%
460-00-4	Bromofluorobenzene (S)	111%		36-173%

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

Report of Analysis

Client Sample ID:	TB-ROX-011113HCL		
Lab Sample ID:	MC17505-10	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66614.D	1	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-011113HCL		
Lab Sample ID:	MC17505-10	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ng/l	
97-63-2	Ethyl metbacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanoue	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Bntyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphtbalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroetbane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-ROX-011113HCL		
Lab Sample ID:	MC17505-10	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	109%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-011113ST		
Lab Sample ID:	MC17505-11	Date Sampled:	01/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77951.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
Run #2							

	Initial Volume	Final Volume
Run #1	35.1 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	116%		36-173%
460-00-4	Bromofluorobenzene (S)	112%		36-173%

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

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508 481-6200)
☐ SPL (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOECH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Dave Palmer
PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 1/11/13
PAGE 1 of 2

COMPANY/CO-OPTION: URS CORPORATION
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave, ROXANA
State: IL
GLOBAL ID NO:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST LOUIS, MO 63110
PHONE NO:
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21662850.03001
PROJECT CONTACT (Person to Report to): Dave Palmer and Ekzabeth Kunkel
TELEPHONE: 314-429-0100
FAX: 314-429-0462
SAMPLER NAME(S) (Print): S Jansen / Blehan / D Hattingh / P Kietzer
LAB USE ONLY: MC17505

TURNAROUND TIME (CALENDAR DAYS)
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

REQUESTED ANALYSIS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ COD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container ID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container ID Readings or Laboratory Notes
-1	MW2-RLX-[illegible]	1/11/13	HCl	Water	2			2	2	6	X	X	X	X	0	
-2	MW4-RLX-[illegible]	1	1345	1	2			2	2	6	X	X	X	X	1	
-3	MW5-RLX-[illegible]		1445	1	2			2	2	6	X	X	X	X	1	
-4	MW4-RLX-[illegible] DUP	1	1355	1	2			2	2	6	X	X	X	X	1	
-5	TB-[illegible]-HCL	1	0000	1	2				2	2	X					
-6	TB-[illegible]-ST	1	0000	1				2	2	2		X				
-7	PSH-RLX-[illegible]	1	1025	1	2			2	2	6	X	X	X	X		16B/N3
-7SD	PSH-RLX-[illegible] MS	1	1025	1	2			2	2	6	X	X	X	X		
-7SD	PSH-RLX-[illegible] MSD	1	1025	1	2			2	2	6	X	X	X	X		
-8	RPST4MW2(C)-RLX-[illegible]	↓	1405	↓	2			2	2	6	X	X	X	X	↓	1.2°, 1.9° 3.0°

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	FED EX	1/11/13	1700
FX	[signature]	1/12/13	10:00

05/2008 Revision

MC17505: Chain of Custody
Page 1 of 4

LAB (LOCATION)
☐ XENCO (
☐ CALSCIENCE (
☑ OTHER Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ SPL (
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOBOH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #

INCIDENT # (ENV SERVICES): B 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 1/11/13
PAGE 2 of 2

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
SITE ADDRESS, Street and City: 900 South Central Ave, ROXANA
State: IL
GLOBAL ID NO:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300 ST LOUIS, MO 63110
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO:
E-MAIL:
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21662650.03001
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100
FAX: 314-429-0462
e-mail to Consultant: [illegible]
SAMPLER(S) NAME(S) Printed: S Jansen/B Lehan/D Martinez/P Kaestner
LAB USE ONLY: MC17505

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
REQUESTED ANALYSIS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°: Cooler #1: [illegible] Cooler #2: [illegible] Cooler #3: [illegible]

SPECIAL INSTRUCTIONS OR NOTES:
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☑ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)
-9	MW1-REX-CMB3	1/11/13	1052	Water	8			2	2	6	X	X	X	X	0
-10	TB-REX-CMB3RICL	1	0800	1	2					2	X				
-11	TB-REX-CMB3 ST	1	0800	1					2	2		X			
	[illegible]														
															1.9°

Relinquished by (Signature)	Received by (Signature)	Date	Time
Susan Jansen	FED EX	1/11/13	1700
FX		1/12/13	10:00

05/2006 Revision

5.1
5

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17505 **Client:** URS **Immediate Client Services Action Required:** Yes

Date / Time Received: 1/14/2013 **Delivery Method:**

Project: 900 SO CENTRAL AVENUE **No. Coolers:** **Airbill #'s:**

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☐	☐	
2. Trip Blank listed on COC:	☐	☐	
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free.	☐	☐	☑

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample rec'd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y	N	N/A
1. Anelysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

-1 1-950ML (NO PRES) Recd. Broken, one remains for extraction.

Accutest Laboratories
V 508 481 6200

495 Technology Center West, Bldg One
F 508 481 7753

Marlborough, MA
www.accutest.com

5.1

ACCUTEST

Sample Receipt Summary - Problem Resolution

Accutest Job Number: MC17505

CSR: Jeremy Vienneau **Response Date:** 1/15/2013

Response: Client was notifed via email.

5.1

5

MC17505: Chain of Custody
Page 4 of 4

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17505

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17505-1 Collected: 11-JAN-13 11:01 By: SJBL Received: 12-JAN-13 By: MW2-ROX-011113						
MC17505-1	SW846 8270C	17-JAN-13 16:42	KR	16-JAN-13	AJ	AB8270SL+
MC17505-1	SW846 8270C BY SIM	18-JAN-13 15:18	NS	16-JAN-13	AJ	B8270SIMSL
MC17505-1	SW846 8260B	18-JAN-13 20:02	GK			V8260SL+
MC17505-1	SW846 8011	19-JAN-13 08:22	CZ	17-JAN-13	BJ	V8011SL
MC17505-2 Collected: 11-JAN-13 12:35 By: SJBL Received: 12-JAN-13 By: MW4-ROX-011113						
MC17505-2	SW846 8270C	17-JAN-13 17:04	KR	16-JAN-13	AJ	AB8270SL+
MC17505-2	SW846 8260B	18-JAN-13 15:04	GK			V8260SL+
MC17505-2	SW846 8270C BY SIM	18-JAN-13 15:41	NS	16-JAN-13	AJ	B8270SIMSL
MC17505-2	SW846 8011	19-JAN-13 08:48	CZ	17-JAN-13	BJ	V8011SL
MC17505-2	SW846 8260B	22-JAN-13 14:58	GK			V8260SL+
MC17505-3 Collected: 11-JAN-13 14:45 By: SJBL Received: 12-JAN-13 By: MW5-ROX-011113						
MC17505-3	SW846 8270C	17-JAN-13 17:27	KR	16-JAN-13	AJ	AB8270SL+
MC17505-3	SW846 8260B	18-JAN-13 15:32	GK			V8260SL+
MC17505-3	SW846 8270C BY SIM	18-JAN-13 16:04	NS	16-JAN-13	AJ	B8270SIMSL
MC17505-3	SW846 8011	19-JAN-13 09:13	CZ	17-JAN-13	BJ	V8011SL
MC17505-4 Collected: 11-JAN-13 12:35 By: SJBL Received: 12-JAN-13 By: MW4-ROX-011113-DUP						
MC17505-4	SW846 8270C	17-JAN-13 17:49	KR	16-JAN-13	AJ	AB8270SL+
MC17505-4	SW846 8260B	18-JAN-13 15:59	GK			V8260SL+
MC17505-4	SW846 8270C BY SIM	18-JAN-13 16:32	NS	16-JAN-13	AJ	B8270SIMSL
MC17505-4	SW846 8011	19-JAN-13 10:03	CZ	17-JAN-13	BJ	V8011SL
MC17505-4	SW846 8260B	22-JAN-13 15:26	GK			V8260SL+
MC17505-5 Collected: 11-JAN-13 00:00 By: SJBL Received: 12-JAN-13 By: TB-011113-HCL						
MC17505-5	SW846 8260B	18-JAN-13 11:54	GK			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17505

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17505-6 Collected: 11-JAN-13 00:00 By: SJBL Received: 12-JAN-13 By: TB-011113-ST						
MC17505-6	SW846 8011	19-JAN-13 10:28	CZ	17-JAN-13	BJ	V8011SL
MC17505-7 Collected: 11-JAN-13 10:25 By: SJBL Received: 12-JAN-13 By: P54-ROX-011113						
MC17505-7	SW846 8270C	17-JAN-13 16:19	KR	16-JAN-13	AJ	AB8270SL+
MC17505-7	SW846 8270C BY SIM	18-JAN-13 16:54	NS	16-JAN-13	AJ	B8270SIMSL
MC17505-7	SW846 8011	19-JAN-13 03:45	CZ	17-JAN-13	BJ	V8011SL
MC17505-7	SW846 8260B	21-JAN-13 12:30	GK			V8260SL+
MC17505-8 Collected: 11-JAN-13 14:05 By: SJBL Received: 12-JAN-13 By: ROST4PZ(C)-ROX-011113						
MC17505-8	SW846 8270C	17-JAN-13 18:12	KR	16-JAN-13	AJ	AB8270SL+
MC17505-8	SW846 8270C BY SIM	18-JAN-13 17:17	NS	16-JAN-13	AJ	B8270SIMSL
MC17505-8	SW846 8011	19-JAN-13 10:54	CZ	17-JAN-13	BJ	V8011SL
MC17505-8	SW846 8260B	21-JAN-13 15:14	GK			V8260SL+
MC17505-9 Collected: 11-JAN-13 15:25 By: SJBL Received: 12-JAN-13 By: MW9-ROX-011113						
MC17505-9	SW846 8270C	17-JAN-13 18:35	KR	16-JAN-13	AJ	AB8270SL+
MC17505-9	SW846 8270C BY SIM	18-JAN-13 17:40	NS	16-JAN-13	AJ	B8270SIMSL
MC17505-9	SW846 8011	19-JAN-13 11:19	CZ	17-JAN-13	BJ	V8011SL
MC17505-9	SW846 8260B	21-JAN-13 12:57	GK			V8260SL+
MC17505-10 Collected: 11-JAN-13 00:00 By: SJBL Received: 12-JAN-13 By: TB-ROX-011113HCL						
MC17505-10	SW846 8260B	21-JAN-13 10:42	GK			V8260SL+
MC17505-11 Collected: 11-JAN-13 00:00 By: SJBL Received: 12-JAN-13 By: TB-ROX-011113ST						
MC17505-11	SW846 8011	19-JAN-13 11:45	CZ	17-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17505-1.1	Walk In Ref #22	Michael Rolo	01/16/13 14:44	Retrieve from Storage
MC17505-1.1	Michael Rolo		01/17/13 15:20	Depleted
MC17505-1.4	VOC Ref #1	Gary Krasinski	01/18/13 09:57	Retrieve from Storage
MC17505-1.4	Gary Krasinski	VOC Ref #1	01/21/13 10:05	Return to Storage
MC17505-1.5	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-1.5	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-2.1	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-2.1	Michael Rolo		01/17/13 15:20	Depleted
MC17505-2.3	VOC Ref #1	Gary Krasinski	01/18/13 09:56	Retrieve from Storage
MC17505-2.3	Gary Krasinski	VOC Ref #1	01/21/13 08:33	Return to Storage
MC17505-2.4	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-2.4	Gary Krasinski	VOC Ref #1	01/23/13 09:22	Return to Storage
MC17505-2.6	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-2.6	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-3.2	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-3.2	Michael Rolo		01/17/13 15:20	Depleted
MC17505-3.4	VOC Ref #1	Gary Krasinski	01/18/13 09:56	Retrieve from Storage
MC17505-3.4	Gary Krasinski	VOC Ref #1	01/21/13 08:33	Return to Storage
MC17505-3.6	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-3.6	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-4.1	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-4.1	Michael Rolo		01/17/13 15:20	Depleted
MC17505-4.3	VOC Ref #1	Gary Krasinski	01/18/13 09:56	Retrieve from Storage
MC17505-4.3	Gary Krasinski	VOC Ref #1	01/21/13 08:33	Return to Storage
MC17505-4.4	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-4.4	Gary Krasinski	VOC Ref #1	01/23/13 09:22	Return to Storage
MC17505-4.6	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-4.6	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-5.1	VOC Ref #1	Gary Krasinski	01/18/13 09:56	Retrieve from Storage
MC17505-5.1	Gary Krasinski	VOC Ref #1	01/21/13 08:33	Return to Storage

5.3

Accutest Internal Chain of Custody

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17505-6.2	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-6.2	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-7.2	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-7.2	Michael Rolo		01/17/13 15:20	Depleted
MC17505-7.3	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-7.3	Michael Rolo		01/17/13 15:20	Depleted
MC17505-7.4	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-7.4	Michael Rolo		01/17/13 15:20	Depleted
MC17505-7.7	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-7.7	Gary Krasinski	VOC Ref #1	01/22/13 09:50	Return to Storage
MC17505-7.10	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-7.10	Gary Krasinski	VOC Ref #1	01/22/13 09:50	Return to Storage
MC17505-7.11	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-7.11	Gary Krasinski	VOC Ref #1	01/22/13 09:50	Return to Storage
MC17505-7.12	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-7.12	Gary Krasinski	VOC Ref #1	01/22/13 09:50	Return to Storage
MC17505-7.14	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-7.14	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-7.17	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-7.17	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-7.18	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-7.18	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-8.1	Walk In Ref #22	Michael Rolo	01/15/13 07:26	Retrieve from Storage
MC17505-8.1	Michael Rolo	Walk In Ref #22	01/15/13 08:22	Return to Storage
MC17505-8.1	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-8.1	Michael Rolo		01/17/13 15:20	Depleted
MC17505-8.3	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-8.3	Gary Krasinski	VOC Ref #1	01/22/13 09:50	Return to Storage
MC17505-8.6	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-8.6	Bijan Jafari		01/17/13 19:07	Depleted

5.3
5

Accutest Internal Chain of Custody

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17505-9.2	Walk In Ref #22	Michael Rolo	01/16/13 07:52	Retrieve from Storage
MC17505-9.2	Michael Rolo		01/17/13 15:20	Depleted
MC17505-9.4	VOC Ref #1	Gary Krasinski	01/21/13 11:09	Retrieve from Storage
MC17505-9.4	Gary Krasioski	VOC Ref #1	01/22/13 09:50	Return to Storage
MC17505-9.5	VOC Ref #1	Bijan Jafari	01/17/13 13:21	Retrieve from Storage
MC17505-9.5	Bijan Jafari		01/17/13 19:07	Depleted
MC17505-10.2	VOC Ref #1	Gary Krasinski	01/21/13 10:06	Retrieve from Storage
MC17505-10.2	Gary Krasinski	VOC Ref #1	01/22/13 09:50	Return to Storage
MC17505-11.2	VOC Ref #1	Bijan Jafari	01/17/13 13:22	Retrieve from Storage
MC17505-11.2	Bijan Jafari		01/17/13 19:07	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxaua 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2185-MB	K66562.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ng/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ng/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ng/l	
95-49-8	o-Chlorotolnene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dihromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ng/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ng/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2185-MB	K66562.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzeue	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ng/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Tricbloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2185-MB	K66562.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	70-130%
2037-26-5	Toluene-D8	109%	70-130%
460-00-4	4-Bromofluorobenzene	108%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ng/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ng/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromofluorobenzene	114%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-MB	K66664.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-2, MC17505-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.24	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	70-130%
2037-26-5	Toluene-D8	107%	70-130%
460-00-4	4-Bromofluorobenzene	111%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-BS	K66661.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-2, MC17505-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	52.8	106	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	113%	70-130%
460-00-4	4-Bromofluorobenzene	117%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2185-BS	K66559.D	1	01/18/13	GK	n/a	n/a	MSK2185
MSK2185-BSD	K66560.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	60.3	121	56.2	112	7	70-130/25
107-02-8	Acrolein	250	186	74	207	83	11	70-130/25
107-13-1	Acrylonitrile	50	58.9	118	58.4	117	1	70-130/25
71-43-2	Benzene	50	53.3	107	55.5	111	4	70-130/25
108-86-1	Bromobenzene	50	56.5	113	60.6	121	7	70-130/25
74-97-5	Bromochloromethane	50	52.1	104	53.2	106	2	70-130/25
75-27-4	Bromodichloromethane	50	52.5	105	53.7	107	2	70-130/25
75-25-2	Bromoform	50	48.7	97	51.4	103	5	70-130/25
74-83-9	Bromomethane	50	51.4	103	51.0	102	1	70-130/25
78-93-3	2-Butanone (MEK)	50	56.4	113	55.7	111	1	70-130/25
104-51-8	n-Butylbenzene	50	64.1	128	66.3	133* a	3	70-130/25
135-98-8	sec-Butylbenzene	50	59.2	118	61.2	122	3	70-130/25
98-06-6	tert-Butylbenzene	50	57.7	115	60.4	121	5	70-130/25
75-15-0	Carbon disulfide	50	55.5	111	57.4	115	3	70-130/25
56-23-5	Carbon tetrachloride	50	48.8	98	51.8	104	6	70-130/25
108-90-7	Chlorobenzene	50	48.1	96	52.4	105	9	70-130/25
75-00-3	Chloroethane	50	56.3	113	56.9	114	1	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	19.6	39* a	19.4	39* a	1	70-130/25
67-66-3	Chloroform	50	50.4	101	51.8	104	3	70-130/25
74-87-3	Chloromethane	50	62.3	125	54.8	110	13	70-130/25
95-49-8	o-Chlorotoluene	50	60.6	121	63.1	126	4	70-130/25
106-43-4	p-Chlorotoluene	50	60.3	121	63.1	126	5	70-130/25
124-48-1	Dibromochloromethane	50	53.4	107	57.4	115	7	70-130/25
95-50-1	1,2-Dichlorobenzene	50	52.7	105	55.1	110	4	70-130/25
541-73-1	1,3-Dichlorobenzene	50	52.4	105	55.3	111	5	70-130/25
106-46-7	1,4-Dichlorobenzene	50	52.1	104	55.0	110	5	70-130/25
75-71-8	Dichlorodifluoromethane	50	55.5	111	53.3	107	4	70-130/25
75-34-3	1,1-Dichloroethane	50	53.6	107	56.3	113	5	70-130/25
107-06-2	1,2-Dichloroethane	50	51.1	102	52.2	104	2	70-130/25
75-35-4	1,1-Dichloroethene	50	58.7	117	59.6	119	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	52.0	104	52.8	106	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	54.7	109	56.9	114	4	70-130/25
78-87-5	1,2-Dichloropropane	50	56.8	114	57.0	114	0	70-130/25
142-28-9	1,3-Dichloropropane	50	54.7	109	55.9	112	2	70-130/25
594-20-7	2,2-Dichloropropane	50	49.6	99	49.7	99	0	70-130/25
563-58-6	1,1-Dichloropropene	50	59.3	119	61.5	123	4	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2185-BS	K66559.D	1	01/18/13	GK	n/a	n/a	MSK2185
MSK2185-BSD	K66560.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	56.8	114	58.5	117	3	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	61.6	123	62.0	124	1	70-130/25
123-91-1	1,4-Dioxane	250	271	108	299	120	10	70-130/25
97-63-2	Ethyl methacrylate	50	52.1	104	52.1	104	0	77-137/25
100-41-4	Ethylbenzene	50	59.0	118	62.9	126	6	70-130/25
87-68-3	Hexachlorobutadiene	50	51.0	102	55.1	110	8	70-130/25
591-78-6	2-Hexanone	50	57.7	115	52.3	105	10	70-130/25
98-82-8	Isopropylbenzene	50	58.3	117	60.9	122	4	70-130/25
99-87-6	p-Isopropyltoluene	50	59.9	120	62.6	125	4	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	57.0	114	57.4	115	1	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	53.2	106	52.7	105	1	70-130/25
74-95-3	Methylene bromide	50	53.1	106	53.7	107	1	70-130/25
75-09-2	Methylene chloride	50	54.9	110	55.0	110	0	70-130/25
91-20-3	Naphthalene	50	51.0	102	51.4	103	1	70-130/25
103-65-1	n-Propylbenzene	50	62.1	124	64.6	129	4	70-130/25
100-42-5	Styrene	50	55.3	111	58.7	117	6	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	50.7	101	55.2	110	8	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	60.5	121	60.5	121	0	70-130/25
127-18-4	Tetrachloroethene	50	52.0	104	57.9	116	11	70-130/25
108-88-3	Toluene	50	58.9	118	61.6	123	4	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	51.7	103	53.5	107	3	70-130/25
120-82-1	1,2,4-Trichlorobeuzene	50	53.6	107	55.5	111	3	70-130/25
71-55-6	1,1,1-Trichloroethane	50	49.7	99	50.3	101	1	70-130/25
79-00-5	1,1,2-Trichloroethane	50	54.9	110	55.5	111	1	70-130/25
79-01-6	Trichloroethene	50	51.8	104	54.1	108	4	70-130/25
75-69-4	Trichlorofluoromethane	50	51.0	102	52.1	104	2	70-130/25
96-18-4	1,2,3-Trichloropropane	50	61.8	124	59.4	119	4	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.2	110	57.3	115	4	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	55.0	110	56.6	113	3	70-130/25
108-05-4	Vinyl Acetate	50	53.9	108	55.7	111	3	70-130/25
75-01-4	Vinyl chloride	50	52.6	105	48.7	97	8	70-130/25
	m,p-Xylene	100	120	120	128	128	6	70-130/25
95-47-6	o-Xylene	50	56.8	114	60.2	120	6	70-130/25
1330-20-7	Xylene (total)	150	176	117	188	125	7	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2185-BS	K66559.D	1	01/18/13	GK	n/a	n/a	MSK2185
MSK2185-BSD	K66560.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	95%	70-130%
2037-26-5	Toluene-D8	110%	110%	70-130%
460-00-4	4-Bromofluorobenzene	115%	115%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	73.3	147* a	59.8	120	20	70-130/25
107-02-8	Acrolein	250	172	69* a	184	74	7	70-130/25
107-13-1	Acrylonitrile	50	68.7	137* a	65.7	131* a	4	70-130/25
71-43-2	Benzene	50	57.5	115	55.6	111	3	70-130/25
108-86-1	Bromobenzene	50	54.9	110	55.3	111	1	70-130/25
74-97-5	Bromochloromethane	50	53.4	107	52.8	106	1	70-130/25
75-27-4	Bromodichloromethane	50	54.6	109	53.1	106	3	70-130/25
75-25-2	Bromoform	50	44.4	89	43.2	86	3	70-130/25
74-83-9	Bromomethane	50	56.9	114	53.6	107	6	70-130/25
78-93-3	2-Butanone (MEK)	50	59.9	120	56.4	113	6	70-130/25
104-51-8	n-Butylbenzene	50	65.1	130	63.9	128	2	70-130/25
135-98-8	sec-Butylbenzene	50	59.3	119	58.4	117	2	70-130/25
98-06-6	tert-Butylbenzene	50	58.9	118	58.3	117	1	70-130/25
75-15-0	Carbon disulfide	50	63.8	128	60.4	121	5	70-130/25
56-23-5	Carbon tetrachloride	50	51.0	102	48.8	98	4	70-130/25
108-90-7	Chlorobenzene	50	46.1	92	46.1	92	0	70-130/25
75-00-3	Chloroethane	50	66.2	132* a	61.8	124	7	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	17.4	35* a	17.1	34* a	2	70-130/25
67-66-3	Chloroform	50	56.1	112	53.6	107	5	70-130/25
74-87-3	Chloromethane	50	71.4	143* a	67.1	134* a	6	70-130/25
95-49-8	o-Chlorotoluene	50	60.8	122	60.3	121	1	70-130/25
106-43-4	p-Chlorotoluene	50	61.1	122	60.2	120	1	70-130/25
124-48-1	Dibromochloromethane	50	49.9	100	49.7	99	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	52.4	105	51.8	104	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	51.4	103	51.4	103	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	51.9	104	51.3	103	1	70-130/25
75-71-8	Dichlorodiflnoromethane	50	60.8	122	56.7	113	7	70-130/25
75-34-3	1,1-Dichloroethane	50	61.4	123	59.1	118	4	70-130/25
107-06-2	1,2-Dichloroethane	50	52.7	105	51.5	103	2	70-130/25
75-35-4	1,1-Dichloroethene	50	65.7	131* a	62.5	125	5	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	56.8	114	55.1	110	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	60.0	120	57.1	114	5	70-130/25
78-87-5	1,2-Dichloropropane	50	60.8	122	58.7	117	4	70-130/25
142-28-9	1,3-Dichloropropane	50	53.7	107	52.3	105	3	70-130/25
594-20-7	2,2-Dichloropropane	50	54.9	110	52.8	106	4	70-130/25
563-58-6	1,1-Dichloropropene	50	62.1	124	60.7	121	2	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	58.7	117	57.1	114	3	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	62.7	125	60.7	121	3	70-130/25
123-91-1	1,4-Dioxane	250	316	126	270	108	16	70-130/25
97-63-2	Ethyl methacrylate	50	51.8	104	51.7	103	0	77-137/25
100-41-4	Ethylbenzene	50	57.8	116	57.1	114	1	70-130/25
87-68-3	Hexachlorobutadiene	50	50.3	101	49.7	99	1	70-130/25
591-78-6	2-Hexanone	50	59.4	119	54.5	109	9	70-130/25
98-82-8	Isopropylbenzene	50	58.6	117	57.9	116	1	70-130/25
99-87-6	p-Isopropyltoluene	50	60.1	120	59.2	118	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	59.9	120	58.4	117	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	54.8	110	53.2	106	3	70-130/25
74-95-3	Methylene bromide	50	54.1	108	52.0	104	4	70-130/25
75-09-2	Methylene chloride	50	60.2	120	58.2	116	3	70-130/25
91-20-3	Naphthalene	50	48.9	98	48.3	97	1	70-130/25
103-65-1	n-Propylbenzene	50	63.0	126	61.3	123	3	70-130/25
100-42-5	Styrene	50	52.4	105	51.4	103	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	49.2	98	49.0	98	0	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	57.4	115	57.8	116	1	70-130/25
127-18-4	Tetrachloroethene	50	49.7	99	49.8	100	0	70-130/25
108-88-3	Toluene	50	61.1	122	59.3	119	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	50.3	101	49.6	99	1	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.1	104	52.1	104	0	70-130/25
71-55-6	1,1,1-Trichloroethane	50	54.6	109	51.9	104	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	55.2	110	53.8	108	3	70-130/25
79-01-6	Trichloroethene	50	55.0	110	52.8	106	4	70-130/25
75-69-4	Trichlorofluoromethane	50	55.7	111	52.8	106	5	70-130/25
96-18-4	1,2,3-Trichloropropane	50	60.5	121	59.1	118	2	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.5	111	54.9	110	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	55.3	111	54.6	109	1	70-130/25
108-05-4	Vinyl Acetate	50	60.9	122	57.7	115	5	70-130/25
75-01-4	Vinyl chloride	50	60.3	121	56.0	112	7	70-130/25
	m,p-Xylene	100	116	116	114	114	2	70-130/25
95-47-6	o-Xylene	50	54.1	108	54.1	108	0	70-130/25
1330-20-7	Xylene (total)	150	170	113	168	112	1	70-130/25

* = Outside of Control Limits.

6.3.2

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	102%	70-130%
2037-26-5	Toluene-D8	112%	111%	70-130%
460-00-4	4-Bromofluorobenzene	115%	116%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17426-3MS	K66580.D	1	01/18/13	GK	n/a	n/a	MSK2185
MC17426-3MSD	K66581.D	1	01/18/13	GK	n/a	n/a	MSK2185
MC17426-3	K66570.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Compound	MC17426-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	48.4	97	47.4	95	2	70-130/30
107-02-8	Acrolein	ND		250	1030	412* [a]	643	257* [a]	46* [b]	70-130/30
107-13-1	Acrylonitrile	ND		50	50.8	102	52.8	106	4	70-130/30
71-43-2	Benzene	ND		50	52.5	105	51.6	103	2	70-130/30
108-86-1	Bromobenzene	ND		50	52.7	105	52.1	104	1	70-130/30
74-97-5	Bromochloromethaue	ND		50	48.8	98	49.6	99	2	70-130/30
75-27-4	Bromodichloromethane	ND		50	48.2	96	47.9	96	1	70-130/30
75-25-2	Bromoform	ND		50	40.4	81	40.2	80	0	70-130/30
74-83-9	Bromomethane	ND		50	46.4	93	49.5	99	6	70-130/30
78-93-3	2-Butanoue (MEK)	ND		50	46.5	93	48.4	97	4	70-130/30
104-51-8	n-Butylbenzene	ND		50	53.6	107	55.0	110	3	70-130/30
135-98-8	sec-Butylbenzene	ND		50	52.3	105	53.0	106	1	70-130/30
98-06-6	tert-Butylbenzene	ND		50	52.6	105	52.7	105	0	70-130/30
75-15-0	Carbon disulfide	ND		50	50.3	101	51.7	103	3	70-130/30
56-23-5	Carbon tetrachloride	ND		50	45.6	91	46.8	94	3	70-130/30
108-90-7	Chlorobenzene	ND		50	46.6	93	46.2	92	1	70-130/30
75-00-3	Chloroethane	ND		50	53.3	107	56.5	113	6	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		50	47.9	96	49.0	98	2	70-130/30
74-87-3	Cblormethane	ND		50	48.1	96	53.8	108	11	70-130/30
95-49-8	o-Chlorotoluene	ND		50	54.6	109	54.5	109	0	70-130/30
106-43-4	p-Chlorotoluene	ND		50	53.8	108	53.8	108	0	70-130/30
124-48-1	Dibromochloromethane	ND		50	46.2	92	45.9	92	1	70-130/30
95-50-1	1,2-Dicblorobenzene	ND		50	48.6	97	49.0	98	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	48.9	98	48.3	97	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	48.4	97	48.2	96	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	46.3	93	50.6	101	9	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	52.5	105	52.9	106	1	70-130/30
107-06-2	1,2-Dicbloroethane	ND		50	47.9	96	47.1	94	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	55.8	112	56.1	112	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	50.6	101	51.1	102	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	51.9	104	52.0	104	0	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	53.2	106	54.3	109	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	50.4	101	49.8	100	1	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	42.7	85	42.9	86	0	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	56.9	114	55.2	110	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17426-3MS	K66580.D	1	01/18/13	GK	n/a	n/a	MSK2185
MC17426-3MSD	K66581.D	1	01/18/13	GK	n/a	n/a	MSK2185
MC17426-3	K66570.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Compound	MC17426-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	51.2	102	50.6	101	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	51.3	103	50.7	101	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	254	102	225	90	12	70-130/30
97-63-2	Ethyl methacrylate	ND		50	41.7	83	41.0	82	2	72-139/30
100-41-4	Ethylbenzene	ND		50	52.8	106	53.0	106	0	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	46.9	94	48.8	98	4	70-130/30
591-78-6	2-Hexanone	ND		50	46.3	93	47.5	95	3	70-130/30
98-82-8	Isopropylbenzene	ND		50	52.0	104	52.4	105	1	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	50.0	100	50.5	101	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.3	103	52.9	106	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	47.7	95	46.9	94	2	70-130/30
74-95-3	Methylene bromide	ND		50	48.7	97	48.4	97	1	70-130/30
75-09-2	Methylene chloride	ND		50	51.5	103	52.9	106	3	70-130/30
91-20-3	Naphthalene	ND		50	44.3	89	44.9	90	1	70-130/30
103-65-1	n-Propylbenzene	ND		50	53.8	108	54.5	109	1	70-130/30
100-42-5	Styrene	ND		50	21.1	42* [a]	20.8	42* [a]	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	48.5	97	49.5	99	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	52.4	105	51.8	104	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	49.5	99	48.8	98	1	70-130/30
108-88-3	Toluene	ND		50	54.5	109	53.8	108	1	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	45.2	90	48.1	96	6	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	48.1	96	50.6	101	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	47.6	95	48.4	97	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	49.8	100	49.9	100	0	70-130/30
79-01-6	Trichloroethene	ND		50	50.2	100	49.1	98	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	48.4	97	49.2	98	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	51.0	102	50.4	101	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	35.8	72	36.2	72	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	36.2	72	36.2	72	0	70-130/30
108-05-4	Vinyl Acetate	ND		50	42.2	84	42.1	84	0	70-130/30
75-01-4	Vinyl chloride	ND		50	42.9	86	46.3	93	8	70-130/30
	m,p-Xylene	ND		100	98.4	98	97.6	98	1	70-130/30
95-47-6	o-Xylene	ND		50	47.2	94	47.1	94	0	70-130/30
1330-20-7	Xylene (total)	ND		150	146	97	145	97	1	70-130/30

* = Outside of Control Limits.

6.4.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17426-3MS	K66580.D	1	01/18/13	GK	n/a	n/a	MSK2185
MC17426-3MSD	K66581.D	1	01/18/13	GK	n/a	n/a	MSK2185
MC17426-3	K66570.D	1	01/18/13	GK	n/a	n/a	MSK2185

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-5

CAS No.	Surrogate Recoveries	MS	MSD	MC17426-3	Limits
1868-53-7	Dibromofluoromethane	99%	100%	117%	70-130%
2037-26-5	Toluene-D8	109%	108%	107%	70-130%
460-00-4	4-Bromofluorobenzene	111%	111%	109%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	62.6	125	58.5	117	7	70-130/30
107-02-8	Acrolein	ND		250	1130	452* a	1150	460* a	2	70-130/30
107-13-1	Acrylonitrile	ND		50	56.4	113	57.4	115	2	70-130/30
71-43-2	Benzene	ND		50	53.2	106	52.1	104	2	70-130/30
108-86-1	Bromobenzene	ND		50	51.9	104	51.6	103	1	70-130/30
74-97-5	Bromochloromethane	ND		50	49.3	99	50.2	100	2	70-130/30
75-27-4	Bromodichloromethane	ND		50	51.3	103	50.1	100	2	70-130/30
75-25-2	Bromoform	ND		50	42.1	84	40.8	82	3	70-130/30
74-83-9	Bromomethane	ND		50	47.9	96	48.4	97	1	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	47.9	96	52.4	105	9	70-130/30
104-51-8	n-Butylbenzene	ND		50	59.8	120	58.7	117	2	70-130/30
135-98-8	sec-Butylbenzene	ND		50	55.1	110	54.2	108	2	70-130/30
98-06-6	tert-Butylbenzene	ND		50	54.3	109	53.6	107	1	70-130/30
75-15-0	Carbon disulfide	ND		50	51.6	103	51.6	103	0	70-130/30
56-23-5	Carbon tetrachloride	ND		50	48.7	97	46.8	94	4	70-130/30
108-90-7	Chlorobenzene	ND		50	44.9	90	44.5	89	1	70-130/30
75-00-3	Chloroethane	ND		50	55.7	111	56.5	113	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* a	ND	0* a	nc	70-130/30
67-66-3	Chloroform	ND		50	51.9	104	51.5	103	1	70-130/30
74-87-3	Chloromethane	ND		50	53.3	107	53.2	106	0	70-130/30
95-49-8	o-Chlorotoluene	ND		50	55.7	111	55.1	110	1	70-130/30
106-43-4	p-Chlorotoluene	ND		50	56.8	114	55.6	111	2	70-130/30
124-48-1	Dibromochloromethane	ND		50	46.6	93	47.1	94	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	48.4	97	47.9	96	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	49.3	99	48.8	98	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	50.0	100	49.8	100	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	51.5	103	49.8	100	3	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	55.3	111	54.8	110	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	49.6	99	49.0	98	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	57.2	114	57.0	114	0	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	51.5	103	52.0	104	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	52.5	105	52.2	104	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	55.2	110	55.2	110	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	50.4	101	50.2	100	0	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	51.6	103	51.1	102	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	57.2	114	56.1	112	2	70-130/30

* = Outside of Control Limits.

6.4.2

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	52.0	104	52.0	104	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	53.6	107	54.0	108	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	214	86	275	110	25	70-130/30
97-63-2	Ethyl methacrylate	ND		50	47.2	94	47.5	95	1	72-139/30
100-41-4	Ethylbenzene	ND		50	54.8	110	52.9	106	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	50.0	100	49.5	99	1	70-130/30
591-78-6	2-Hexanone	ND		50	47.1	94	50.0	100	6	70-130/30
98-82-8	Isopropylbenzene	ND		50	54.0	108	53.0	106	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	56.4	113	54.9	110	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.1	102	52.6	105	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	48.7	97	49.3	99	1	70-130/30
74-95-3	Methylene bromide	ND		50	50.4	101	50.0	100	1	70-130/30
75-09-2	Methylene chloride	ND		50	53.2	106	54.1	108	2	70-130/30
91-20-3	Naphthalene	ND		50	44.5	89	45.9	92	3	70-130/30
103-65-1	n-Propylbenzene	ND		50	57.9	116	57.1	114	1	70-130/30
100-42-5	Styrene	ND		50	47.6	95	46.5	93	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	47.7	95	47.3	95	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	53.6	107	54.3	109	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	48.3	97	47.7	95	1	70-130/30
108-88-3	Tolnene	ND		50	56.8	114	55.7	111	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	46.1	92	47.3	95	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	47.6	95	49.3	99	4	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	51.0	102	49.6	99	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	51.3	103	52.1	104	2	70-130/30
79-01-6	Trichloroethene	ND		50	51.2	102	50.0	100	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	52.9	106	51.0	102	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	52.0	104	52.5	105	1	70-130/30
95-63-6	1,2,4-Trimethylhenzene	ND		50	50.6	101	50.9	102	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	51.2	102	50.5	101	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	50.7	101	52.8	106	4	70-130/30
75-01-4	Vinyl chloride	ND		50	47.9	96	47.7	95	0	70-130/30
	m,p-Xylene	ND		100	111	111	108	108	3	70-130/30
95-47-6	o-Xylene	ND		50	52.7	105	51.1	102	3	70-130/30
1330-20-7	Xylene (total)	ND		150	164	109	159	106	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-7, MC17505-8, MC17505-9, MC17505-10

CAS No.	Surrogate Recoveries	MS	MSD	MC17505-7	Limits
1868-53-7	Dibromofluoromethane	104%	105%	116%	70-130%
2037-26-5	Toluene-D8	109%	111%	109%	70-130%
460-00-4	4-Bromofluorobenzene	115%	114%	109%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17565-6MS	K66676.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6MSD	K66677.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6	K66672.D	10	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17505-2, MC17505-4

CAS No.	Compound	MC17565-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	15.4		500	528	103	538	105	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC17565-6	Limits
1868-53-7	Dibromofluoromethane	101%	100%	105%	70-130%
2037-26-5	Toluene-D8	112%	112%	110%	70-130%
460-00-4	4-Bromofluorobenzene	115%	114%	117%	70-130%

* = Outside of Control Limits.

6.4.3

Volatile Internal Standard Area Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2185-CC2177	Injection Date:	01/18/13
Lab File ID:	K66558.D	Injection Time:	08:14
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	137065	8.81	216460	9.66	101801	12.92	112679	15.48	24791	6.41
Upper Limit [a]	274130	9.31	432920	10.16	203602	13.42	225358	15.98	49582	6.91
Lower Limit [b]	68533	8.31	108230	9.16	50901	12.42	56340	14.98	12396	5.91
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2185-BS	147931	8.81	226531	9.66	106337	12.92	112907	15.48	27458	6.41
MSK2185-BSD	152682	8.82	226160	9.66	104335	12.92	113024	15.48	26033	6.40
MSK2185-MB	139125	8.81	216702	9.66	94343	12.92	105306	15.48	22749	6.40
ZZZZZZ	133050	8.81	209488	9.66	92172	12.92	101073	15.48	20263	6.40
ZZZZZZ	133518	8.81	211829	9.66	92432	12.92	100034	15.48	24513	6.40
ZZZZZZ	134134	8.82	217149	9.66	93378	12.92	99127	15.48	20983	6.40
MC17505-5	127032	8.82	203387	9.66	90163	12.92	94173	15.48	18547	6.40
ZZZZZZ	126200	8.81	200730	9.66	86330	12.92	94730	15.48	19795	6.40
ZZZZZZ	113366	8.82	181608	9.66	83092	12.92	89292	15.48	21657	6.40
ZZZZZZ	114113	8.82	182911	9.66	82818	12.92	88788	15.48	17714	6.40
MC17426-3	112353	8.81	184024	9.66	81710	12.92	87679	15.48	17972	6.40
ZZZZZZ	131010	8.82	201397	9.66	87909	12.92	97857	15.48	21365	6.41
MC17455-1	120354	8.82	196271	9.67	87937	12.92	90309	15.48	20784	6.40
MC17505-2	127273	8.82	201375	9.66	97075	12.92	102476	15.48	21261	6.41
MC17505-3	129531	8.81	205033	9.66	93102	12.92	101245	15.48	20221	6.40
MC17505-4	128016	8.81	196723	9.66	95138	12.92	102135	15.48	21948	6.41
ZZZZZZ	134180	8.82	210828	9.66	96789	12.92	109169	15.48	22355	6.40
ZZZZZZ	139428	8.81	223875	9.66	101383	12.92	113203	15.48	23839	6.40
ZZZZZZ	152190	8.81	233406	9.66	106935	12.92	118544	15.48	27702	6.41
ZZZZZZ	156163	8.82	246206	9.66	106371	12.92	118787	15.48	28720	6.40
MC17426-3MS	148401	8.81	227691	9.66	107444	12.92	116451	15.48	25151	6.40
MC17426-3MSD	143124	8.81	222873	9.66	104949	12.92	114352	15.48	23802	6.40
MC17455-1MS	145432	8.81	226179	9.66	105485	12.92	115026	15.48	26925	6.41
MC17455-1MSD	152102	8.81	235521	9.66	109425	12.92	118936	15.48	30432	6.41
MC17505-1	149849	8.81	234725	9.66	113598	12.92	121963	15.48	27884	6.40

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2187-CC2177	Injection Date:	01/21/13
Lab File ID:	K66609.D	Injection Time:	08:26
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	138552	8.81	213045	9.66	100184	12.92	109189	15.48	23867	6.40
Upper Limit [a]	277104	9.31	426090	10.16	200368	13.42	218378	15.98	47734	6.90
Lower Limit [b]	69276	8.31	106523	9.16	50092	12.42	54595	14.98	11934	5.90
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2187-BS	129577	8.81	207635	9.66	101158	12.92	105009	15.48	25696	6.40
MSK2187-BSD	135046	8.82	215591	9.66	104126	12.92	107328	15.48	26749	6.41
MSK2187-MB	127508	8.81	203836	9.66	92799	12.92	95831	15.48	22013	6.40
MC17505-10	123427	8.81	195018	9.66	85662	12.92	93106	15.48	15660	6.39
ZZZZZZ	119529	8.82	192962	9.66	88041	12.92	90200	15.48	17867	6.40
ZZZZZZ	119353	8.81	189841	9.66	83127	12.92	89914	15.48	20395	6.40
ZZZZZZ	118545	8.82	190936	9.66	85279	12.92	92391	15.48	20579	6.40
MC17505-7	118633	8.82	191605	9.67	86501	12.92	91892	15.48	20436	6.41
MC17505-9	114272	8.82	186251	9.66	82264	12.92	87542	15.48	18074	6.40
MC17505-7MS	126249	8.82	200989	9.66	96366	12.92	103044	15.48	20213	6.41
MC17505-7MSD	127215	8.82	202101	9.66	97438	12.92	102908	15.48	21565	6.40
MC17505-8	131193	8.81	200818	9.66	93322	12.92	98311	15.48	15617	6.40
ZZZZZZ	133103	8.82	208549	9.66	94192	12.92	97177	15.48	20321	6.40
ZZZZZZ	122880	8.81	199289	9.66	88034	12.92	92589	15.48	22466	6.40
ZZZZZZ	119068	8.82	192468	9.66	86617	12.92	91114	15.48	20912	6.40
ZZZZZZ	113983	8.82	187028	9.66	84310	12.92	89575	15.48	17333	6.40
ZZZZZZ	111425	8.82	177914	9.67	82076	12.92	86311	15.48	18445	6.40
ZZZZZZ	105044	8.82	173220	9.66	79449	12.92	83777	15.48	16007	6.40
ZZZZZZ	106168	8.82	172087	9.66	79479	12.92	85545	15.48	16174	6.40
ZZZZZZ	102502	8.82	169711	9.67	77903	12.92	82357	15.48	16554	6.40
ZZZZZZ	98649	8.81	164923	9.66	77009	12.92	81754	15.48	15547	6.40
ZZZZZZ	100543	8.82	168022	9.67	79028	12.92	86422	15.48	15676	6.40
ZZZZZZ	103439	8.81	170761	9.66	79240	12.92	84782	15.48	16998	6.40

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2189-CC2177	Injection Date:	01/22/13
Lab File ID:	K66660.D	Injection Time:	08:35
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	192025	8.81	299925	9.66	136059	12.92	140098	15.48	44542	6.40
Upper Limit [a]	384050	9.31	599850	10.16	272118	13.42	280196	15.98	89084	6.90
Lower Limit [b]	96013	8.31	149963	9.16	68030	12.42	70049	14.98	22271	5.90
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2189-BS	150358	8.81	236966	9.66	114117	12.92	117257	15.48	29691	6.41
MSK2189-MB	139578	8.82	221903	9.66	97414	12.92	108506	15.48	24386	6.41
ZZZZZZ	149439	8.82	233763	9.67	100874	12.92	107991	15.48	22167[c]	6.41
ZZZZZZ	142327	8.82	225796	9.66	96519	12.92	104773	15.48	23303	6.40
ZZZZZZ	133003	8.82	214101	9.66	94188	12.92	99511	15.48	19905[c]	6.40
ZZZZZZ	122772	8.82	200256	9.66	88912	12.92	96025	15.48	26199	6.40
ZZZZZZ	118954	8.81	196001	9.66	88200	12.92	92261	15.48	26932	6.40
ZZZZZZ	135814	8.81	212274	9.66	96886	12.92	100434	15.48	20123[c]	6.40
MC17565-6	129581	8.81	206286	9.66	94152	12.92	100471	15.48	23951	6.40
ZZZZZZ	130749	8.81	206057	9.66	94741	12.92	105099	15.48	19245[c]	6.40
MC17505-2	136503	8.82	210247	9.66	94542	12.92	101438	15.48	22151[c]	6.40
MC17505-4	133927	8.81	210187	9.66	93874	12.92	97462	15.48	21028[c]	6.40
MC17565-6MS	132546	8.81	208478	9.66	101277	12.92	106375	15.48	20887[c]	6.41
MC17565-6MSD	138334	8.81	217955	9.66	106144	12.92	110222	15.48	25060	6.41
ZZZZZZ	139672	8.81	223031	9.66	99885	12.92	106600	15.48	21619[c]	6.40
ZZZZZZ	135337	8.81	217915	9.66	96039	12.92	103746	15.48	20255[c]	6.40
ZZZZZZ	131365	8.82	211059	9.66	94054	12.92	100662	15.48	22070[c]	6.40
ZZZZZZ	130664	8.81	210290	9.66	90603	12.92	95688	15.48	22661	6.40
ZZZZZZ	134931	8.81	209046	9.66	99172	12.92	109709	15.48	24029	6.41
ZZZZZZ	138260	8.81	216902	9.66	102499	12.92	110556	15.48	27399	6.41
ZZZZZZ	142978	8.81	213173	9.66	103256	12.92	111844	15.48	28140	6.41
ZZZZZZ	140323	8.81	211007	9.66	98482	12.92	109518	15.48	23169	6.40

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this interual standard.

6.5.3

Volatile Surrogate Recovery Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17505-1	K66584.D	100.0	111.0	117.0
MC17505-2	K66674.D	108.0	108.0	110.0
MC17505-2	K66573.D	107.0	117.0	119.0
MC17505-3	K66574.D	103.0	109.0	116.0
MC17505-4	K66675.D	110.0	107.0	112.0
MC17505-4	K66575.D	105.0	117.0	115.0
MC17505-5	K66566.D	113.0	108.0	113.0
MC17505-7	K66618.D	116.0	109.0	109.0
MC17505-8	K66624.D	104.0	111.0	114.0
MC17505-9	K66619.D	117.0	108.0	112.0
MC17505-10	K66614.D	111.0	110.0	109.0
MC17426-3MS	K66580.D	99.0	109.0	111.0
MC17426-3MSD	K66581.D	100.0	108.0	111.0
MC17505-7MS	K66621.D	104.0	109.0	115.0
MC17505-7MSD	K66622.D	105.0	111.0	114.0
MC17565-6MS	K66676.D	101.0	112.0	115.0
MC17565-6MSD	K66677.D	100.0	112.0	114.0
MSK2185-BS	K66559.D	98.0	110.0	115.0
MSK2185-BSD	K66560.D	95.0	110.0	115.0
MSK2185-MB	K66562.D	107.0	109.0	108.0
MSK2187-BS	K66610.D	102.0	112.0	115.0
MSK2187-BSD	K66611.D	102.0	111.0	116.0
MSK2187-MB	K66613.D	112.0	110.0	114.0
MSK2189-BS	K66661.D	100.0	113.0	117.0
MSK2189-MB	K66664.D	108.0	107.0	111.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.6.1

6

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31708-MB	F61145.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869

The QC reported here applies to the following samples: Method: SW846 8270C

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ng/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl henzyl phthalate	ND	5.0	0.66	ng/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ng/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31708-MB	F61145.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869

The QC reported here applies to the following samples: Method: SW846 8270C

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	37%	15-110%
4165-62-2	Phenol-d5	26%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	15-110%
4165-60-0	Nitrobenzeue-d5	62%	30-130%
321-60-8	2-Fluorobiphenyl	59%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

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

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31709-MB	I81268.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Metbylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ng/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	34%	15-110%
4165-62-2	Phenol-d5	28%	15-110%
118-79-6	2,4,6-Tribromophenol	59%	15-110%
4165-60-0	Nitrobenzene-d5	60%	30-130%
321-60-8	2-Fluorobiphenyl	59%	30-130%
1718-51-0	Terphenyl-d14	72%	30-130%

Blank Spike Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31708-BS	F61146.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869

The QC reported here applies to the following samples: Method: SW846 8270C

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	34.5	35	30-130
95-57-8	2-Chlorophenol	100	66.4	66	30-130
59-50-7	4-Chloro-3-methyl phenol	100	73.8	74	30-130
120-83-2	2,4-Dichlorophenol	100	73.5	74	30-130
105-67-9	2,4-Dimethylphenol	100	51.2	51	30-130
51-28-5	2,4-Dinitrophenol	100	75.3	75	30-130
534-52-1	4,6-Dinitro-o-cresol	100	86.1	86	30-130
95-48-7	2-Methylphenol	100	59.6	60	30-130
	3&4-Methylphenol	200	114	57	30-130
88-75-5	2-Nitrophenol	100	73.8	74	30-130
100-02-7	4-Nitrophenol	100	35.1	35	30-130
87-86-5	Pentachlorophenol	100	86.4	86	30-130
108-95-2	Phenol	100	29.5	30	30-130
95-95-4	2,4,5-Trichlorophenol	100	80.1	80	30-130
88-06-2	2,4,6-Trichlorophenol	100	81.1	81	30-130
62-53-3	Aniline	50	19.1	38* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	40.2	80	40-140
85-68-7	Bntyl benzyl phthalate	50	35.0	70	40-140
100-51-6	Benzyl Alcohol	50	31.4	63	40-140
91-58-7	2-Chloronaphthalene	50	36.1	72	40-140
106-47-8	4-Chloroaniline	50	28.9	58	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	31.5	63	40-140
111-44-4	bis(2-Chloroethyl)ether	50	35.4	71	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	38.8	78	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	40.9	82	40-140
122-66-7	1,2-Diphenylhydrazine	50	38.3	77	40-140
121-14-2	2,4-Dinitrotoluene	50	41.8	84	40-140
606-20-2	2,6-Dinitrotoluene	50	39.2	78	40-140
91-94-1	3,3'-Dichlorobenzidine	50	40.8	82	40-140
132-64-9	Dibenzofuran	50	36.7	73	40-140
84-74-2	Di-n-bntyl phthalate	50	37.4	75	40-140
117-84-0	Di-n-octyl phthalate	50	41.3	83	40-140
84-66-2	Diethyl phthalate	50	32.6	65	40-140
131-11-3	Dimethyl phthalate	50	18.5	37* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	40.1	80	40-140
118-74-1	Hexachlorobenzene	50	42.7	85	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31708-BS	F61146.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869

The QC reported here applies to the following samples: Method: SW846 8270C

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	15.9	32* [a]	40-140
67-72-1	Hexachloroethane	50	24.5	49	40-140
78-59-1	Isophorone	50	37.2	74	40-140
88-74-4	2-Nitroaniline	50	39.2	78	40-140
99-09-2	3-Nitroaniline	50	32.4	65	40-140
100-01-6	4-Nitroaniline	50	38.8	78	40-140
98-95-3	Nitrobenzene	50	34.8	70	40-140
62-75-9	n-Nitrosodimethylamine	50	23.1	46	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	38.0	76	40-140
86-30-6	N-Nitrosodiphenylamine	50	39.5	79	40-140
110-86-1	Pyridine	50	19.0	38* [a]	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	42%	15-110%
4165-62-2	Phenol-d5	30%	15-110%
118-79-6	2,4,6-Tribromophenol	84%	15-110%
4165-60-0	Nitrobenzene-d5	69%	30-130%
321-60-8	2-Fluorobiphenyl	65%	30-130%
1718-51-0	Terphenyl-d14	79%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31709-BS	I81269.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	36.2	72	40-140
208-96-8	Acenaphthylene	50	26.2	52	40-140
120-12-7	Anthracene	50	36.1	72	40-140
56-55-3	Benzo(a)anthracene	50	36.4	73	40-140
50-32-8	Benzo(a)pyrene	50	34.1	68	40-140
205-99-2	Benzo(b)fluoranthene	50	38.1	76	40-140
191-24-2	Benzo(g,h,i)perylene	50	38.9	78	40-140
207-08-9	Benzo(k)fluoranthene	50	34.7	69	40-140
218-01-9	Chrysene	50	37.5	75	40-140
53-70-3	Dibenzo(a,h)anthracene	50	37.2	74	40-140
206-44-0	Fluoranthene	50	37.3	75	40-140
86-73-7	Fluorene	50	35.6	71	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	36.8	74	40-140
90-12-0	1-Methylnaphthalene	50	31.3	63	40-140
91-57-6	2-Methylnaphthalene	50	29.6	59	40-140
85-01-8	Phenanthrene	50	37.8	76	40-140
129-00-0	Pyrene	50	37.1	74	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	39%	15-110%
4165-62-2	Phenol-d5	29%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	62%	30-130%
1718-51-0	Terphenyl-d14	69%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31708-MS	F61147.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
OP31708-MSD	F61148.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
MC17505-7	F61149.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869

The QC reported here applies to the following samples: Method: SW846 8270C

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

7.3.1

7

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		105	31.7	30	33.8	32	6	30-130/20
95-57-8	2-Chlorophenol	ND		105	66.4	63	65.4	63	2	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		105	78.6	75	71.0	68	10	30-130/20
120-83-2	2,4-Dichlorophenol	ND		105	77.6	74	71.5	69	8	30-130/20
105-67-9	2,4-Dimethylphenol	ND		105	56.8	54	50.3	48	12	30-130/20
51-28-5	2,4-Dinitrophenol	ND		105	80.3	76	74.6	72	7	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		105	88.1	84	83.8	80	5	30-130/20
95-48-7	2-Methylphenol	ND		105	61.9	59	60.7	58	2	30-130/20
	3&4-Methylphenol	ND		211	119	57	117	56	2	30-130/20
88-75-5	2-Nitrophenol	ND		105	75.4	72	71.8	69	5	30-130/20
100-02-7	4-Nitrophenol	ND		105	32.8	31	36.1	35	10	30-130/20
87-86-5	Pentachlorophenol	ND		105	84.6	80	78.1	75	8	30-130/20
108-95-2	Phenol	ND		105	28.5	27* a	32.3	31	13	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		105	82.9	79	77.1	74	7	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		105	80.5	76	75.8	73	6	30-130/20
62-53-3	Aniline	ND		52.6	20.2	38* a	19.3	37* a	5	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		52.6	38.7	74	34.6	66	11	40-140/20
85-68-7	Butyl benzyl phthalate	ND		52.6	37.3	71	33.8	65	10	40-140/20
100-51-6	Benzyl Alcohol	ND		52.6	30.5	58	28.6	55	6	40-140/20
91-58-7	2-Chloronaphthalene	ND		52.6	36.8	70	34.5	66	6	40-140/20
106-47-8	4-Chloroaniline	ND		52.6	33.0	63	29.5	57	11	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		52.6	35.2	67	33.4	64	5	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		52.6	36.7	70	35.4	68	4	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		52.6	41.2	78	40.2	77	2	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		52.6	39.3	75	35.4	68	10	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		52.6	38.6	73	35.2	68	9	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		52.6	44.3	84	40.7	78	8	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		52.6	40.3	77	38.1	73	6	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		52.6	42.9	82	39.1	75	9	40-140/20
132-64-9	Dibenzofuran	ND		52.6	36.3	69	34.1	65	6	40-140/20
84-74-2	Di-n-butyl phthalate	ND		52.6	38.0	72	34.6	66	9	40-140/20
117-84-0	Di-n-octyl phthalate	ND		52.6	30.2	57	25.8	50	16	40-140/20
84-66-2	Diethyl phthalate	ND		52.6	42.6	81	39.6	76	7	40-140/20
131-11-3	Dimethyl phthalate	ND		52.6	39.7	75	38.2	73	4	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		52.6	30.4	58	26.0	50	16	40-140/20
118-74-1	Hexachlorobenzene	ND		52.6	35.3	67	30.9	59	13	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31708-MS	F61147.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
OP31708-MSD	F61148.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869
MC17505-7	F61149.D	1	01/17/13	KR	01/16/13	OP31708	MSF2869

The QC reported here applies to the following samples: Method: SW846 8270C

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

7.3.1

7

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		52.6	16.1	31* a	16.6	32* a	3	40-140/20
67-72-1	Hexachloroethane	ND		52.6	27.8	53	28.9	55	4	40-140/20
78-59-1	Isophorone	ND		52.6	41.2	78	37.7	72	9	40-140/20
88-74-4	2-Nitroaniline	ND		52.6	42.7	81	40.6	78	5	40-140/20
99-09-2	3-Nitroaniline	ND		52.6	35.1	67	33.1	64	6	40-140/20
100-01-6	4-Nitroaniline	ND		52.6	39.0	74	36.3	70	7	40-140/20
98-95-3	Nitrobenzene	ND		52.6	37.7	72	35.8	69	5	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		52.6	22.3	42	21.7	42	3	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		52.6	40.1	76	39.3	75	2	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		52.6	40.3	77	37.6	72	7	40-140/20
110-86-1	Pyridine	ND		52.6	19.1	36* a	17.2	33* a	10	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17505-7	Limits
367-12-4	2-Fluorophenol	38%	42%	37%	15-110%
4165-62-2	Phenol-d5	27%	31%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	80%	75%	69%	15-110%
4165-60-0	Nitrobenzene-d5	73%	69%	61%	30-130%
321-60-8	2-Fluorobiphenyl	66%	62%	63%	30-130%
1718-51-0	Terphenyl-d14	49%	42%	64%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31709-MS	I81270.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
OP31709-MSD	I81271.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025
MC17505-7	I81276.D	1	01/18/13	NS	01/16/13	OP31709	MSI3025

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-7, MC17505-8, MC17505-9

7.3.2

7

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		52.6	36.9	70	34.1	65	8	40-140/20
208-96-8	Acenaphthylene	ND		52.6	26.8	51	24.9	48	7	40-140/20
120-12-7	Anthracene	ND		52.6	34.8	66	32.4	62	7	40-140/20
56-55-3	Benzo(a)anthracene	ND		52.6	29.6	56	26.1	50	13	40-140/20
50-32-8	Benzo(a)pyrene	ND		52.6	26.8	51	23.5	45	13	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		52.6	28.1	53	24.7	47	13	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		52.6	29.5	56	25.8	50	13	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		52.6	29.0	55	25.2	48	14	40-140/20
218-01-9	Chrysene	ND		52.6	30.6	58	27.4	53	11	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		52.6	28.2	54	24.6	47	14	40-140/20
206-44-0	Fluoranthene	ND		52.6	34.5	66	31.0	60	11	40-140/20
86-73-7	Fluorene	ND		52.6	35.6	68	32.7	63	8	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		52.6	27.9	53	24.4	47	13	40-140/20
90-12-0	1-Methylnaphthalene	ND		52.6	32.5	62	31.0	60	5	40-140/20
91-57-6	2-Methylnaphthalene	ND		52.6	30.4	58	29.3	56	4	40-140/20
85-01-8	Phenanthrene	0.032	J	52.6	36.8	70	34.0	65	8	40-140/20
129-00-0	Pyrene	ND		52.6	33.9	64	31.1	60	9	40-140/20

CAS No.	Surrogate Recoverics	MS	MSD	MC17505-7	Limits
367-12-4	2-Fluorophenol	35%	39%	34%	15-110%
4165-62-2	Phenol-d5	27%	30%	32%	15-110%
118-79-6	2,4,6-Tribromophenol	74%	69%	68%	15-110%
4165-60-0	Nitrobenzene-d5	71%	67%	61%	30-130%
321-60-8	2-Fluorobiphenyl	64%	58%	62%	30-130%
1718-51-0	Terphenyl-d14	44%	38%	59%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2869-CC2858	Injection Date:	01/17/13
Lab File ID:	F61144.D	Injection Time:	14:26
Instrument ID:	GCMSF	Method:	SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	104868	3.97	364011	4.95	259266	6.38	516289	7.72	635992	10.49	595348	11.94
Upper Limit [a]	209736	4.47	728022	5.45	518532	6.88	1032578	8.22	1271984	10.99	1190696	12.44
Lower Limit [b]	52434	3.47	182006	4.45	129633	5.88	258145	7.22	317996	9.99	297674	11.44
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31708-MB	108629	3.97	381499	4.95	263827	6.38	508736	7.72	614780	10.48	617336	11.93
OP31708-BS	119628	3.97	413212	4.95	290731	6.37	553532	7.72	683535	10.48	665769	11.94
OP31708-MS	118130	3.97	397032	4.95	284836	6.38	547467	7.72	687190	10.48	684966	11.94
OP31708-MSD	126286	3.97	445067	4.95	313326	6.38	605454	7.72	745823	10.48	740778	11.94
MC17505-7	103108	3.97	367173	4.95	250912	6.38	497273	7.71	600544	10.48	586873	11.93
MC17505-1	93333	3.97	323207	4.95	228957	6.38	445443	7.71	551711	10.48	555548	11.93
MC17505-2	107811	3.97	369051	4.95	257514	6.38	492429	7.72	617351	10.48	613182	11.93
MC17505-3	131048	3.97	462747	4.95	327639	6.38	626848	7.71	781870	10.48	787135	11.94
MC17505-4	128605	3.97	445927	4.95	313313	6.37	600249	7.71	737757	10.48	729621	11.94
MC17505-8	121742	3.97	420883	4.95	298902	6.37	570032	7.72	720842	10.48	711164	11.93
MC17505-9	121740	3.97	422172	4.95	296238	6.37	584103	7.71	748267	10.48	739057	11.94
ZZZZZZ	111417	3.97	387237	4.95	276402	6.38	529763	7.71	643446	10.48	627359	11.94
ZZZZZZ	81710	3.97	288490	4.95	204599	6.37	402840	7.72	490582	10.48	467827	11.94
ZZZZZZ	90004	3.97	307218	4.95	218026	6.37	424642	7.71	515527	10.48	508872	11.94
ZZZZZZ	82478	3.97	281914	4.95	197178	6.37	377628	7.72	476168	10.48	465067	11.93
ZZZZZZ	120513	3.97	409025	4.95	289078	6.38	570191	7.72	689568	10.48	716060	11.93
ZZZZZZ	123532	3.97	431254	4.95	299614	6.37	573623	7.72	720291	10.48	729133	11.94
ZZZZZZ	107960	3.97	372981	4.95	263502	6.37	505367	7.71	637190	10.48	633705	11.94
ZZZZZZ	105811	3.97	365156	4.96	251952	6.38	492279	7.72	600538	10.48	609696	11.94

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSI3025-CC3022	Injection Date:	01/18/13
Lab File ID:	I81257.D	Injection Time:	09:18
Instrument ID:	GCMSI	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	308237	3.57	836050	4.53	389174	5.94	604060	7.20	375202	9.94	816180	11.34
Upper Limit [a]	616474	4.07	1672100	5.03	778348	6.44	1208120	7.70	750404	10.44	1632360	11.84
Lower Limit [b]	154119	3.07	418025	4.03	194587	5.44	302030	6.70	187601	9.44	408090	10.84
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	416198	3.57	1154385	4.54	551176	5.94	827912	7.20	516512	9.94	1072960	11.34
ZZZZZZ	434197	3.57	1199599	4.54	560455	5.94	848595	7.20	526316	9.94	1100199	11.34
ZZZZZZ	420802	3.57	1152926	4.54	539985	5.94	806352	7.20	508324	9.94	1041270	11.34
ZZZZZZ	441177	3.57	1211846	4.53	569427	5.94	865543	7.20	545967	9.94	1130513	11.34
ZZZZZZ	415639	3.57	1145308	4.54	535513	5.94	807219	7.20	511551	9.94	1059535	11.34
ZZZZZZ	445628	3.57	1215062	4.53	570542	5.94	864565	7.20	537364	9.93	1115438	11.34
ZZZZZZ	426907	3.57	1168249	4.54	551149	5.94	833319	7.20	524724	9.93	1087134	11.34
ZZZZZZ	460606	3.57	1267729	4.54	588086	5.94	884194	7.20	550695	9.94	1134996	11.34
OP31709-MB	381763	3.57	1067246	4.53	511851	5.94	778418	7.20	499156	9.94	1119209	11.34
OP31709-BS	412851	3.57	1118361	4.54	530925	5.94	819725	7.21	517294	9.94	1091057	11.34
OP31709-MS	464835	3.57	1268237	4.54	599541	5.94	927273	7.21	573519	9.94	1220286	11.34
OP31709-MSD	455329	3.57	1257664	4.54	605282	5.94	933016	7.21	583590	9.94	1247540	11.35
MC17505-1	381995	3.57	1036100	4.53	501431	5.94	778327	7.20	518046	9.93	1123249	11.34
MC17505-2	486554	3.57	1321219	4.53	624153	5.94	954794	7.20	606420	9.94	1341180	11.35
MC17505-3	404798	3.57	1105226	4.53	522612	5.94	795185	7.20	514859	9.94	1117485	11.34
MC17505-4	384578	3.57	1062345	4.53	511551	5.94	785147	7.20	502975	9.94	1102930	11.34
MC17505-7	414234	3.57	1166502	4.54	565818	5.94	862949	7.20	558936	9.94	1241846	11.34
MC17505-8	427254	3.57	1161119	4.54	569015	5.94	870623	7.20	580240	9.94	1298129	11.34
MC17505-9	392633	3.57	1093774	4.54	525448	5.94	803208	7.20	526861	9.94	1178340	11.34
ZZZZZZ	317157	3.57	881961	4.54	429864	5.94	677196	7.20	445933	9.93	970879	11.34
ZZZZZZ	311450	3.57	879697	4.54	413348	5.93	638794	7.20	404557	9.94	882083	11.34
ZZZZZZ	327321	3.57	914497	4.54	434680	5.93	663530	7.20	426139	9.94	926874	11.34
ZZZZZZ	319957	3.57	876779	4.53	417322	5.93	633482	7.20	406797	9.93	872877	11.34
ZZZZZZ	314434	3.57	872383	4.54	416876	5.93	636074	7.20	406241	9.94	879764	11.34
ZZZZZZ	314676	3.57	868759	4.54	417344	5.94	637184	7.20	399000	9.94	854090	11.34
ZZZZZZ	324551	3.57	898074	4.54	431982	5.93	656402	7.20	420115	9.94	912292	11.34
ZZZZZZ	328207	3.57	907923	4.53	430789	5.94	653226	7.20	412332	9.93	891056	11.34
ZZZZZZ	318040	3.57	885132	4.53	415575	5.93	635238	7.20	400192	9.93	867213	11.34
ZZZZZZ	319027	3.57	886022	4.53	418839	5.94	643028	7.20	406505	9.93	860370	11.34
ZZZZZZ	308260	3.57	867701	4.53	406058	5.93	618266	7.20	396145	9.93	843521	11.34
ZZZZZZ	307537	3.57	850039	4.54	399953	5.93	607409	7.20	391630	9.93	832796	11.34
ZZZZZZ	325794	3.57	901042	4.54	428650	5.94	650342	7.20	415259	9.94	899119	11.34
ZZZZZZ	320766	3.57	887544	4.53	417796	5.93	631845	7.20	397303	9.93	843137	11.34
ZZZZZZ	315313	3.57	891425	4.54	418105	5.93	632993	7.20	403145	9.94	866418	11.34
ZZZZZZ	319226	3.57	890890	4.53	418037	5.94	630360	7.20	378811	9.93	794015	11.34

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSI3025-CC3022	Injection Date:	01/18/13
Lab File ID:	I81257.D	Injection Time:	09:18
Instrument ID:	GCMSI	Method:	SW846 8270C BY SIM

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	306830	3.57	868025	4.53	412199	5.93	623100	7.20	401622	9.93	867825	11.34

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.2

7

Semivolatile Surrogate Recovery Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17505-1	F61150.D	40.0	30.0	71.0	70.0	56.0	37.0
MC17505-2	F61151.D	35.0	31.0	74.0	64.0	63.0	60.0
MC17505-3	F61152.D	28.0	22.0	65.0	60.0	55.0	39.0
MC17505-4	F61153.D	36.0	34.0	75.0	66.0	58.0	64.0
MC17505-7	F61149.D	37.0	30.0	69.0	61.0	63.0	64.0
MC17505-8	F61154.D	32.0	28.0	70.0	55.0	53.0	69.0
MC17505-9	F61155.D	32.0	29.0	66.0	64.0	65.0	57.0
OP31708-BS	F61146.D	42.0	30.0	84.0	69.0	65.0	79.0
OP31708-MB	F61145.D	37.0	26.0	72.0	62.0	59.0	81.0
OP31708-MS	F61147.D	38.0	27.0	80.0	73.0	66.0	49.0
OP31708-MSD	F61148.D	42.0	31.0	75.0	69.0	62.0	42.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17505-1	I81272.D	36.0	33.0	63.0	63.0	57.0	35.0
MC17505-2	I81273.D	33.0	33.0	69.0	62.0	63.0	56.0
MC17505-3	I81274.D	27.0	24.0	60.0	59.0	55.0	36.0
MC17505-4	I81275.D	34.0	35.0	67.0	63.0	57.0	57.0
MC17505-7	I81276.D	34.0	32.0	68.0	61.0	62.0	59.0
MC17505-8	I81277.D	30.0	31.0	64.0	53.0	53.0	65.0
MC17505-9	I81278.D	30.0	32.0	62.0	62.0	64.0	55.0
OP31709-BS	I81269.D	39.0	29.0	72.0	67.0	62.0	69.0
OP31709-MB	I81268.D	34.0	28.0	59.0	60.0	59.0	72.0
OP31709-MS	I81270.D	35.0	27.0	74.0	71.0	64.0	44.0
OP31709-MSD	I81271.D	39.0	30.0	69.0	67.0	58.0	38.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-MB	YZ77925.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-6, MC17505-7, MC17505-8, MC17505-9, MC17505-11

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethaue	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	111%	36-173%
460-00-4	Bromofluorobenzene (S)	120%	36-173%

Blank Spike Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-BS	YZ77926.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-6, MC17505-7, MC17505-8, MC17505-9, MC17505-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.081	114	60-140
106-93-4	1,2-Dibromoethane	0.071	0.066	93	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	114%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31715-MS2	YZ77930.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
OP31715-MSD2	YZ77931.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020
MC17505-7	YZ77932.D	1	01/19/13	CZ	01/17/13	OP31715	GYZ7020

The QC reported here applies to the following samples: Method: SW846 8011

MC17505-1, MC17505-2, MC17505-3, MC17505-4, MC17505-6, MC17505-7, MC17505-8, MC17505-9, MC17505-11

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0692	0.079	114	0.069	98	14	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0692	0.060	87	0.055	78	9	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17505-7	Limits
460-00-4	Bromofluorobenzene (S)	122%	114%	110%	36-173%
460-00-4	Bromofluorobenzene (S)	124%	112%	111%	36-173%

* = Outside of Control Limits.

8.3.1

Volatile Surrogate Recovery Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17505-1	YZ77943.D	120.0	118.0
MC17505-2	YZ77944.D	117.0	110.0
MC17505-3	YZ77945.D	134.0	121.0
MC17505-4	YZ77947.D	128.0	122.0
MC17505-6	YZ77948.D	128.0	122.0
MC17505-7	YZ77932.D	110.0	111.0
MC17505-8	YZ77949.D	109.0	105.0
MC17505-9	YZ77950.D	116.0	111.0
MC17505-11	YZ77951.D	116.0	112.0
OP31715-BS	YZ77926.D	114.0	121.0
OP31715-MB	YZ77925.D	111.0	120.0
OP31715-MS2	YZ77930.D	122.0	124.0
OP31715-MSD2	YZ77931.D	114.0	112.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

8.4.1

8

GC Surrogate Retention Time Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7020-CC7019	Injection Date:	01/19/13
Lab File ID:	YZ77924A.D	Injection Time:	00:23
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31715-MB	YZ77925.D	01/19/13	00:48	3.48	3.76
OP31715-BS	YZ77926.D	01/19/13	01:13	3.48	3.76
OP31715-MS1	YZ77927.D	01/19/13	01:39	3.48	3.76
OP31715-MSD1	YZ77928.D	01/19/13	02:04	3.48	3.76
MC17451-5	YZ77929.D	01/19/13	02:29	3.48	3.76
OP31715-MS2	YZ77930.D	01/19/13	02:54	3.48	3.76
OP31715-MSD2	YZ77931.D	01/19/13	03:19	3.48	3.76
MC17505-7	YZ77932.D	01/19/13	03:45	3.48	3.76
ZZZZZZ	YZ77933.D	01/19/13	04:10	3.48	3.76
ZZZZZZ	YZ77934.D	01/19/13	04:35	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxaua, IL

Check Std:	GYZ7020-CC7019	Injection Date:	01/19/13
Lab File ID:	YZ77935.D	Injection Time:	05:00
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	YZ77936.D	01/19/13	05:25	3.48	3.76
ZZZZZZ	YZ77937.D	01/19/13	05:51	3.48	3.76
ZZZZZZ	YZ77938.D	01/19/13	06:16	3.48	3.76
ZZZZZZ	YZ77939.D	01/19/13	06:41	3.48	3.76
ZZZZZZ	YZ77940.D	01/19/13	07:06	3.48	3.76
ZZZZZZ	YZ77941.D	01/19/13	07:32	3.48	3.76
ZZZZZZ	YZ77942.D	01/19/13	07:57	3.48	3.76
MC17505-1	YZ77943.D	01/19/13	08:22	3.48	3.76
MC17505-2	YZ77944.D	01/19/13	08:48	3.48	3.76
MC17505-3	YZ77945.D	01/19/13	09:13	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17505
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7020-CC7019	Injection Date:	01/19/13
Lab File ID:	YZ77946.D	Injection Time:	09:38
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC17505-4	YZ77947.D	01/19/13	10:03	3.48	3.76
MC17505-6	YZ77948.D	01/19/13	10:28	3.48	3.76
MC17505-8	YZ77949.D	01/19/13	10:54	3.48	3.76
MC17505-9	YZ77950.D	01/19/13	11:19	3.48	3.76
MC17505-11	YZ77951.D	01/19/13	11:45	3.48	3.76
GYZ7020-ECC7019	YZ77952.D	01/19/13	12:10	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.3

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17567

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/19/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW6A-ROX-011413	TB-ROX-011413-HCL
TB-ROX-011413-ST	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. Additionally, the continuing calibration verification for acrolein exceeded 50 percent difference (%D). These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated the cooler was received by the laboratory at a temperature of 1.4ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2187-BS/BSD	VOCs	Acetone	**147**/120	20	70-130/25
MSK2187-BS/BSD	VOCs	Acrolein	**69**/74	7	70-130/25

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2187-BS/BSD	VOCs	Acrylonitrile	**137/131**	4	70-130/25
MSK2187-BS/BSD	VOCs	Chloroethane	**132**/124	7	70-130/25
MSK2187-BS/BSD	VOCs	2-Chloroethyl vinyl ether	**35/34**	2	70-130/25
MSK2187-BS/BSD	VOCs	Chloromethane	**143/134**	6	70-130/25
MSK2187-BS/BSD	VOCs	1,1-Dichloroethene	**131**/125	5	70-130/25
OP31718-BS	SVOCs	Benzoic acid	**27**	NA	30-130
OP31718-BS	SVOCs	Phenol	**23**	NA	30-130
OP31718-BS	SVOCs	Aniline	**29**	NA	40-140
OP31718-BS	SVOCs	Dimethyl phthalate	**13**	NA	40-140
OP31718-BS	SVOCs	Hexachlorocyclopentadiene	**27**	NA	40-140
OP31718-BS	SVOCs	n-Nitrosodimethylamine	**34**	NA	40-140
OP31718-BS	SVOCs	Pyridine	**22**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LCSD MSK2187-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-011413	VOCs	Acrolein	**UJ**
MW6A-ROX-011413	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW6A-ROX-011413	SVOCs	Benzoic acid	**UJ**
MW6A-ROX-011413	SVOCs	Phenol	**UJ**
MW6A-ROX-011413	SVOCs	Aniline	**UJ**
MW6A-ROX-011413	SVOCs	Dimethyl phthalate	**UJ**
MW6A-ROX-011413	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6A-ROX-011413	SVOCs	n-Nitrosodimethylamine	**UJ**
MW6A-ROX-011413	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

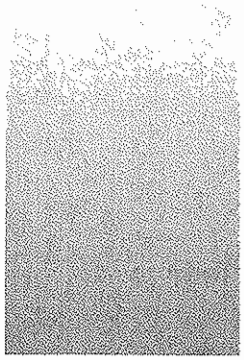
12.0 Additional Qualifications

Were additional qualifications applied?

Although the continuing calibration verification recovery for acrolein exceeded 50 percent difference (%D), acrolein in associated samples was previously qualified in Section 5.0 of this review due to LCS data. No further qualification of acrolein was required.

New England ACCUTEST LABORATORIES

02/01/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17567

Sampling Date: 01/14/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **57**

Reviewed on 4/19/2013

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **7**
4.1: MC17567-1: MW6A-ROX-011413 8
4.2: MC17567-2: TB-ROX-011413-HCL 15
4.3: MC17567-3: TB-ROX-011413-ST 18
Section 5: Misc. Forms **19**
5.1: Chain of Custody 20
5.2: Sample Tracking Chronicle 22
5.3: Internal Chain of Custody 23
Section 6: GC/MS Volatiles - QC Data Summaries **24**
6.1: Method Blank Summary 25
6.2: Blank Spike/Blank Spike Duplicate Summary 28
6.3: Matrix Spike/Matrix Spike Duplicate Summary 31
6.4: Internal Standard Area Summaries 34
6.5: Surrogate Recovery Summaries 35
Section 7: GC/MS Semi-volatiles - QC Data Summaries **36**
7.1: Method Blank Summary 37
7.2: Blank Spike Summary 40
7.3: Matrix Spike/Matrix Spike Duplicate Summary 43
7.4: Internal Standard Area Summaries 46
7.5: Surrogate Recovery Summaries 50
Section 8: GC Volatiles - QC Data Summaries **52**
8.1: Method Blank Summary 53
8.2: Blank Spike Summary 54
8.3: Matrix Spike/Matrix Spike Duplicate Summary 55
8.4: Surrogate Recovery Summaries 56
8.5: GC Surrogate Retention Time Summaries 57

Sample Summary

Shell Oil

Job No: MC17567

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17567-1	01/14/13	15:05	BLBH	01/16/13	AQ	Ground Water	MW6A-ROX-011413
MC17567-2	01/14/13	00:00	BLBH	01/16/13	AQ	Trip Blank Water	TB-ROX-011413-HCL
MC17567-3	01/14/13	00:00	BLBH	01/16/13	AQ	Trip Blank Water	TB-ROX-011413-ST

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC17567
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	Report Date	1/30/2013 3:58:10 PM

1 Sample(s), 2 Trip Blank(s) were collected on 01/14/2013 and were received at Accutest on 01/16/2013 properly preserved, at 1.4 Deg. C and intact. These Samples received an Accutest job number of MC17567. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performanee criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ Batch ID: MSK2187

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17505-7MS, MC17505-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1-Dichloroethene, 2-Chloroethyl vinyl ether, Acetoue, Aerolein, Acrylonitrile, Chloroethane, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplicate Recovery(s) for 2-Chloroethyl vinyl ether, Acrylonitrile, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Calibration check standard MSK2187-CC2177 for acrolein exceeds 50% Difference (response bias high). Associated samples are non-detect for this componnd.

Extractables by GCMS By Method SW846 8270C

Matrix AQ Batch ID: OP31718

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17600-1MS, MC17600-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Aniline, Benzoic Acid, Dimethyl phthalate, Hexachlorocyclopentadiene, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2,4-Dimethylphenol, 2-Methylphenol, 3&4-Methylphenol, Aniline, Benzoic Acid, Butyl benzyl phthalate, Diethyl phthalate, Dimethyl phthalate, Hexachlorocyclopentadiene, Hexachloroethane, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Benzoic Acid, Butyl benzyl phthalate, Diethyl phthalate, Hexachlorocyclopentadiene, Aniline, Dimethyl phthalate, Phenol, Pyridine are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- RPD(s) for MSD for 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2-Chloronaphthalene, 2-Chlorophenol, 2-Methylphenol, 2-Nitrophenol, 3&4-Methylphenol, 4-Chloro-3-methyl phenol, 4-Nitroaniline, Aniline, Benzyl Alcohol, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl)ether, bis(2-Chloroisopropyl)ether, Dimethyl phthalate, Hexachloroethane, Isophorone, N-Nitroso-di-n-propylamine, n-Nitrosodimethylamine, Nitrobenzene, Phenol, Pyridine are outside control limits for sample OP31718-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Calibration standard MSF2858-ICC2858, MSF2858-ICV2858, MSF2871-CC2858 not associated with this job.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31719

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17556-16MS, MC17556-16MSD were used as the QC samples indicated.
- RPD(s) for MSD for 1-Methylnaphthalene, 2-Methylnaphthalene are outside control limits for sample OP31719-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31739

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17700-2MS, MC17700-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17567).

Summary of Hits

Job Number: MC17567
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/14/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17567-1	MW6A-ROX-011413					
Benzene		27.6	0.50	0.24	ug/l	SW846 8260B
bis(2-Ethylhexyl)phthalate		0.54 J	2.0	0.47	ng/l	SW846 8270C
Benzo(g,h,i)perylene		0.073 J	0.10	0.038	ng/l	SW846 8270C BY SIM
Dibenzo(a,h)anthracene		0.066 J	0.10	0.043	ug/l	SW846 8270C BY SIM
Indeno(1,2,3-cd)pyrene		0.072 J	0.10	0.047	ug/l	SW846 8270C BY SIM
MC17567-2	TB-ROX-011413-HCL					
No hits reported in this sample.						
MC17567-3	TB-ROX-011413-ST					
No hits reported in this sample.						

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4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW6A-ROX-011413		
Lab Sample ID:	MC17567-1	Date Sampled:	01/14/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66626.D	1	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	27.6	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroetbane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW6A-ROX-011413		
Lab Sample ID:	MC17567-1	Date Sampled:	01/14/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanoue (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene hromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ng/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Tolnene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichloroflnoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ng/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ng/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW6A-ROX-011413		
Lab Sample ID:	MC17567-1	Date Sampled:	01/14/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile			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:	MW6A-ROX-011413		
Lab Sample ID:	MC17567-1	Date Sampled:	01/14/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61175.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	UJ
95-57-8	2-Chlorophenol	ND	5.1	0.72	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.1	1.0	ug/l	UJ
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.65	ng/l	UJ
101-55-3	4-Bromopheuyl phenyl ether	ND	5.1	0.74	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.67	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.98	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.82	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.78	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.91	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	1.3	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:	MW6A-ROX-011413		
Lab Sample ID:	MC17567-1	Date Sampled:	01/14/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.51	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.21	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	0.54	2.0	0.47	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.1	0.54	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.1	1.6	ug/l	
78-59-1	Isophorone	ND	5.1	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.88	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.98	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	1.0	ng/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.51	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		15-110%
4165-62-2	Phenol-d5	22%		15-110%
118-79-6	2,4,6-Tribromophenol	68%		15-110%
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Flnorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	51%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW6A-ROX-011413		
Lab Sample ID:	MC17567-1	Date Sampled:	01/14/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11804.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.073	0.10	0.038	ug/l	J
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.074	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.066	0.10	0.043	ug/l	J
206-44-0	Fluoranthene	ND	0.10	0.033	ng/l	
86-73-7	Fluorene	ND	0.10	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.072	0.10	0.047	ug/l	J
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.053	ug/l	
85-01-8	Phenanthrene	ND	0.051	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	54%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	55%		30-130%

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:	MW6A-ROX-011413		
Lab Sample ID:	MC17567-1	Date Sampled:	01/14/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Ceutral Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ77999.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	35.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ng/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	135%		36-173%
460-00-4	Bromofluorobenzene (S)	112%		36-173%

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

Report of Analysis

Client Sample ID:	TB-ROX-011413-HCL		
Lab Sample ID:	MC17567-2	Date Sampled:	01/14/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Ceutral Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66616.D	1	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromocbloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-011413-HCL		
Lab Sample ID:	MC17567-2	Date Sampled:	01/14/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ng/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ng/l	
75-69-4	Tricblorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-ROX-011413-HCL		
Lab Sample ID:	MC17567-2	Date Sampled:	01/14/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dihromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorohenzene	108%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

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

Report of Analysis

Client Sample ID:	TB-ROX-011413-ST		
Lab Sample ID:	MC17567-3	Date Sampled:	01/14/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78000.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	36.0 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	136%		36-173%
460-00-4	Bromofluorobenzene (S)	115%		36-173%

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

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

URS

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES | ☐ MOTIVA RETAIL | ☐ SHELL RETAIL
☐ MOTIVA SOMCM | ☐ CONSULTANT | ☐ TUBES
☐ SHELL PIPELINE | ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 5 8 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 1/14/13
PAGE 1 of 1

COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 | FAX: 314-429-0462
SITE ADDRESS: 900 South Central Ave, ROXANA | STATE: IL
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21562860.03001
SAMPLER NAME(S): B. Lehan, B. Hailemariam
LAB USE ONLY: MC17567

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
Please include "J" values on Reports
Please provide sample receipt upon login
☑ SHELL CONTRACT RATE APPLIES
☐ STATE OF TEXAS CONTRACT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDER LEDD DATA

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	FIELD NOTES: Container PID Readings or Laboratory Notes
-1	MW6A-ROX-011413	1/14/13	1505	water	2			2	2	6	X	X	X	X	0	
-2	TB-ROX-011413-HCl		00:00		2					2	X					
-3	TB-ROX-011413-ST		00:00						2	2		X				
																2B4,16A

TEMPERATURE ON RECEIPT C°:

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	FED EX	1/14/13	1800
FEDX	[signature]	1-16-13	1000

08308 Revision 1.4

MC17567: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17567 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/16/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SO CENTRAL No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

5.1

5

MC17567: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17567

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17567-1 Collected: 14-JAN-13 15:05 By: BLBH Received: 16-JAN-13 By: MW6A-ROX-011413						
MC17567-1	SW846 8270C	18-JAN-13 11:37	KR	17-JAN-13	MEW	AB8270SL+
MC17567-1	SW846 8270C BY SIM	18-JAN-13 16:05	NS	17-JAN-13	MEW	B8270SIMSL
MC17567-1	SW846 8260B	21-JAN-13 16:09	GK			V8260SL+
MC17567-1	SW846 8011	22-JAN-13 05:21	CZ	19-JAN-13	BJ	V8011SL
MC17567-2 Collected: 14-JAN-13 00:00 By: BLBH Received: 16-JAN-13 By: TB-ROX-011413-HCL						
MC17567-2	SW846 8260B	21-JAN-13 11:36	GK			V8260SL+
MC17567-3 Collected: 14-JAN-13 00:00 By: BLBH Received: 16-JAN-13 By: TB-ROX-011413-ST						
MC17567-3	SW846 8011	22-JAN-13 05:46	CZ	19-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/16/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17567-1.1	Walk In Ref #22	Michael Rolo	01/17/13 07:22	Retrieve from Storage
MC17567-1.1	Michael Rolo		01/17/13 15:20	Depleted
MC17567-1.2	Walk In Ref #22	Michael Rolo	01/18/13 07:11	Retrieve from Storage
MC17567-1.2	Michael Rolo	Walk In Ref #22	01/18/13 09:17	Return to Storage
MC17567-1.2	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17567-1.2	Chris Cataldo	Walk In Ref #22	01/19/13 19:09	Return to Storage
MC17567-1.3	VOC Ref #2	Gary Krasinski	01/21/13 11:10	Retrieve from Storage
MC17567-1.3	Gary Krasinski	VOC Ref #2	01/22/13 09:42	Return to Storage
MC17567-1.6	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17567-1.6	Bijan Jafari		01/21/13 13:55	Depleted
MC17567-2.2	VOC Ref #2	Gary Krasiuski	01/21/13 10:06	Retrieve from Storage
MC17567-2.2	Gary Krasinski	VOC Ref #2	01/22/13 09:42	Return to Storage
MC17567-3.2	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17567-3.2	Bijan Jafari		01/21/13 13:55	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ng/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromofluorobenzene	114%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	73.3	147* a	59.8	120	20	70-130/25
107-02-8	Acrolein	250	172	69* a	184	74	7	70-130/25
107-13-1	Acrylonitrile	50	68.7	137* a	65.7	131* a	4	70-130/25
71-43-2	Benzene	50	57.5	115	55.6	111	3	70-130/25
108-86-1	Bromobenzene	50	54.9	110	55.3	111	1	70-130/25
74-97-5	Bromochloromethane	50	53.4	107	52.8	106	1	70-130/25
75-27-4	Bromodichloromethane	50	54.6	109	53.1	106	3	70-130/25
75-25-2	Bromoform	50	44.4	89	43.2	86	3	70-130/25
74-83-9	Bromomethane	50	56.9	114	53.6	107	6	70-130/25
78-93-3	2-Butanone (MEK)	50	59.9	120	56.4	113	6	70-130/25
104-51-8	n-Butylbenzene	50	65.1	130	63.9	128	2	70-130/25
135-98-8	sec-Butylbenzene	50	59.3	119	58.4	117	2	70-130/25
98-06-6	tert-Butylbenzene	50	58.9	118	58.3	117	1	70-130/25
75-15-0	Carbon disulfide	50	63.8	128	60.4	121	5	70-130/25
56-23-5	Carbon tetrachloride	50	51.0	102	48.8	98	4	70-130/25
108-90-7	Chlorobenzene	50	46.1	92	46.1	92	0	70-130/25
75-00-3	Chloroethane	50	66.2	132* a	61.8	124	7	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	17.4	35* a	17.1	34* a	2	70-130/25
67-66-3	Chloroform	50	56.1	112	53.6	107	5	70-130/25
74-87-3	Chloromethane	50	71.4	143* a	67.1	134* a	6	70-130/25
95-49-8	o-Chlorotoluene	50	60.8	122	60.3	121	1	70-130/25
106-43-4	p-Chlorotoluene	50	61.1	122	60.2	120	1	70-130/25
124-48-1	Dibromochloromethane	50	49.9	100	49.7	99	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	52.4	105	51.8	104	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	51.4	103	51.4	103	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	51.9	104	51.3	103	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	60.8	122	56.7	113	7	70-130/25
75-34-3	1,1-Dichloroethane	50	61.4	123	59.1	118	4	70-130/25
107-06-2	1,2-Dichloroethane	50	52.7	105	51.5	103	2	70-130/25
75-35-4	1,1-Dichloroethene	50	65.7	131* a	62.5	125	5	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	56.8	114	55.1	110	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	60.0	120	57.1	114	5	70-130/25
78-87-5	1,2-Dichloropropane	50	60.8	122	58.7	117	4	70-130/25
142-28-9	1,3-Dichloropropane	50	53.7	107	52.3	105	3	70-130/25
594-20-7	2,2-Dichloropropane	50	54.9	110	52.8	106	4	70-130/25
563-58-6	1,1-Dichloropropene	50	62.1	124	60.7	121	2	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	58.7	117	57.1	114	3	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	62.7	125	60.7	121	3	70-130/25
123-91-1	1,4-Dioxane	250	316	126	270	108	16	70-130/25
97-63-2	Ethyl methacrylate	50	51.8	104	51.7	103	0	77-137/25
100-41-4	Ethylbenzene	50	57.8	116	57.1	114	1	70-130/25
87-68-3	Hexachlorobutadiene	50	50.3	101	49.7	99	1	70-130/25
591-78-6	2-Hexanone	50	59.4	119	54.5	109	9	70-130/25
98-82-8	Isopropylbenzene	50	58.6	117	57.9	116	1	70-130/25
99-87-6	p-Isopropyltoluene	50	60.1	120	59.2	118	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	59.9	120	58.4	117	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	54.8	110	53.2	106	3	70-130/25
74-95-3	Methylene bromide	50	54.1	108	52.0	104	4	70-130/25
75-09-2	Methylene chloride	50	60.2	120	58.2	116	3	70-130/25
91-20-3	Naphthalene	50	48.9	98	48.3	97	1	70-130/25
103-65-1	n-Propylbenzene	50	63.0	126	61.3	123	3	70-130/25
100-42-5	Styreue	50	52.4	105	51.4	103	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	49.2	98	49.0	98	0	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	57.4	115	57.8	116	1	70-130/25
127-18-4	Tetrachloroethene	50	49.7	99	49.8	100	0	70-130/25
108-88-3	Toluene	50	61.1	122	59.3	119	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	50.3	101	49.6	99	1	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.1	104	52.1	104	0	70-130/25
71-55-6	1,1,1-Trichloroethane	50	54.6	109	51.9	104	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	55.2	110	53.8	108	3	70-130/25
79-01-6	Trichloroethene	50	55.0	110	52.8	106	4	70-130/25
75-69-4	Trichlorofluoromethane	50	55.7	111	52.8	106	5	70-130/25
96-18-4	1,2,3-Trichloropropane	50	60.5	121	59.1	118	2	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.5	111	54.9	110	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	55.3	111	54.6	109	1	70-130/25
108-05-4	Vinyl Acetate	50	60.9	122	57.7	115	5	70-130/25
75-01-4	Vinyl chloride	50	60.3	121	56.0	112	7	70-130/25
	m,p-Xylene	100	116	116	114	114	2	70-130/25
95-47-6	o-Xylene	50	54.1	108	54.1	108	0	70-130/25
1330-20-7	Xylene (total)	150	170	113	168	112	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	102%	70-130%
2037-26-5	Toluene-D8	112%	111%	70-130%
460-00-4	4-Bromofluorobenzene	115%	116%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	62.6	125	58.5	117	7	70-130/30
107-02-8	Acrolein	ND		250	1130	452* [a]	1150	460* [a]	2	70-130/30
107-13-1	Acrylonitrile	ND		50	56.4	113	57.4	115	2	70-130/30
71-43-2	Benzene	ND		50	53.2	106	52.1	104	2	70-130/30
108-86-1	Bromobenzene	ND		50	51.9	104	51.6	103	1	70-130/30
74-97-5	Bromochloromethane	ND		50	49.3	99	50.2	100	2	70-130/30
75-27-4	Bromodichloromethane	ND		50	51.3	103	50.1	100	2	70-130/30
75-25-2	Bromoform	ND		50	42.1	84	40.8	82	3	70-130/30
74-83-9	Bromomethane	ND		50	47.9	96	48.4	97	1	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	47.9	96	52.4	105	9	70-130/30
104-51-8	n-Butylbenzene	ND		50	59.8	120	58.7	117	2	70-130/30
135-98-8	sec-Butylbenzene	ND		50	55.1	110	54.2	108	2	70-130/30
98-06-6	tert-Butylbenzene	ND		50	54.3	109	53.6	107	1	70-130/30
75-15-0	Carbon disulfide	ND		50	51.6	103	51.6	103	0	70-130/30
56-23-5	Carbon tetrachloride	ND		50	48.7	97	46.8	94	4	70-130/30
108-90-7	Chlorobenzene	ND		50	44.9	90	44.5	89	1	70-130/30
75-00-3	Chloroethane	ND		50	55.7	111	56.5	113	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		50	51.9	104	51.5	103	1	70-130/30
74-87-3	Chloromethane	ND		50	53.3	107	53.2	106	0	70-130/30
95-49-8	o-Chlorotoluene	ND		50	55.7	111	55.1	110	1	70-130/30
106-43-4	p-Chlorotoluene	ND		50	56.8	114	55.6	111	2	70-130/30
124-48-1	Dibromochloromethane	ND		50	46.6	93	47.1	94	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	48.4	97	47.9	96	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	49.3	99	48.8	98	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	50.0	100	49.8	100	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	51.5	103	49.8	100	3	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	55.3	111	54.8	110	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	49.6	99	49.0	98	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	57.2	114	57.0	114	0	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	51.5	103	52.0	104	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	52.5	105	52.2	104	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	55.2	110	55.2	110	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	50.4	101	50.2	100	0	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	51.6	103	51.1	102	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	57.2	114	56.1	112	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	52.0	104	52.0	104	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	53.6	107	54.0	108	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	214	86	275	110	25	70-130/30
97-63-2	Ethyl methacrylate	ND		50	47.2	94	47.5	95	1	72-139/30
100-41-4	Ethylbenzene	ND		50	54.8	110	52.9	106	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	50.0	100	49.5	99	1	70-130/30
591-78-6	2-Hexanone	ND		50	47.1	94	50.0	100	6	70-130/30
98-82-8	Isopropylbenzene	ND		50	54.0	108	53.0	106	2	70-130/30
99-87-6	p-Isopropyltolnene	ND		50	56.4	113	54.9	110	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.1	102	52.6	105	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	48.7	97	49.3	99	1	70-130/30
74-95-3	Methylene bromide	ND		50	50.4	101	50.0	100	1	70-130/30
75-09-2	Methylene chloride	ND		50	53.2	106	54.1	108	2	70-130/30
91-20-3	Naphthalene	ND		50	44.5	89	45.9	92	3	70-130/30
103-65-1	n-Propylbenzene	ND		50	57.9	116	57.1	114	1	70-130/30
100-42-5	Styrene	ND		50	47.6	95	46.5	93	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	47.7	95	47.3	95	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	53.6	107	54.3	109	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	48.3	97	47.7	95	1	70-130/30
108-88-3	Toluene	ND		50	56.8	114	55.7	111	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	46.1	92	47.3	95	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	47.6	95	49.3	99	4	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	51.0	102	49.6	99	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	51.3	103	52.1	104	2	70-130/30
79-01-6	Trichloroethene	ND		50	51.2	102	50.0	100	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	52.9	106	51.0	102	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	52.0	104	52.5	105	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	50.6	101	50.9	102	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	51.2	102	50.5	101	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	50.7	101	52.8	106	4	70-130/30
75-01-4	Vinyl chloride	ND		50	47.9	96	47.7	95	0	70-130/30
	m,p-Xylene	ND		100	111	111	108	108	3	70-130/30
95-47-6	o-Xylene	ND		50	52.7	105	51.1	102	3	70-130/30
1330-20-7	Xylene (total)	ND		150	164	109	159	106	3	70-130/30

* = Outside of Control Limits.

6.3.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17567-1, MC17567-2

CAS No.	Surrogate Recoveries	MS	MSD	MC17505-7	Limits
1868-53-7	Dibromofluoromethane	104%	105%	116%	70-130%
2037-26-5	Toluene-D8	109%	111%	109%	70-130%
460-00-4	4-Bromofluorobenzene	115%	114%	109%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2187-CC2177	Injection Date:	01/21/13
Lab File ID:	K66609.D	Injection Time:	08:26
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	138552	8.81	213045	9.66	100184	12.92	109189	15.48	23867	6.40
Upper Limit [a]	277104	9.31	426090	10.16	200368	13.42	218378	15.98	47734	6.90
Lower Limit [b]	69276	8.31	106523	9.16	50092	12.42	54595	14.98	11934	5.90
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2187-BS	129577	8.81	207635	9.66	101158	12.92	105009	15.48	25696	6.40
MSK2187-BSD	135046	8.82	215591	9.66	104126	12.92	107328	15.48	26749	6.41
MSK2187-MB	127508	8.81	203836	9.66	92799	12.92	95831	15.48	22013	6.40
ZZZZZZ	123427	8.81	195018	9.66	85662	12.92	93106	15.48	15660	6.39
ZZZZZZ	119529	8.82	192962	9.66	88041	12.92	90200	15.48	17867	6.40
MC17567-2	119353	8.81	189841	9.66	83127	12.92	89914	15.48	20395	6.40
ZZZZZZ	118545	8.82	190936	9.66	85279	12.92	92391	15.48	20579	6.40
MC17505-7	118633	8.82	191605	9.67	86501	12.92	91892	15.48	20436	6.41
ZZZZZZ	114272	8.82	186251	9.66	82264	12.92	87542	15.48	18074	6.40
MC17505-7MS	126249	8.82	200989	9.66	96366	12.92	103044	15.48	20213	6.41
MC17505-7MSD	127215	8.82	202101	9.66	97438	12.92	102908	15.48	21565	6.40
ZZZZZZ	131193	8.81	200818	9.66	93322	12.92	98311	15.48	15617	6.40
ZZZZZZ	133103	8.82	208549	9.66	94192	12.92	97177	15.48	20321	6.40
MC17567-1	122880	8.81	199289	9.66	88034	12.92	92589	15.48	22466	6.40
ZZZZZZ	119068	8.82	192468	9.66	86617	12.92	91114	15.48	20912	6.40
ZZZZZZ	113983	8.82	187028	9.66	84310	12.92	89575	15.48	17333	6.40
ZZZZZZ	111425	8.82	177914	9.67	82076	12.92	86311	15.48	18445	6.40
ZZZZZZ	105044	8.82	173220	9.66	79449	12.92	83777	15.48	16007	6.40
ZZZZZZ	106168	8.82	172087	9.66	79479	12.92	85545	15.48	16174	6.40
ZZZZZZ	102502	8.82	169711	9.67	77903	12.92	82357	15.48	16554	6.40
ZZZZZZ	98649	8.81	164923	9.66	77009	12.92	81754	15.48	15547	6.40
ZZZZZZ	100543	8.82	168022	9.67	79028	12.92	86422	15.48	15676	6.40
ZZZZZZ	103439	8.81	170761	9.66	79240	12.92	84782	15.48	16998	6.40

IS 1 = Pentafluorobenzeue
IS 2 = 1,4-Difluorohenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check staudard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MCI7567-1	K66626.D	113.0	105.0	111.0
MC17567-2	K66616.D	113.0	109.0	108.0
MC17505-7MS	K66621.D	104.0	109.0	115.0
MC17505-7MSD	K66622.D	105.0	111.0	114.0
MSK2187-BS	K66610.D	102.0	112.0	115.0
MSK2187-BSD	K66611.D	102.0	111.0	116.0
MSK2187-MB	K66613.D	112.0	110.0	114.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.5.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-MB	F61170.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17567-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-MB	F61170.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17567-1

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	34%	15-110%
4165-62-2	Phenol-d5	22%	15-110%
118-79-6	2,4,6-Tribromophenol	64%	15-110%
4165-60-0	Nitrobenzene-d5	54%	30-130%
321-60-8	2-Fluorobiphenyl	56%	30-130%
1718-51-0	Terphenyl-d14	70%	30-130%

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

Method Blank Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31719-MB	U11795.D	1	01/18/13	NS	01/17/13	OP31719	MSU614

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17567-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluuranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	56%	30-130%
321-60-8	2-Fluorobiphenyl	60%	30-130%
1718-51-0	Terphenyl-d14	68%	30-130%

Blank Spike Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-BS	F61171.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17567-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	27.0	27* a	30-130
95-57-8	2-Chlorophenol	100	50.3	50	30-130
59-50-7	4-Chloro-3-methyl phenol	100	60.1	60	30-130
120-83-2	2,4-Dichlorophenol	100	59.4	59	30-130
105-67-9	2,4-Dimethylphenol	100	40.9	41	30-130
51-28-5	2,4-Dinitrophenol	100	65.1	65	30-130
534-52-1	4,6-Dinitro-o-cresol	100	76.0	76	30-130
95-48-7	2-Methylphenol	100	44.7	45	30-130
	3&4-Methylphenol	200	84.1	42	30-130
88-75-5	2-Nitrophenol	100	60.2	60	30-130
100-02-7	4-Nitrophenol	100	33.4	33	30-130
87-86-5	Pentachlorophenol	100	77.0	77	30-130
108-95-2	Phenol	100	23.4	23* a	30-130
95-95-4	2,4,5-Trichlorophenol	100	68.9	69	30-130
88-06-2	2,4,6-Trichlorophenol	100	69.2	69	30-130
62-53-3	Aniline	50	14.3	29* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	34.6	69	40-140
85-68-7	Butyl benzyl phthalate	50	22.7	45	40-140
100-51-6	Benzyl Alcohol	50	25.0	50	40-140
91-58-7	2-Chloronaphthalene	50	30.4	61	40-140
106-47-8	4-Chloroaniline	50	23.5	47	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	24.7	49	40-140
111-44-4	bis(2-Chloroethyl)ether	50	25.0	50	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	29.1	58	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	34.0	68	40-140
122-66-7	1,2-Diphenylhydrazine	50	31.8	64	40-140
121-14-2	2,4-Dinitrotolnene	50	35.7	71	40-140
606-20-2	2,6-Dinitrotoluene	50	33.0	66	40-140
91-94-1	3,3'-Dichlorobeuzidine	50	38.9	78	40-140
132-64-9	Dibenzofuran	50	30.8	62	40-140
84-74-2	Di-n-butyl phthalate	50	28.8	58	40-140
117-84-0	Di-n-octyl phthalate	50	37.3	75	40-140
84-66-2	Diethyl phthalate	50	21.2	42	40-140
131-11-3	Dimethyl phthalate	50	6.3	13* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	35.8	72	40-140
118-74-1	Hexachlorobenzene	50	35.9	72	40-140

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-BS	F61171.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17567-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	13.7	27* a	40-140
67-72-1	Hexachloroethane	50	22.4	45	40-140
78-59-1	Isophorone	50	29.4	59	40-140
88-74-4	2-Nitroaniline	50	32.3	65	40-140
99-09-2	3-Nitroaniline	50	29.4	59	40-140
100-01-6	4-Nitroaniline	50	32.7	65	40-140
98-95-3	Nitrobenzene	50	26.3	53	40-140
62-75-9	n-Nitrosodimethylamine	50	17.1	34* a	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	28.3	57	40-140
86-30-6	N-Nitrosodiphenylamine	50	33.3	67	40-140
110-86-1	Pyridine	50	11.1	22* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	33%	15-110%
4165-62-2	Phenol-d5	23%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	15-110%
4165-60-0	Nitrobenzene-d5	53%	30-130%
321-60-8	2-Fluorobiphenyl	59%	30-130%
1718-51-0	Terphenyl-d14	73%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31719-BS	U11796.D	1	01/18/13	NS	01/17/13	OP31719	MSU614

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17567-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	33.2	66	40-140
208-96-8	Acenaphthylene	50	24.4	49	40-140
120-12-7	Anthracene	50	35.0	70	40-140
56-55-3	Benzo(a)anthracene	50	37.6	75	40-140
50-32-8	Benzo(a)pyrene	50	34.5	69	40-140
205-99-2	Benzo(b)fluoranthene	50	36.1	72	40-140
191-24-2	Benzo(g,h,i)perylene	50	36.6	73	40-140
207-08-9	Benzo(k)fluoranthene	50	37.3	75	40-140
218-01-9	Chrysene	50	37.0	74	40-140
53-70-3	Dibenzo(a,h)anthracene	50	36.5	73	40-140
206-44-0	Fluoranthene	50	36.2	72	40-140
86-73-7	Fluorene	50	34.2	68	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.6	71	40-140
90-12-0	1-Methylnaphthalene	50	31.7	63	40-140
91-57-6	2-Methylnaphthalene	50	29.6	59	40-140
85-01-8	Phenanthrene	50	36.3	73	40-140
129-00-0	Pyrene	50	37.2	74	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	54%	30-130%
321-60-8	2-Fluorobiphenyl	62%	30-130%
1718-51-0	Terphenyl-d14	74%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-MS	F61172.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
OP31718-MSD	F61173.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
MC17600-1	F61174.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17567-1

7.3.1

7

CAS No.	Compound	MC17600-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	27.3	27* [a]	31.9	29* [a]	16	30-130/20
95-57-8	2-Chlorophenol	ND		100	39.3	39	61.0	56	43* [b]	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	42.7	43	63.1	57	39* [b]	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	48.6	49	67.0	61	32* [b]	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	16.6	17* [a]	40.6	37	84* [b]	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	74.5	75	74.6	68	0	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	77.2	77	83.6	76	8	30-130/20
95-48-7	2-Methylphenol	ND		100	26.8	27* [a]	50.6	46	61* [b]	30-130/20
	3&4-Methylphenol	ND		200	52.7	26* [a]	96.0	44	58* [b]	30-130/20
88-75-5	2-Nitrophenol	ND		100	50.5	51	67.9	62	29* [b]	30-130/20
100-02-7	4-Nitrophenol	ND		100	34.0	34	37.3	34	9	30-130/20
87-86-5	Pentachlorophenol	ND		100	48.0	48	56.5	51	16	30-130/20
108-95-2	Phenol	ND		100	17.5	18* [a]	28.1	26* [a]	46* [b]	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	62.0	62	74.1	67	18	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	54.4	54	71.9	65	28* [b]	30-130/20
62-53-3	Aniline	ND		50	12.7	25* [a]	17.3	31* [a]	31* [b]	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	33.3	67	37.6	68	12	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	19.5	39* [a]	21.2	39* [a]	8	40-140/20
100-51-6	Benzyl Alcohol	ND		50	22.5	45	33.4	61	39* [b]	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	26.9	54	34.9	64	26* [b]	40-140/20
106-47-8	4-Chloroaniline	ND		50	21.4	43	25.2	46	16	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	21.1	42	30.1	55	35* [b]	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	20.4	41	32.8	60	47* [b]	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	23.5	47	36.7	67	44* [b]	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	31.8	64	36.6	67	14	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	30.8	62	34.8	63	12	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	34.9	70	39.0	71	11	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	32.1	64	35.8	65	11	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	35.2	70	37.1	68	5	40-140/20
132-64-9	Dibenzofuran	ND		50	28.3	57	34.0	62	18	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	25.7	51	28.3	52	10	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	35.5	71	37.6	68	6	40-140/20
84-66-2	Diethyl phthalate	ND		50	14.0	28* [a]	15.8	29* [a]	12	40-140/20
131-11-3	Dimethyl phthalate	ND		50	1.9	4* [a]	2.8	5* [a]	38* [b]	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	0.51	J	50	35.1	69	36.4	65	4	40-140/20
118-74-1	Hexachlorobenzene	ND		50	35.0	70	39.6	72	12	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytieal Batch
OP31718-MS	F61172.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
OP31718-MSD	F61173.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
MC17600-1	F61174.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17567-1

7.3.1

7

CAS No.	Compound	MC17600-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	15.2	30* [a]	18.4	33* [a]	19	40-140/20
67-72-1	Hexachloroethane	ND		50	17.5	35* [a]	26.4	48	41* [b]	40-140/20
78-59-1	Isophorone	ND		50	26.5	53	35.0	64	28* [b]	40-140/20
88-74-4	2-Nitroaniline	ND		50	32.0	64	36.7	67	14	40-140/20
99-09-2	3-Nitroaniline	ND		50	27.1	54	29.3	53	8	40-140/20
100-01-6	4-Nitroaniline	ND		50	28.8	58	36.4	66	23* [b]	40-140/20
98-95-3	Nitrobenzene	ND		50	21.7	43	32.6	59	40* [b]	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	14.1	28* [a]	22.0	40	44* [b]	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	24.7	49	35.2	64	35* [b]	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	32.8	66	37.0	67	12	40-140/20
110-86-1	Pyridine	ND		50	10.6	21* [a]	16.1	29* [a]	41* [b]	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17600-1	Limits
367-12-4	2-Fluorophenol	24%	38%	29%	15-110%
4165-62-2	Phenol-d5	17%	26%	19%	15-110%
118-79-6	2,4,6-Tribromophenol	53%	68%	62%	15-110%
4165-60-0	Nitrobenzene-d5	44%	60%	57%	30-130%
321-60-8	2-Fluorobiphenyl	51%	61%	58%	30-130%
1718-51-0	Terphenyl-d14	66%	67%	60%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31719-MS	U11797.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
OP31719-MSD	U11798.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
MC17556-16	U11808.D	1	01/18/13	NS	01/17/13	OP31719	MSU614

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17567-1

7.3.2

7

CAS No.	Compound	MC17556-16 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	31.1	62	37.3	68	18	40-140/20
208-96-8	Acenaphthylene	ND		50	22.8	46	27.6	50	19	40-140/20
120-12-7	Anthracene	ND		50	33.9	68	38.1	69	12	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	36.7	73	40.9	74	11	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	33.8	68	37.0	67	9	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	34.4	69	38.5	70	11	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	35.0	70	37.5	68	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	37.6	75	40.3	73	7	40-140/20
218-01-9	Chrysene	ND		50	36.2	72	40.1	73	10	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	35.0	70	37.5	68	7	40-140/20
206-44-0	Fluoranthene	ND		50	36.3	73	40.6	74	11	40-140/20
86-73-7	Fluorene	ND		50	34.1	68	37.6	68	10	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	34.1	68	37.2	68	9	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	28.2	56	37.2	68	28* [a]	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	25.7	51	34.8	63	30* [a]	40-140/20
85-01-8	Phenanthrene	ND		50	35.6	71	40.4	74	13	40-140/20
129-00-0	Pyrene	ND		50	36.6	73	40.2	73	9	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17556-16	Limits
4165-60-0	Nitrobenzene-d5	45%	61%	57%	30-130%
321-60-8	2-Fluorobiphenyl	55%	64%	64%	30-130%
1718-51-0	Terphenyl-d14	66%	70%	62%	30-130%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2871-CC2858	Injection Date:	01/18/13
Lab File ID:	F61166.D	Injection Time:	08:15
Instrument ID:	GCMSF	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	139829	3.96	412223	4.94	269667	6.37	517124	7.71	482695	10.47	751194	11.93
Upper Limit [a]	279658	4.46	824446	5.44	539334	6.87	1034248	8.21	965390	10.97	1502388	12.43
Lower Limit [b]	69915	3.46	206112	4.44	134834	5.87	258562	7.21	241348	9.97	375597	11.43
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	157131	3.96	467575	4.94	306615	6.37	593535	7.71	573480	10.47	908765	11.93
ZZZZZZ	151462	3.96	450020	4.94	299896	6.37	576224	7.71	587435	10.47	921027	11.93
OP31718-MB	138063	3.96	473688	4.94	329960	6.36	617522	7.70	724811	10.47	712857	11.93
OP31718-BS	121941	3.96	412323	4.94	282357	6.36	547216	7.71	659242	10.48	626649	11.93
OP31718-MS	126438	3.96	431548	4.95	301348	6.37	572025	7.71	680366	10.47	660169	11.93
OP31718-MSD	120820	3.96	425256	4.94	299052	6.36	571582	7.70	712624	10.48	683983	11.93
MC17600-1	118811	3.96	417133	4.94	289320	6.36	548271	7.70	667975	10.47	658044	11.93
MC17567-1	131795	3.96	450739	4.94	306794	6.36	571168	7.70	695168	10.47	678401	11.93
ZZZZZZ	119791	3.96	412661	4.94	290774	6.36	552705	7.71	673671	10.47	645033	11.92
ZZZZZZ	131164	3.96	454368	4.94	314348	6.36	595414	7.71	721890	10.47	719057	11.92
ZZZZZZ	118051	3.96	420586	4.94	285745	6.36	528360	7.70	638781	10.47	632461	11.93
ZZZZZZ	133389	3.96	451147	4.94	302772	6.36	567349	7.70	657411	10.47	650511	11.93
ZZZZZZ	125391	3.96	427049	4.94	294620	6.36	560551	7.70	700160	10.47	692832	11.93
ZZZZZZ	126867	3.96	425438	4.94	290503	6.36	540615	7.70	666940	10.48	665787	11.94
ZZZZZZ	126225	3.96	431282	4.94	297132	6.36	543517	7.71	638583	10.47	614562	11.93
ZZZZZZ	115470	3.96	397609	4.94	278551	6.36	542413	7.70	663957	10.47	648708	11.93
ZZZZZZ	118070	3.96	400602	4.94	276752	6.36	532763	7.70	667986	10.47	645560	11.93
ZZZZZZ	113730	3.96	397421	4.95	288696	6.36	559867	7.71	711730	10.47	709553	11.93
ZZZZZZ	108792	3.96	371500	4.94	262848	6.36	507954	7.70	645907	10.47	620950	11.93
ZZZZZZ	115987	3.96	404733	4.94	282528	6.36	559817	7.70	684067	10.47	665560	11.93
ZZZZZZ	115148	3.96	397975	4.94	279758	6.36	536647	7.70	664892	10.47	646858	11.93
ZZZZZZ	109311	3.96	381459	4.94	269902	6.36	530095	7.70	647379	10.47	653464	11.93
ZZZZZZ	107676	3.96	368914	4.94	258163	6.36	485024	7.71	586443	10.47	627682	11.93
ZZZZZZ	106852	3.96	365677	4.94	254204	6.36	478726	7.70	580432	10.48	619228	11.93
ZZZZZZ	100793	3.96	353320	4.94	246255	6.36	476277	7.70	568986	10.47	586674	11.93
ZZZZZZ	100935	3.96	353412	4.94	248490	6.36	477818	7.70	602477	10.48	621575	11.94
ZZZZZZ	106567	3.96	370492	4.94	256107	6.37	478120	7.71	562252	10.48	606768	11.93
ZZZZZZ	98799	3.96	339979	4.94	230531	6.36	446759	7.71	622395	10.49	697037	11.97

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2871-CC2858	Injection Date:	01/18/13
Lab File ID:	F61166.D	Injection Time:	08:15
Instrument ID:	GCMSF	Method:	SW846 8270C

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minntes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU614-CC609	Injection Date:	01/18/13
Lab File ID:	U11794.D	Injection Time:	12:22
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	144655	3.38	359367	4.35	188700	5.76	319699	7.01	217751	9.78	426304	11.18
Upper Limit [a]	289310	3.88	718734	4.85	377400	6.26	639398	7.51	435502	10.28	852608	11.68
Lower Limit [b]	72328	2.88	179684	3.85	94350	5.26	159850	6.51	108876	9.28	213152	10.68
Lab Sample ID	IS 1 AREA	RT	1S 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31719-MB	164173	3.38	411645	4.34	213775	5.76	359865	7.01	260197	9.78	508474	11.18
OP31719-BS	157909	3.38	390734	4.35	202039	5.76	349515	7.01	237825	9.78	487903	11.18
OP31719-MS	170066	3.38	425986	4.35	219742	5.76	385773	7.01	263927	9.78	541878	11.19
OP31719-MSD	167098	3.38	417594	4.35	216804	5.76	374901	7.01	259983	9.78	522493	11.18
ZZZZZZ	185710	3.38	459015	4.34	242054	5.76	414518	7.01	295731	9.78	590564	11.19
ZZZZZZ	180003	3.38	442527	4.34	230879	5.76	394338	7.01	286616	9.78	565850	11.18
ZZZZZZ	164836	3.38	404327	4.34	214034	5.76	365093	7.01	264153	9.78	512121	11.18
ZZZZZZ	181773	3.38	444725	4.34	229329	5.76	394308	7.01	289846	9.78	568575	11.18
ZZZZZZ	187459	3.38	458808	4.34	240279	5.76	404433	7.01	293346	9.78	578655	11.18
MC17567-1	169880	3.38	430073	4.34	217577	5.76	371868	7.01	273359	9.78	535700	11.19
ZZZZZZ	161560	3.38	409660	4.34	209483	5.76	368831	7.01	269039	9.78	527112	11.18
ZZZZZZ	173801	3.38	441075	4.34	225382	5.76	395039	7.01	290656	9.78	562543	11.19
ZZZZZZ	162849	3.38	405529	4.35	206121	5.76	362311	7.01	265751	9.78	513190	11.18
MC17556-16	160608	3.38	412807	4.34	211437	5.76	366606	7.01	265416	9.78	514628	11.18
ZZZZZZ	141383	3.38	351262	4.34	183239	5.76	307577	7.01	221918	9.78	434356	11.18
ZZZZZZ	129404	3.38	316046	4.34	157686	5.76	286345	7.01	209640	9.78	408298	11.18
OP31724-MB	159330	3.38	399528	4.34	208290	5.76	354436	7.01	250431	9.77	493681	11.18
ZZZZZZ	142358	3.38	355708	4.34	183963	5.76	309524	7.01	222378	9.77	429605	11.18
ZZZZZZ	152711	3.38	384094	4.34	197443	5.76	335422	7.01	243921	9.77	472965	11.18
ZZZZZZ	148501	3.38	367918	4.34	192006	5.76	326853	7.01	234332	9.77	450534	11.18
ZZZZZZ	138261	3.38	344678	4.34	180271	5.76	303980	7.01	217128	9.77	420434	11.18
ZZZZZZ	143739	3.38	360990	4.34	186068	5.76	317821	7.01	226692	9.77	440510	11.18
ZZZZZZ	164870	3.38	405433	4.34	210366	5.76	356208	7.01	257144	9.77	497857	11.18
ZZZZZZ	153488	3.38	372822	4.34	194265	5.76	327022	7.01	239491	9.77	463589	11.18
ZZZZZZ	154101	3.38	380191	4.34	198072	5.76	334996	7.01	238180	9.77	463887	11.18
ZZZZZZ	149404	3.38	377771	4.34	191874	5.76	324523	7.01	234865	9.77	455086	11.18
ZZZZZZ	149262	3.38	371695	4.34	188418	5.76	320170	7.01	232154	9.77	445828	11.18
ZZZZZZ	146708	3.38	366800	4.34	186248	5.76	319077	7.01	226416	9.77	437405	11.18
ZZZZZZ	146753	3.38	366805	4.34	189637	5.76	318063	7.01	226804	9.78	438460	11.18
ZZZZZZ	149691	3.38	373670	4.34	191201	5.76	321824	7.01	232126	9.77	444009	11.18
ZZZZZZ	147550	3.38	364744	4.34	187311	5.76	320257	7.01	227218	9.77	438713	11.18
ZZZZZZ	151503	3.38	373089	4.34	194589	5.76	329075	7.01	232718	9.77	442556	11.18
ZZZZZZ	145288	3.38	361803	4.34	189630	5.76	320493	7.01	228163	9.77	435078	11.18

IS 1 = 1,4-Dichlorobenzene-d4

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU614-CC609	Injection Date:	01/18/13
Lab File ID:	U11794.D	Injection Time:	12:22
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17567-1	F61175.D	32.0	22.0	68.0	53.0	57.0	51.0
OP31718-BS	F61171.D	33.0	23.0	72.0	53.0	59.0	73.0
OP31718-MB	F61170.D	34.0	22.0	64.0	54.0	56.0	70.0
OP31718-MS	F61172.D	24.0	17.0	53.0	44.0	51.0	66.0
OP31718-MSD	F61173.D	38.0	26.0	68.0	60.0	61.0	67.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17567-1	U11804.D	54.0	62.0	55.0
OP31719-BS	U11796.D	54.0	62.0	74.0
OP31719-MB	U11795.D	56.0	60.0	68.0
OP31719-MS	U11797.D	45.0	55.0	66.0
OP31719-MSD	U11798.D	61.0	64.0	70.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

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QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Dnplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-MB	YZ77994.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17567-1, MC17567-3

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	128%	36-173%
460-00-4	Bromofluorobenzene (S)	117%	36-173%

Blank Spike Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-BS	YZ77995.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17567-1, MC17567-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.071	100	60-140
106-93-4	1,2-Dibromoethane	0.071	0.076	107	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	134%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	36-173%

8.2.1

* = Ontside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-MS	YZ77996.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
OP31739-MSD	YZ77997.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
MC17700-2	YZ77998.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17567-1, MC17567-3

CAS No.	Compound	MC17700-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.073	103	0.077	108	5	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.078	110	0.085	120	9	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17700-2	Limits
460-00-4	Bromofluorobenzene (S)	127%	135%	137%	36-173%
460-00-4	Bromofluorobenzene (S)	113%	124%	124%	36-173%

8.3.1

8

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17567-1	YZ77999.D	135.0	112.0
MC17567-3	YZ78000.D	136.0	115.0
OP31739-BS	YZ77995.D	134.0	121.0
OP31739-MB	YZ77994.D	128.0	117.0
OP31739-MS	YZ77996.D	127.0	113.0
OP31739-MSD	YZ77997.D	135.0	124.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC17567
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7023-CC7022	Injection Date:	01/22/13
Lab File ID:	YZ77993A.D	Injection Time:	02:49
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	SI [b] RT
OP31739-MB	YZ77994.D	01/22/13	03:14	3.48	3.76
OP31739-BS	YZ77995.D	01/22/13	03:40	3.48	3.76
OP31739-MS	YZ77996.D	01/22/13	04:05	3.48	3.76
OP31739-MSD	YZ77997.D	01/22/13	04:31	3.48	3.76
MC17700-2	YZ77998.D	01/22/13	04:55	3.48	3.76
MC17567-1	YZ77999.D	01/22/13	05:21	3.48	3.76
MC17567-3	YZ78000.D	01/22/13	05:46	3.48	3.76
ZZZZZZ	YZ78001.D	01/22/13	06:11	3.48	3.76
ZZZZZZ	YZ78002.D	01/22/13	06:36	3.48	3.76
ZZZZZZ	YZ78003.D	01/22/13	07:02	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17569

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/19/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW7-ROX-011513	MW7-ROX-011513-Dup
MW8-ROX-011513	TB-011513-HCL
TB-011513-ST	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. Internal standard area recovery for tert butyl alcohol-d_9 in Run#2 results for sample MW8-ROX-011513 was outside criteria. Samples were diluted due to high levels of VOC target analytes. Additionally, the continuing calibration verification for acrolein exceeded 50 percent difference (%D). These issues are addressed further in the appropriate sections below.

The cooler receipt form did not indicate any problems

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2187-BS/BSD	VOCs	Acetone	**147**/120	20	70-130/25

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2187-BS/BSD	VOCs	Acrolein	**69**/74	7	70-130/25
MSK2187-BS/BSD	VOCs	Acrylonitrile	**137/131**	4	70-130/25
MSK2187-BS/BSD	VOCs	Chloroethane	**132**/124	7	70-130/25
MSK2187-BS/BSD	VOCs	2-Chloroethyl vinyl ether	**35/34**	2	70-130/25
MSK2187-BS/BSD	VOCs	Chloromethane	**143/134**	6	70-130/25
MSK2187-BS/BSD	VOCs	1,1-Dichloroethene	**131**/125	5	70-130/25
OP31718-BS	SVOCs	Benzoic acid	**27**	NA	30-130
OP31718-BS	SVOCs	Phenol	**23**	NA	30-130
OP31718-BS	SVOCs	Aniline	**29**	NA	40-140
OP31718-BS	SVOCs	Dimethyl phthalate	**13**	NA	40-140
OP31718-BS	SVOCs	Hexachlorocyclopentadiene	**27**	NA	40-140
OP31718-BS	SVOCs	n-Nitrosodimethylamine	**34**	NA	40-140
OP31718-BS	SVOCs	Pyridine	**22**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LCSD MSK2187-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
MW7-ROX-011513	VOCs	Acrolein	**UJ**
MW7-ROX-011513	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW7-ROX-011513-Dup	VOCs	Acrolein	**UJ**
MW7-ROX-011513-Dup	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW8-ROX-011513	VOCs	Acrolein	**UJ**
MW8-ROX-011513	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW7-ROX-011513	SVOCs	Benzoic acid	**UJ**
MW7-ROX-011513	SVOCs	Phenol	**J**
MW7-ROX-011513	SVOCs	Aniline	**UJ**
MW7-ROX-011513	SVOCs	Dimethyl phthalate	**UJ**
MW7-ROX-011513	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-011513	SVOCs	n-Nitrosodimethylamine	**UJ**
MW7-ROX-011513	SVOCs	Pyridine	**UJ**
MW7-ROX-011513-Dup	SVOCs	Benzoic acid	**UJ**
MW7-ROX-011513-Dup	SVOCs	Phenol	**J**
MW7-ROX-011513-Dup	SVOCs	Aniline	**UJ**
MW7-ROX-011513-Dup	SVOCs	Dimethyl phthalate	**UJ**
MW7-ROX-011513-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-011513-Dup	SVOCs	n-Nitrosodimethylamine	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW7-ROX-011513-Dup	SVOCs	Pyridine	**UJ**
MW8-ROX-011513	SVOCs	Benzoic acid	**UJ**
MW8-ROX-011513	SVOCs	Phenol	**J**
MW8-ROX-011513	SVOCs	Aniline	**UJ**
MW8-ROX-011513	SVOCs	Dimethyl phthalate	**UJ**
MW8-ROX-011513	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW8-ROX-011513	SVOCs	n-Nitrosodimethylamine	**UJ**
MW8-ROX-011513	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	IS Criteria
MW8-ROX-011513	VOCs	Tert butyl alcohol-d_9	**21619**	22271-89084

Analytical data that required qualification based on internal standard data are included in the table below.

Field ID	Parameter	Analyte	Qualification
MW8-ROX-011513	VOCs	Benzene	**J**

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
MW7-ROX-011513	MW7-ROX-011513-Dup

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Although the continuing calibration verification recovery for acrolein exceeded 50 percent difference (%D), acrolein in associated samples was previously qualified in Section 5.0 of this review due to LCS data. No further qualification of acrolein was required.

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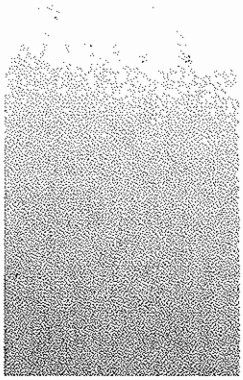
02/01/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17569

Sampling Date: 01/15/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: 77

Rev. signed on 2/19/2013

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.

Reza Tand
Lab Director

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 8
4.1: MC17569-1: MW7-ROX-011513 9
4.2: MC17569-2: MW7-ROX-011513-DUP 16
4.3: MC17569-3: MW8-ROX-011513 23
4.4: MC17569-4: TB-011513-HCL 30
4.5: MC17569-5: TB-011513-ST 33
Section 5: Misc. Forms 34
5.1: Chain of Custody 35
5.2: Sample Tracking Chronicle 37
5.3: Internal Chain of Custody 38
Section 6: GC/MS Volatiles - QC Data Summaries 39
6.1: Method Blank Summary 40
6.2: Blank Spike Summary 44
6.3: Blank Spike/Blank Spike Duplicate Summary 45
6.4: Matrix Spike/Matrix Spike Duplicate Summary 48
6.5: Internal Standard Area Summaries 52
6.6: Surrogate Recovery Summaries 54
Section 7: GC/MS Semi-volatiles - QC Data Summaries 55
7.1: Method Blank Summary 56
7.2: Blank Spike Summary 59
7.3: Matrix Spike/Matrix Spike Duplicate Summary 62
7.4: Internal Standard Area Summaries 65
7.5: Surrogate Recovery Summaries 69
Section 8: GC Volatiles - QC Data Summaries 71
8.1: Method Blank Summary 72
8.2: Blank Spike Summary 73
8.3: Matrix Spike/Matrix Spike Duplicate Summary 74
8.4: Surrogate Recovery Summaries 75
8.5: GC Surrogate Retention Time Summaries 76

Sample Summary

Shell Oil

Job No: MC17569

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17569-1	01/15/13	00:00	LRBH	01/16/13	AQ	Ground Water	MW7-ROX-011513
MC17569-2	01/15/13	00:00	LRBH	01/16/13	AQ	Ground Water	MW7-ROX-011513-DUP
MC17569-3	01/15/13	00:00	LRBH	01/16/13	AQ	Ground Water	MW8-ROX-011513
MC17569-4	01/15/13	00:00	LRBH	01/16/13	AQ	Trip Blank Water	TB-011513-HCL
MC17569-5	01/15/13	00:00	LRBH	01/16/13	AQ	Trip Blank Water	TB-011513-ST

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC17569
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	**Report Date**	1/30/2013 4:22:18 PM

3 Sample(s), 2 Trip Blank(s) were collected on 01/15/2013 and were received at Accutest on 01/16/2013 properly preserved, at 2.2 Deg. C and intact. These Samples received an Accutest job number of MC17569. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSK2187

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17505-7MS, MC17505-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1-Dichloroethene, 2-Chloroethyl vinyl ether, Acetone, Acrolein, Acrylonitrile, Chloroethane, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplicate Recovery(s) for 2-Chloroethyl vinyl ether, Acrylonitrile, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Calibration check standard MSK2187-CC2177 for acrolein exceeds 50% Difference (response bias high). Associated samples are non-detect for this compound.

Matrix AQ **Batch ID:** MSK2189

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17565-6MS, MC17565-6MSD were used as the QC samples indicated.
- MC17565-6MS, MC17569-3 for Tert Butyl Alcohol-D9: Outside control limits. Target analytes not associated with this internal standard.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP31718

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the reecommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17600-1MS, MC17600-1MSD were used as the QC samples indicated.
- Calibration standard MSF2858-ICC2858, MSF2858-ICV2858, MSF2871-CC2858 not associated with this job.
- Blank Spike Recovery(s) for Aniline, Benzoic Acid, Dimethyl phthalate, Hexachlorocyclopentadiene, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2,4-Dimethylphenol, 2-Methylphenol, 3&4-Methylphenol, Aniline, Benzoic Acid, Butyl benzyl phthalate, Diethyl phthalate, Dimethyl phthalate, Hexachlorocyclopentadiene, Hexachloroethane, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Benzoic Acid, Butyl benzyl phthalate, Diethyl phthalate, Hexachlorocyclopentadiene, Aniline, Dimethyl phthalate, Phenol, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2-Chloronaphthalene, 2-Chlorophenol, 2-Methylphenol, 2-Nitrophenol, 3&4-Methylphenol, 4-Chloro-3-methyl phenol, 4-Nitroaniline, Aniline, Benzyl Alcohol, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl)ether, bis(2-Chloroisopropyl)ether, Dimethyl phthalate, Hexachloroethane, Isophorone, N-Nitroso-di-n-propylamine, n-Nitrosodimethylamine, Nitrobenzene, Phenol, Pyridine are outside control limits for sample OP31718-MSD. High RPD due to possible matrix interferenee and/or sample non-homogeneity.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31719

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17556-16MS, MC17556-16MSD were nsed as the QC samples indicated.
- RPD(s) for MSD for 1-Methylnaphthalene, 2-Methylnaphthalene are outside control limits for sample OP31719-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31739

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17700-2MS, MC17700-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be nsed in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17569).

Summary of Hits

Job Number: MC17569
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/15/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17569-1	MW7-ROX-011513					
Benzene		1230000	2000	960	ug/l	SW846 8260B
Phenol		86.5	5.3	1.1	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		0.61 J	2.1	0.49	ug/l	SW846 8270C
Acenaphthene		0.73	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.11	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.059 J	0.11	0.019	ug/l	SW846 8270C BY SIM
Fluoranthene		0.040 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.61	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		18.7	0.21	0.15	ng/l	SW846 8270C BY SIM
2-Methylnaphthalene		22.4	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.86	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.089 J	0.11	0.038	ug/l	SW846 8270C BY SIM
MC17569-2	MW7-ROX-011513-DUP					
Benzene		1320000	2000	960	ug/l	SW846 8260B
Phenol		73.5	5.2	1.1	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		0.55 J	2.1	0.48	ug/l	SW846 8270C
Acenaphthene		0.66	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.093 J	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.57	0.10	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		17.3	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		20.7	0.21	0.054	ug/l	SW846 8270C BY SIM
Phenanthrene		0.78	0.052	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.078 J	0.10	0.037	ug/l	SW846 8270C BY SIM
MC17569-3	MW8-ROX-011513					
Benzene		1120000	5000	2400	ug/l	SW846 8260B
Toluene		2090	2000	1000	ug/l	SW846 8260B
2,4-Dimethylphenol		19.0	11	1.7	ug/l	SW846 8270C
2-Methylphenol		33.2	11	2.2	ug/l	SW846 8270C
3&4-Methylphenol		102	11	1.1	ug/l	SW846 8270C
Phenol		99.7	5.6	1.1	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		0.89 J	2.2	0.51	ug/l	SW846 8270C
Acenaphthene		0.17	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.085 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Anthracene		0.029 J	0.11	0.020	ug/l	SW846 8270C BY SIM
Fluoreue		0.41	0.11	0.051	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		11.0	0.22	0.16	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		12.9	0.22	0.058	ug/l	SW846 8270C BY SIM
Phenanthrene		0.16	0.056	0.014	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC17569
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/15/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

MC17569-4 TB-011513-HCL

No hits reported in this sample.

MC17569-5 TB-011513-ST

No hits reported in this sample.

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4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW7-ROX-011513		
Lab Sample ID:	MC17569-1	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66627.D	4000	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20000	12000	ug/l	
107-02-8	Acrolein	ND	100000	41000	ug/l	UJ
107-13-1	Acrylonitrile	ND	20000	13000	ug/l	
71-43-2	Benzene	1230000	2000	960	ug/l	
108-86-1	Bromobenzene	ND	20000	2500	ug/l	
74-97-5	Bromochloromethane	ND	20000	5000	ug/l	
75-27-4	Bromodichloromethane	ND	4000	2300	ug/l	
75-25-2	Bromoform	ND	4000	3100	ug/l	
74-83-9	Bromomethane	ND	8000	4000	ug/l	
78-93-3	2-Bntanone (MEK)	ND	20000	9700	ug/l	
104-51-8	n-Butylbenzene	ND	20000	2400	ng/l	
135-98-8	sec-Butylbenzene	ND	20000	2200	ug/l	
98-06-6	tert-Butylbenzene	ND	20000	2600	ug/l	
75-15-0	Carbon disulfide	ND	20000	2500	ng/l	
56-23-5	Carbon tetrachloride	ND	4000	3500	ng/l	
108-90-7	Chlorobenzene	ND	4000	1900	ug/l	
75-00-3	Chloroethane	ND	8000	2000	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	20000	5000	ug/l	UJ
67-66-3	Chloroform	ND	4000	2000	ug/l	
74-87-3	Chloromethane	ND	8000	2900	ug/l	
95-49-8	o-Chlorotoluene	ND	20000	2600	ug/l	
106-43-4	p-Chlorotoluene	ND	20000	1900	ug/l	
124-48-1	Dibromochloromethane	ND	4000	2100	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4000	3700	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4000	1800	ug/l	
106-46-7	1,4-Dichlorobenzeue	ND	4000	2500	ng/l	
75-71-8	Dichlorodifluoromethane	ND	8000	6900	ug/l	
75-34-3	1,1-Dichloroethane	ND	4000	2500	ng/l	
107-06-2	1,2-Dichloroethane	ND	4000	2500	ug/l	
75-35-4	1,1-Dichloroethene	ND	4000	1600	ng/l	
156-59-2	cis-1,2-Dichloroethene	ND	4000	2600	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	4000	3800	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:	MW7-ROX-011513		
Lab Sample ID:	MC17569-1	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	8000	2900	ug/l	
142-28-9	1,3-Dichloropropane	ND	20000	2600	ug/l	
594-20-7	2,2-Dichloropropane	ND	20000	6300	ug/l	
563-58-6	1,1-Dichloropropene	ND	20000	3600	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2000	1800	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2000	790	ug/l	
123-91-1	1,4-Dioxane	ND	100000	59000	ug/l	
97-63-2	Ethyl methacrylate	ND	20000	3200	ug/l	
100-41-4	Ethylbenzene	ND	4000	2000	ug/l	
87-68-3	Hexachlorobutadiene	ND	20000	8200	ug/l	
591-78-6	2-Hexanone	ND	20000	7800	ug/l	
98-82-8	Isopropylbenzene	ND	20000	2000	ug/l	
99-87-6	p-Isopropyltoluene	ND	20000	2300	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	4000	1600	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	20000	12000	ug/l	
74-95-3	Methylene bromide	ND	20000	4400	ug/l	
75-09-2	Methylene chloride	ND	8000	3300	ug/l	
91-20-3	Naphthalene	ND	20000	2000	ug/l	
103-65-1	n-Propylbenzene	ND	20000	2300	ug/l	
100-42-5	Styrene	ND	20000	1800	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	20000	2300	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4000	2400	ug/l	
127-18-4	Tetrachloroethene	ND	4000	1700	ug/l	
108-88-3	Toluene	ND	4000	2000	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20000	5000	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20000	5200	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	4000	3400	ug/l	
79-00-5	1,1,2-Trichloroethaue	ND	4000	2000	ug/l	
79-01-6	Trichloroethene	ND	4000	3100	ug/l	
75-69-4	Trichlorofluoromethaue	ND	4000	1100	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20000	3400	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	20000	1400	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	20000	1900	ug/l	
108-05-4	Vinyl Acetate	ND	20000	5000	ug/l	
75-01-4	Vinyl chloride	ND	4000	2500	ug/l	
	m,p-Xylene	ND	4000	2900	ug/l	
95-47-6	o-Xylene	ND	4000	2300	ug/l	
1330-20-7	Xylene (total)	ND	4000	2300	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:	MW7-ROX-011513		
Lab Sample ID:	MC17569-1	**Date Sampled:**	01/15/13
Matrix:	AQ - Ground Water	**Date Received:**	01/16/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW7-ROX-011513		
Lab Sample ID:	MC17569-1	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61176.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	UJ
95-57-8	2-Chlorophenol	ND	5.3	0.75	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.59	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	86.5	5.3	1.1	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ng/l	UJ
85-68-7	Butyl benzyl phthalate	ND	5.3	0.70	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ng/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.82	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.95	ng/l	
132-64-9	Dibenzofuran	ND	2.1	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	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 evideuce of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-011513		
Lab Sample ID:	MC17569-1	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	0.61	2.1	0.49	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.92	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ng/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		15-110%
4165-62-2	Phenol-d5	28%		15-110%
118-79-6	2,4,6-Tribromophenol	70%		15-110%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW7-ROX-011513		
Lab Sample ID:	MC17569-1	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11805.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.73	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.11	0.11	0.014	ug/l	
120-12-7	Anthracene	0.059	0.11	0.019	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ug/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	0.040	0.11	0.035	ug/l	J
86-73-7	Fluorene	0.61	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	18.7	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	22.4	0.21	0.055	ug/l	
85-01-8	Phenanthrene	0.86	0.053	0.013	ug/l	
129-00-0	Pyrene	0.089	0.11	0.038	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	67%		30-130%
1718-51-0	Terphenyl-d14	61%		30-130%

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

Report of Analysis

Client Sample ID:	MW7-ROX-011513		
Lab Sample ID:	MC17569-1	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78001.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	35.7 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	127%		36-173%
460-00-4	Bromofluorobenzene (S)	112%		36-173%

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

Report of Analysis

Client Sample ID:	MW7-ROX-011513-DUP		
Lab Sample ID:	MC17569-2	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66628.D	4000	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20000	12000	ug/l	
107-02-8	Acrolein	ND	100000	41000	ug/l	UJ
107-13-1	Acrylonitrile	ND	20000	13000	ug/l	
71-43-2	Benzene	1320000	2000	960	ug/l	
108-86-1	Bromobenzene	ND	20000	2500	ug/l	
74-97-5	Bromocbloromethane	ND	20000	5000	ug/l	
75-27-4	Bromodichloromethane	ND	4000	2300	ug/l	
75-25-2	Bromoform	ND	4000	3100	ug/l	
74-83-9	Bromomethane	ND	8000	4000	ug/l	
78-93-3	2-Butanone (MEK)	ND	20000	9700	ug/l	
104-51-8	n-Butylbenzene	ND	20000	2400	ug/l	
135-98-8	sec-Butylbenzene	ND	20000	2200	ug/l	
98-06-6	tert-Butylbenzene	ND	20000	2600	ug/l	
75-15-0	Carbon disulfide	ND	20000	2500	ug/l	
56-23-5	Carbon tetrachloride	ND	4000	3500	ug/l	
108-90-7	Chlorobenzene	ND	4000	1900	ug/l	
75-00-3	Chloroethane	ND	8000	2000	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	20000	5000	ug/l	UJ
67-66-3	Chloroform	ND	4000	2000	ug/l	
74-87-3	Chloromethane	ND	8000	2900	ug/l	
95-49-8	o-Chlorotoluene	ND	20000	2600	ug/l	
106-43-4	p-Chlorotoluene	ND	20000	1900	ug/l	
124-48-1	Dibromochloromethane	ND	4000	2100	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4000	3700	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4000	1800	ug/l	
106-46-7	1,4-Dichlorohenzene	ND	4000	2500	ug/l	
75-71-8	Dichlorodifluoromethane	ND	8000	6900	ug/l	
75-34-3	1,1-Dichloroethane	ND	4000	2500	ug/l	
107-06-2	1,2-Dichloroethane	ND	4000	2500	ug/l	
75-35-4	1,1-Dichloroethene	ND	4000	1600	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	4000	2600	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	4000	3800	ug/l	

ND = Not detected MDL - Method Detection Limit
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a componnd

Report of Analysis

Client Sample ID:	MW7-ROX-011513-DUP		
Lab Sample ID:	MC17569-2	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	8000	2900	ug/l	
142-28-9	1,3-Dichloropropane	ND	20000	2600	ug/l	
594-20-7	2,2-Dichloropropane	ND	20000	6300	ug/l	
563-58-6	1,1-Dichloropropene	ND	20000	3600	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2000	1800	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2000	790	ug/l	
123-91-1	1,4-Dioxane	ND	100000	59000	ug/l	
97-63-2	Ethyl methacrylate	ND	20000	3200	ug/l	
100-41-4	Ethylbenzene	ND	4000	2000	ug/l	
87-68-3	Hexachlorobutadiene	ND	20000	8200	ug/l	
591-78-6	2-Hexanone	ND	20000	7800	ug/l	
98-82-8	Isopropylbenzene	ND	20000	2000	ug/l	
99-87-6	p-Isopropyltoluene	ND	20000	2300	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	4000	1600	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	20000	12000	ug/l	
74-95-3	Methylene bromide	ND	20000	4400	ug/l	
75-09-2	Methylene chloride	ND	8000	3300	ug/l	
91-20-3	Naphthalene	ND	20000	2000	ug/l	
103-65-1	n-Propylbenzene	ND	20000	2300	ug/l	
100-42-5	Styrene	ND	20000	1800	ng/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	20000	2300	ug/l	
79-34-5	1,1,2,2-Tetrachloroetbane	ND	4000	2400	ug/l	
127-18-4	Tetrachloroethene	ND	4000	1700	ug/l	
108-88-3	Toluene	ND	4000	2000	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20000	5000	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20000	5200	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	4000	3400	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	4000	2000	ng/l	
79-01-6	Trichloroethene	ND	4000	3100	ug/l	
75-69-4	Trichlorofluoromethane	ND	4000	1100	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20000	3400	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	20000	1400	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	20000	1900	ug/l	
108-05-4	Vinyl Acetate	ND	20000	5000	ug/l	
75-01-4	Vinyl chloride	ND	4000	2500	ug/l	
	m,p-Xylene	ND	4000	2900	ug/l	
95-47-6	o-Xylene	ND	4000	2300	ug/l	
1330-20-7	Xylene (total)	ND	4000	2300	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 aualyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-ROX-011513-DUP		
Lab Sample ID:	MC17569-2	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	119%		70-130%
2037-26-5	Tolnene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	110%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW7-ROX-011513-DUP		
Lab Sample ID:	MC17569-2	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61177.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	UJ
95-57-8	2-Chlorophenol	ND	5.2	0.74	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.1	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.56	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	73.5	5.2	1.1	ug/l	J
95-95-4	2,4,5-Tricblorophenol	ND	10	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.9	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.76	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.69	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.5	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.84	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.80	ng/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.93	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.57	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	1.3	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:	MW7-ROX-011513-DUP		
Lab Sample ID:	MC17569-2	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.52	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.21	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	0.55	2.1	0.48	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.2	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	1.7	ug/l	
78-59-1	Isophorone	ND	5.2	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.90	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	1.0	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		15-110%
4165-62-2	Phenol-d5	25%		15-110%
118-79-6	2,4,6-Tribromophenol	69%		15-110%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	59%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW7-ROX-011513-DUP		
Lab Sample ID:	MC17569-2	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11806.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.66	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.093	0.10	0.014	ug/l	J
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.039	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.061	ug/l	
218-01-9	Chrysene	ND	0.10	0.076	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.034	ug/l	
86-73-7	Fluorene	0.57	0.10	0.048	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.048	ug/l	
90-12-0	1-Methylnaphthalene	17.3	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	20.7	0.21	0.054	ug/l	
85-01-8	Phenanthrene	0.78	0.052	0.013	ug/l	
129-00-0	Pyrene	0.078	0.10	0.037	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	59%		30-130%

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:	MW7-ROX-011513-DUP		
Lab Sample ID:	MC17569-2	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78002.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	35.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	132%		36-173%
460-00-4	Bromofluorobenzene (S)	113%		36-173%

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

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

Report of Analysis

Client Sample ID:	MW8-ROX-011513		
Lab Sample ID:	MC17569-3	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66629.D	2000	01/21/13	GK	n/a	n/a	MSK2187
Run #2	K66678.D	10000	01/22/13	GK	n/a	n/a	MSK2189

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10000	6000	ug/l	
107-02-8	Acrolein	ND	50000	20000	ng/l	uJ
107-13-1	Acrylonitrile	ND	10000	6500	ug/l	
71-43-2	Benzene	1120000 [a]	5000	2400	ug/l	J
108-86-1	Bromobenzene	ND	10000	1200	ug/l	
74-97-5	Bromochloromethaue	ND	10000	2500	ug/l	
75-27-4	Bromodichloromethane	ND	2000	1200	ug/l	
75-25-2	Bromoform	ND	2000	1600	ng/l	
74-83-9	Bromomethaue	ND	4000	2000	ug/l	
78-93-3	2-Butanone (MEK)	ND	10000	4800	ug/l	
104-51-8	n-Butylbenzene	ND	10000	1200	ug/l	
135-98-8	sec-Butylbenzene	ND	10000	1100	ug/l	
98-06-6	tert-Butylbenzene	ND	10000	1300	ng/l	
75-15-0	Carbon disulfide	ND	10000	1200	ug/l	
56-23-5	Carbon tetrachloride	ND	2000	1700	ug/l	
108-90-7	Chlorobenzene	ND	2000	940	ug/l	
75-00-3	Chloroethane	ND	4000	1000	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10000	2500	ug/l	uJ
67-66-3	Chloroform	ND	2000	990	ug/l	
74-87-3	Chloromethane	ND	4000	1500	ug/l	
95-49-8	o-Chlorotoluene	ND	10000	1300	ug/l	
106-43-4	p-Chlorotoluene	ND	10000	970	ug/l	
124-48-1	Dibromochloromethane	ND	2000	1100	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2000	1900	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2000	900	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	2000	1300	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4000	3500	ug/l	
75-34-3	1,1-Dichloroethane	ND	2000	1200	ug/l	
107-06-2	1,2-Dichloroethane	ND	2000	1300	ug/l	
75-35-4	1,1-Dichloroethene	ND	2000	820	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	2000	1300	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	2000	1900	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:	MW8-ROX-011513		
Lab Sample ID:	MC17569-3	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	4000	1400	ug/l	
142-28-9	1,3-Dichloropropane	ND	10000	1300	ug/l	
594-20-7	2,2-Dichloropropane	ND	10000	3100	ug/l	
563-58-6	1,1-Dichloropropene	ND	10000	1800	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1000	900	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1000	390	ug/l	
123-91-1	1,4-Dioxane	ND	50000	30000	ug/l	
97-63-2	Ethyl methacrylate	ND	10000	1600	ug/l	
100-41-4	Ethylbenzene	ND	2000	1000	ug/l	
87-68-3	Hexachlorobutadiene	ND	10000	4100	ug/l	
591-78-6	2-Hexanone	ND	10000	3900	ug/l	
98-82-8	Isopropylbenzene	ND	10000	1000	ug/l	
99-87-6	p-Isopropyltoluene	ND	10000	1100	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2000	820	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	10000	5800	ug/l	
74-95-3	Methylene bromide	ND	10000	2200	ug/l	
75-09-2	Methylene chloride	ND	4000	1700	ug/l	
91-20-3	Naphthalene	ND	10000	1000	ug/l	
103-65-1	n-Propylbenzene	ND	10000	1200	ug/l	
100-42-5	Styrene	ND	10000	910	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10000	1100	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2000	1200	ug/l	
127-18-4	Tetrachloroethene	ND	2000	840	ug/l	
108-88-3	Toluene	2090	2000	1000	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10000	2500	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10000	2600	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2000	1700	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2000	1000	ug/l	
79-01-6	Trichloroethene	ND	2000	1600	ug/l	
75-69-4	Trichlorofluoromethane	ND	2000	570	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	10000	1700	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	10000	690	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	10000	930	ug/l	
108-05-4	Vinyl Acetate	ND	10000	2500	ug/l	
75-01-4	Vinyl chloride	ND	2000	1300	ug/l	
	m,p-Xylene	ND	2000	1500	ug/l	
95-47-6	o-Xylene	ND	2000	1200	ug/l	
1330-20-7	Xylene (total)	ND	2000	1200	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:	MW8-ROX-011513		
Lab Sample ID:	MC17569-3	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	118%	109%	70-130%
2037-26-5	Toluene-D8	110%	108%	70-130%
460-00-4	4-Bromofluorobenzene	111%	112%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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:	MW8-ROX-011513		
Lab Sample ID:	MC17569-3	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61178.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.4	ug/l	UJ
95-57-8	2-Chlorophenol	ND	5.6	0.79	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.61	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	19.0	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.8	ug/l	
95-48-7	2-Methylphenol	33.2	11	2.2	ug/l	
	3&4-Methylphenol	102	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.60	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	99.7	5.6	1.1	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	2.0	ug/l	
62-53-3	Aniline	ND	11	0.71	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	0.81	ug/l	
85-68-7	Butyl beuzyl phthalate	ND	5.6	0.73	ug/l	
100-51-6	Benzyl Alcohol	ND	11	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.8	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.38	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	1.6	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.89	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.85	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.99	ug/l	
132-64-9	Dibenzofuran	ND	2.2	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.6	0.61	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.6	1.4	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:	MW8-ROX-011513		
Lab Sample ID:	MC17569-3	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.6	0.56	ug/l	
131-11-3	Dimethyl phthalate	ND	5.6	0.23	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	0.89	2.2	0.51	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.6	0.59	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.6	1.8	ug/l	
78-59-1	Isophorone	ND	5.6	0.56	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.96	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.4	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ng/l	
98-95-3	Nitrobenzene	ND	5.6	0.56	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.6	1.1	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamiue	ND	5.6	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		15-110%
4165-62-2	Phenol-d5	26%		15-110%
118-79-6	2,4,6-Tribromophenol	66%		15-110%
4165-60-0	Nitrobenzene-d5	53%		30-130%
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW8-ROX-011513		
Lab Sample ID:	MC17569-3	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11807.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.17	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	0.085	0.11	0.015	ug/l	J
120-12-7	Anthracene	0.029	0.11	0.020	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.056	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.056	0.026	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.042	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.065	ug/l	
218-01-9	Chrysene	ND	0.11	0.081	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.046	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.036	ug/l	
86-73-7	Fluorene	0.41	0.11	0.051	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.051	ug/l	
90-12-0	1-Methylnaphthalene	11.0	0.22	0.16	ug/l	
91-57-6	2-Methylnaphthalene	12.9	0.22	0.058	ug/l	
85-01-8	Phenanthrene	0.16	0.056	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	61%		30-130%
1718-51-0	Terphenyl-d14	60%		30-130%

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:	MW8-ROX-011513		
Lab Sample ID:	MC17569-3	Date Sampled:	01/15/13
Matrix:	AQ - Ground Water	Date Received:	01/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78003.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	35.9 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	108%		36-173%
460-00-4	Bromoflnorobenzene (S)	104%		36-173%

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

Report of Analysis

Client Sample ID:	TB-011513-HCL		
Lab Sample ID:	MC17569-4	Date Sampled:	01/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66617.D	1	01/21/13	GK	n/a	n/a	MSK2187
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-011513-HCL		
Lab Sample ID:	MC17569-4	Date Sampled:	01/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

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

Report of Analysis

Client Sample ID:	TB-011513-HCL		
Lab Sample ID:	MC17569-4	Date Sampled:	01/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	116%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	109%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-011513-ST		
Lab Sample ID:	MC17569-5	Date Sampled:	01/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78005.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	35.4 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	135%		36-173%
460-00-4	Bromofluorobenzene (S)	117%		36-173%

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

New England ACCUTEST LABORATORIES

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Cnstody

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor # (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOS/ON ☐ CONSULTANT ☐ EU/ES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 8 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 1/15/13
PAGE: 1 of 1

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Email To Contact (Excel):
TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 3 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SITE ADDRESS: Street and City: 900 South Central Ave, ROXANA
State: IL
Global ID No.:
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO:
E-MAIL:
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21562660.03001
SAMPLER NAME(S) Print: L. Rathmac, B. Hailemariam
LAB USE ONLY: MC17569

SPECIAL INSTRUCTIONS OR NOTES :
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	PRESERVATIVE HNO3	PRESERVATIVE H2SO4	PRESERVATIVE NONE	PRESERVATIVE OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	MW7-ROX-011513	1/15/13		water	2			2	2	6	X	X	X	X	0	
-2	MW7-ROX-011513 Dup	↓		↓	↓			↓	↓	↓	X	X	X	X	↓	
-3	MW3-ROX-011513										X	X	X	X		
-4	TB-011513-HCL		00:00		↓					2	X					
-5	TB-011513-ST	↓	00:00	↓					2	2		X			↓	
																16A, 2C1

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	FED EX	1/15/13	17:30
FED EX	[signature]	1-16-13	1000

05/2006 Revision 2.2

MC17569: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17569 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/16/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SOUTH CENTRAL AVE No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4 Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V 508.481.6200
495 Technology Center West, Bldg One
F 508.481.7753
Marlborough, MA
www.accutest.com

5.1

5

MC17569: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17569

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17569-1 Collected: 15-JAN-13 00:00 By: LRBH Received: 16-JAN-13 By: MW7-ROX-011513						
MC17569-1	SW846 8270C	18-JAN-13 11:59	KR	17-JAN-13	MEW	AB8270SL+
MC17569-1	SW846 8270C BY SIM	18-JAN-13 16:27	NS	17-JAN-13	MEW	B8270SIMSL
MC17569-1	SW846 8260B	21-JAN-13 16:37	GK			V8260SL+
MC17569-1	SW846 8011	22-JAN-13 06:11	CZ	19-JAN-13	BJ	V8011SL
MC17569-2 Collected: 15-JAN-13 00:00 By: LRBH Received: 16-JAN-13 By: MW7-ROX-011513-DUP						
MC17569-2	SW846 8270C	18-JAN-13 12:22	KR	17-JAN-13	MEW	AB8270SL+
MC17569-2	SW846 8270C BY SIM	18-JAN-13 16:49	NS	17-JAN-13	MEW	B8270SIMSL
MC17569-2	SW846 8260B	21-JAN-13 17:04	GK			V8260SL+
MC17569-2	SW846 8011	22-JAN-13 06:36	CZ	19-JAN-13	BJ	V8011SL
MC17569-3 Collected: 15-JAN-13 00:00 By: LRBH Received: 16-JAN-13 By: MW8-ROX-011513						
MC17569-3	SW846 8270C	18-JAN-13 12:44	KR	17-JAN-13	MEW	AB8270SL+
MC17569-3	SW846 8270C BY SIM	18-JAN-13 17:11	NS	17-JAN-13	MEW	B8270SIMSL
MC17569-3	SW846 8260B	21-JAN-13 17:32	GK			V8260SL+
MC17569-3	SW846 8011	22-JAN-13 07:02	CZ	19-JAN-13	BJ	V8011SL
MC17569-3	SW846 8260B	22-JAN-13 16:47	GK			V8260SL+
MC17569-4 Collected: 15-JAN-13 00:00 By: LRBH Received: 16-JAN-13 By: TB-011513-HCL						
MC17569-4	SW846 8260B	21-JAN-13 12:03	GK			V8260SL+
MC17569-5 Collected: 15-JAN-13 00:00 By: LRBH Received: 16-JAN-13 By: TB-011513-ST						
MC17569-5	SW846 8011	22-JAN-13 07:52	CZ	19-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/16/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17569-1.1	Walk In Ref #22	Michael Rolo	01/17/13 07:22	Retrieve from Storage
MC17569-1.1	Michael Rolo		01/17/13 15:20	Depleted
MC17569-1.2	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17569-1.2	Chris Cataldo	Walk In Ref #22	01/19/13 19:09	Return to Storage
MC17569-1.3	VOC Ref #2	Gary Krasinski	01/21/13 11:10	Retrieve from Storage
MC17569-1.3	Gary Krasinski	VOC Ref #2	01/22/13 09:42	Return to Storage
MC17569-1.6	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17569-1.6	Bijan Jafari		01/21/13 13:55	Depleted
MC17569-2.1	Walk In Ref #22	Michael Rolo	01/17/13 07:22	Retrieve from Storage
MC17569-2.1	Michael Rolo		01/17/13 15:20	Depleted
MC17569-2.2	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17569-2.2	Chris Cataldo	Walk In Ref #22	01/19/13 19:09	Return to Storage
MC17569-2.4	VOC Ref #2	Gary Krasinski	01/21/13 11:10	Retrieve from Storage
MC17569-2.4	Gary Krasinski	VOC Ref #2	01/22/13 09:42	Return to Storage
MC17569-2.5	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17569-2.5	Bijan Jafari		01/21/13 13:55	Depleted
MC17569-3.1	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17569-3.1	Chris Cataldo	Walk In Ref #22	01/19/13 19:09	Return to Storage
MC17569-3.2	Walk In Ref #22	Michael Rolo	01/17/13 07:22	Retrieve from Storage
MC17569-3.2	Michael Rolo		01/17/13 15:20	Depleted
MC17569-3.3	VOC Ref #2	Gary Krasinski	01/21/13 11:10	Retrieve from Storage
MC17569-3.3	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17569-3.5	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17569-3.5	Bijan Jafari		01/21/13 13:55	Depleted
MC17569-4.2	VOC Ref #2	Gary Krasinski	01/21/13 10:06	Retrieve from Storage
MC17569-4.2	Gary Krasinski	VOC Ref #2	01/22/13 09:42	Return to Storage
MC17569-5.1	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17569-5.1	Bijan Jafari		01/21/13 13:55	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	u-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-MB	K66613.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromofluorobenzene	114%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-MB	K66664.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.24	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	70-130%
2037-26-5	Toluene-D8	107%	70-130%
460-00-4	4-Bromofluorobenzene	111%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-BS	K66661.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	52.8	106	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	113%	70-130%
460-00-4	4-Bromofluorobenzene	117%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	73.3	147* a	59.8	120	20	70-130/25
107-02-8	Acrolein	250	172	69* a	184	74	7	70-130/25
107-13-1	Acrylonitrile	50	68.7	137* a	65.7	131* a	4	70-130/25
71-43-2	Benzene	50	57.5	115	55.6	111	3	70-130/25
108-86-1	Bromobenzene	50	54.9	110	55.3	111	1	70-130/25
74-97-5	Bromochloromethane	50	53.4	107	52.8	106	1	70-130/25
75-27-4	Bromodichloromethane	50	54.6	109	53.1	106	3	70-130/25
75-25-2	Bromoform	50	44.4	89	43.2	86	3	70-130/25
74-83-9	Bromomethane	50	56.9	114	53.6	107	6	70-130/25
78-93-3	2-Butanone (MEK)	50	59.9	120	56.4	113	6	70-130/25
104-51-8	n-Butylbenzene	50	65.1	130	63.9	128	2	70-130/25
135-98-8	sec-Butylbenzene	50	59.3	119	58.4	117	2	70-130/25
98-06-6	tert-Butylbenzene	50	58.9	118	58.3	117	1	70-130/25
75-15-0	Carbon disulfide	50	63.8	128	60.4	121	5	70-130/25
56-23-5	Carbon tetrachloride	50	51.0	102	48.8	98	4	70-130/25
108-90-7	Chlorobenzene	50	46.1	92	46.1	92	0	70-130/25
75-00-3	Chloroethane	50	66.2	132* a	61.8	124	7	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	17.4	35* a	17.1	34* a	2	70-130/25
67-66-3	Chloroform	50	56.1	112	53.6	107	5	70-130/25
74-87-3	Chloromethane	50	71.4	143* a	67.1	134* a	6	70-130/25
95-49-8	o-Chlorotoluene	50	60.8	122	60.3	121	1	70-130/25
106-43-4	p-Chlorotoluene	50	61.1	122	60.2	120	1	70-130/25
124-48-1	Dibromochloromethane	50	49.9	100	49.7	99	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	52.4	105	51.8	104	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	51.4	103	51.4	103	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	51.9	104	51.3	103	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	60.8	122	56.7	113	7	70-130/25
75-34-3	1,1-Dichloroethane	50	61.4	123	59.1	118	4	70-130/25
107-06-2	1,2-Dichloroethane	50	52.7	105	51.5	103	2	70-130/25
75-35-4	1,1-Dichloroethene	50	65.7	131* a	62.5	125	5	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	56.8	114	55.1	110	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	60.0	120	57.1	114	5	70-130/25
78-87-5	1,2-Dichloropropane	50	60.8	122	58.7	117	4	70-130/25
142-28-9	1,3-Dichloropropane	50	53.7	107	52.3	105	3	70-130/25
594-20-7	2,2-Dichloropropane	50	54.9	110	52.8	106	4	70-130/25
563-58-6	1,1-Dichloropropene	50	62.1	124	60.7	121	2	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	58.7	117	57.1	114	3	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	62.7	125	60.7	121	3	70-130/25
123-91-1	1,4-Dioxane	250	316	126	270	108	16	70-130/25
97-63-2	Ethyl methacrylate	50	51.8	104	51.7	103	0	77-137/25
100-41-4	Ethylbenzene	50	57.8	116	57.1	114	1	70-130/25
87-68-3	Hexachlorobutadiene	50	50.3	101	49.7	99	1	70-130/25
591-78-6	2-Hexanone	50	59.4	119	54.5	109	9	70-130/25
98-82-8	Isopropylbenzene	50	58.6	117	57.9	116	1	70-130/25
99-87-6	p-Isopropyltoluene	50	60.1	120	59.2	118	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	59.9	120	58.4	117	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	54.8	110	53.2	106	3	70-130/25
74-95-3	Methylene bromide	50	54.1	108	52.0	104	4	70-130/25
75-09-2	Methylene chloride	50	60.2	120	58.2	116	3	70-130/25
91-20-3	Naphthalene	50	48.9	98	48.3	97	1	70-130/25
103-65-1	n-Propylbenzene	50	63.0	126	61.3	123	3	70-130/25
100-42-5	Styrene	50	52.4	105	51.4	103	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	49.2	98	49.0	98	0	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	57.4	115	57.8	116	1	70-130/25
127-18-4	Tetrachloroethene	50	49.7	99	49.8	100	0	70-130/25
108-88-3	Toluene	50	61.1	122	59.3	119	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	50.3	101	49.6	99	1	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.1	104	52.1	104	0	70-130/25
71-55-6	1,1,1-Trichloroethane	50	54.6	109	51.9	104	5	70-130/25
79-00-5	1,1,2-Trichloroetbane	50	55.2	110	53.8	108	3	70-130/25
79-01-6	Trichloroethene	50	55.0	110	52.8	106	4	70-130/25
75-69-4	Trichlorofluoromethane	50	55.7	111	52.8	106	5	70-130/25
96-18-4	1,2,3-Trichloropropane	50	60.5	121	59.1	118	2	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.5	111	54.9	110	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	55.3	111	54.6	109	1	70-130/25
108-05-4	Vinyl Acetate	50	60.9	122	57.7	115	5	70-130/25
75-01-4	Vinyl chloride	50	60.3	121	56.0	112	7	70-130/25
	m,p-Xylene	100	116	116	114	114	2	70-130/25
95-47-6	o-Xylene	50	54.1	108	54.1	108	0	70-130/25
1330-20-7	Xylene (total)	150	170	113	168	112	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2187-BS	K66610.D	1	01/21/13	GK	n/a	n/a	MSK2187
MSK2187-BSD	K66611.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	102%	70-130%
2037-26-5	Toluene-D8	112%	111%	70-130%
460-00-4	4-Bromofluorobenzene	115%	116%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	62.6	125	58.5	117	7	70-130/30
107-02-8	Acrolein	ND		250	1130	452* [a]	1150	460* [a]	2	70-130/30
107-13-1	Acrylonitrile	ND		50	56.4	113	57.4	115	2	70-130/30
71-43-2	Benzene	ND		50	53.2	106	52.1	104	2	70-130/30
108-86-1	Bromobenzene	ND		50	51.9	104	51.6	103	1	70-130/30
74-97-5	Bromochloromethane	ND		50	49.3	99	50.2	100	2	70-130/30
75-27-4	Bromodichloromethane	ND		50	51.3	103	50.1	100	2	70-130/30
75-25-2	Bromoform	ND		50	42.1	84	40.8	82	3	70-130/30
74-83-9	Bromomethane	ND		50	47.9	96	48.4	97	1	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	47.9	96	52.4	105	9	70-130/30
104-51-8	n-Butylbenzene	ND		50	59.8	120	58.7	117	2	70-130/30
135-98-8	sec-Butylbenzene	ND		50	55.1	110	54.2	108	2	70-130/30
98-06-6	tert-Butylbenzene	ND		50	54.3	109	53.6	107	1	70-130/30
75-15-0	Carbon disulfide	ND		50	51.6	103	51.6	103	0	70-130/30
56-23-5	Carbon tetrachloride	ND		50	48.7	97	46.8	94	4	70-130/30
108-90-7	Chlorobenzene	ND		50	44.9	90	44.5	89	1	70-130/30
75-00-3	Chloroethane	ND		50	55.7	111	56.5	113	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		50	51.9	104	51.5	103	1	70-130/30
74-87-3	Chloromethane	ND		50	53.3	107	53.2	106	0	70-130/30
95-49-8	o-Chlorotoluene	ND		50	55.7	111	55.1	110	1	70-130/30
106-43-4	p-Chlorotoluene	ND		50	56.8	114	55.6	111	2	70-130/30
124-48-1	Dibromochloromethane	ND		50	46.6	93	47.1	94	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	48.4	97	47.9	96	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	49.3	99	48.8	98	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	50.0	100	49.8	100	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	51.5	103	49.8	100	3	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	55.3	111	54.8	110	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	49.6	99	49.0	98	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	57.2	114	57.0	114	0	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	51.5	103	52.0	104	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	52.5	105	52.2	104	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	55.2	110	55.2	110	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	50.4	101	50.2	100	0	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	51.6	103	51.1	102	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	57.2	114	56.1	112	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Compound	MC17505-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	52.0	104	52.0	104	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	53.6	107	54.0	108	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	214	86	275	110	25	70-130/30
97-63-2	Ethyl methacrylate	ND		50	47.2	94	47.5	95	1	72-139/30
100-41-4	Ethylbenzene	ND		50	54.8	110	52.9	106	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	50.0	100	49.5	99	1	70-130/30
591-78-6	2-Hexanone	ND		50	47.1	94	50.0	100	6	70-130/30
98-82-8	Isopropylbenzene	ND		50	54.0	108	53.0	106	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	56.4	113	54.9	110	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.1	102	52.6	105	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	48.7	97	49.3	99	1	70-130/30
74-95-3	Methylene bromide	ND		50	50.4	101	50.0	100	1	70-130/30
75-09-2	Methylene chloride	ND		50	53.2	106	54.1	108	2	70-130/30
91-20-3	Naphthalene	ND		50	44.5	89	45.9	92	3	70-130/30
103-65-1	n-Propylbenzene	ND		50	57.9	116	57.1	114	1	70-130/30
100-42-5	Styrene	ND		50	47.6	95	46.5	93	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	47.7	95	47.3	95	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	53.6	107	54.3	109	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	48.3	97	47.7	95	1	70-130/30
108-88-3	Toluene	ND		50	56.8	114	55.7	111	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	46.1	92	47.3	95	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	47.6	95	49.3	99	4	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	51.0	102	49.6	99	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	51.3	103	52.1	104	2	70-130/30
79-01-6	Trichloroethene	ND		50	51.2	102	50.0	100	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	52.9	106	51.0	102	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	52.0	104	52.5	105	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	50.6	101	50.9	102	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	51.2	102	50.5	101	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	50.7	101	52.8	106	4	70-130/30
75-01-4	Vinyl chloride	ND		50	47.9	96	47.7	95	0	70-130/30
	m,p-Xylene	ND		100	111	111	108	108	3	70-130/30
95-47-6	o-Xylene	ND		50	52.7	105	51.1	102	3	70-130/30
1330-20-7	Xylene (total)	ND		150	164	109	159	106	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17505-7MS	K66621.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7MSD	K66622.D	1	01/21/13	GK	n/a	n/a	MSK2187
MC17505-7	K66618.D	1	01/21/13	GK	n/a	n/a	MSK2187

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-1, MC17569-2, MC17569-3, MC17569-4

CAS No.	Surrogate Recoveries	MS	MSD	MC17505-7	Limits
1868-53-7	Dibromofluoromethane	104%	105%	116%	70-130%
2037-26-5	Tolnene-D8	109%	111%	109%	70-130%
460-00-4	4-Bromofluorobenzene	115%	114%	109%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17565-6MS	K66676.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6MSD	K66677.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6	K66672.D	10	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17569-3

CAS No.	Compound	MC17565-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	15.4		500	528	103	538	105	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC17565-6	Limits
1868-53-7	Dibromofluoromethane	101%	100%	105%	70-130%
2037-26-5	Toluene-D8	112%	112%	110%	70-130%
460-00-4	4-Bromofluorobenzene	115%	114%	117%	70-130%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2187-CC2177	Injection Date:	01/21/13
Lab File ID:	K66609.D	Injection Time:	08:26
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	138552	8.81	213045	9.66	100184	12.92	109189	15.48	23867	6.40
Upper Limit [a]	277104	9.31	426090	10.16	200368	13.42	218378	15.98	47734	6.90
Lower Limit [b]	69276	8.31	106523	9.16	50092	12.42	54595	14.98	11934	5.90
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2187-BS	129577	8.81	207635	9.66	101158	12.92	105009	15.48	25696	6.40
MSK2187-BSD	135046	8.82	215591	9.66	104126	12.92	107328	15.48	26749	6.41
MSK2187-MB	127508	8.81	203836	9.66	92799	12.92	95831	15.48	22013	6.40
ZZZZZZ	123427	8.81	195018	9.66	85662	12.92	93106	15.48	15660	6.39
ZZZZZZ	119529	8.82	192962	9.66	88041	12.92	90200	15.48	17867	6.40
ZZZZZZ	119353	8.81	189841	9.66	83127	12.92	89914	15.48	20395	6.40
MC17569-4	118545	8.82	190936	9.66	85279	12.92	92391	15.48	20579	6.40
MC17505-7	118633	8.82	191605	9.67	86501	12.92	91892	15.48	20436	6.41
ZZZZZZ	114272	8.82	186251	9.66	82264	12.92	87542	15.48	18074	6.40
MC17505-7MS	126249	8.82	200989	9.66	96366	12.92	103044	15.48	20213	6.41
MC17505-7MSD	127215	8.82	202101	9.66	97438	12.92	102908	15.48	21565	6.40
ZZZZZZ	131193	8.81	200818	9.66	93322	12.92	98311	15.48	15617	6.40
ZZZZZZ	133103	8.82	208549	9.66	94192	12.92	97177	15.48	20321	6.40
ZZZZZZ	122880	8.81	199289	9.66	88034	12.92	92589	15.48	22466	6.40
MC17569-1	119068	8.82	192468	9.66	86617	12.92	91114	15.48	20912	6.40
MC17569-2	113983	8.82	187028	9.66	84310	12.92	89575	15.48	17333	6.40
MC17569-3	111425	8.82	177914	9.67	82076	12.92	86311	15.48	18445	6.40
ZZZZZZ	105044	8.82	173220	9.66	79449	12.92	83777	15.48	16007	6.40
ZZZZZZ	106168	8.82	172087	9.66	79479	12.92	85545	15.48	16174	6.40
ZZZZZZ	102502	8.82	169711	9.67	77903	12.92	82357	15.48	16554	6.40
ZZZZZZ	98649	8.81	164923	9.66	77009	12.92	81754	15.48	15547	6.40
ZZZZZZ	100543	8.82	168022	9.67	79028	12.92	86422	15.48	15676	6.40
ZZZZZZ	103439	8.81	170761	9.66	79240	12.92	84782	15.48	16998	6.40

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retentiou time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2189-CC2177	Injection Date:	01/22/13
Lab File ID:	K66660.D	Injection Time:	08:35
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	192025	8.81	299925	9.66	136059	12.92	140098	15.48	44542	6.40
Upper Limit [a]	384050	9.31	599850	10.16	272118	13.42	280196	15.98	89084	6.90
Lower Limit [b]	96013	8.31	149963	9.16	68030	12.42	70049	14.98	22271	5.90
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2189-BS	150358	8.81	236966	9.66	114117	12.92	117257	15.48	29691	6.41
MSK2189-MB	139578	8.82	221903	9.66	97414	12.92	108506	15.48	24386	6.41
ZZZZZZ	149439	8.82	233763	9.67	100874	12.92	107991	15.48	22167[c]	6.41
ZZZZZZ	142327	8.82	225796	9.66	96519	12.92	104773	15.48	23303	6.40
ZZZZZZ	133003	8.82	214101	9.66	94188	12.92	99511	15.48	19905[c]	6.40
ZZZZZZ	122772	8.82	200256	9.66	88912	12.92	96025	15.48	26199	6.40
ZZZZZZ	118954	8.81	196001	9.66	88200	12.92	92261	15.48	26932	6.40
ZZZZZZ	135814	8.81	212274	9.66	96886	12.92	100434	15.48	20123[c]	6.40
MC17565-6	129581	8.81	206286	9.66	94152	12.92	100471	15.48	23951	6.40
ZZZZZZ	130749	8.81	206057	9.66	94741	12.92	105099	15.48	19245[c]	6.40
ZZZZZZ	136503	8.82	210247	9.66	94542	12.92	101438	15.48	22151[c]	6.40
ZZZZZZ	133927	8.81	210187	9.66	93874	12.92	97462	15.48	21028[c]	6.40
MC17565-6MS	132546	8.81	208478	9.66	101277	12.92	106375	15.48	20887[c]	6.41
MC17565-6MSD	138334	8.81	217955	9.66	106144	12.92	110222	15.48	25060	6.41
MC17569-3	139672	8.81	223031	9.66	99885	12.92	106600	15.48	21619[c]	6.40
ZZZZZZ	135337	8.81	217915	9.66	96039	12.92	103746	15.48	20255[c]	6.40
ZZZZZZ	131365	8.82	211059	9.66	94054	12.92	100662	15.48	22070[c]	6.40
ZZZZZZ	130664	8.81	210290	9.66	90603	12.92	95688	15.48	22661	6.40
ZZZZZZ	134931	8.81	209046	9.66	99172	12.92	109709	15.48	24029	6.41
ZZZZZZ	138260	8.81	216902	9.66	102499	12.92	110556	15.48	27399	6.41
ZZZZZZ	142978	8.81	213173	9.66	103256	12.92	111844	15.48	28140	6.41
ZZZZZZ	140323	8.81	211007	9.66	98482	12.92	109518	15.48	23169	6.40

IS 1 = Pentafluorobenzeue
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

Volatile Surrogate Recovery Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17569-1	K66627.D	116.0	108.0	113.0
MC17569-2	K66628.D	119.0	107.0	110.0
MC17569-3	K66678.D	109.0	108.0	112.0
MC17569-3	K66629.D	118.0	110.0	111.0
MC17569-4	K66617.D	116.0	108.0	109.0
MC17505-7MS	K66621.D	104.0	109.0	115.0
MC17505-7MSD	K66622.D	105.0	111.0	114.0
MC17565-6MS	K66676.D	101.0	112.0	115.0
MC17565-6MSD	K66677.D	100.0	112.0	114.0
MSK2187-BS	K66610.D	102.0	112.0	115.0
MSK2187-BSD	K66611.D	102.0	111.0	116.0
MSK2187-MB	K66613.D	112.0	110.0	114.0
MSK2189-BS	K66661.D	100.0	113.0	117.0
MSK2189-MB	K66664.D	108.0	107.0	111.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-MB	F61170.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ng/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ng/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ng/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-MB	F61170.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	34%	15-110%
4165-62-2	Phenol-d5	22%	15-110%
118-79-6	2,4,6-Tribromophenol	64%	15-110%
4165-60-0	Nitrobenzene-d5	54%	30-130%
321-60-8	2-Fluorobiphenyl	56%	30-130%
1718-51-0	Terphenyl-d14	70%	30-130%

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

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31719-MB	U11795.D	1	01/18/13	NS	01/17/13	OP31719	MSU614

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	56%	30-130%
321-60-8	2-Fluorobiphenyl	60%	30-130%
1718-51-0	Terphenyl-d14	68%	30-130%

Blank Spike Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-BS	F61171.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	27.0	27* a	30-130
95-57-8	2-Chlorophenol	100	50.3	50	30-130
59-50-7	4-Chloro-3-methyl phenol	100	60.1	60	30-130
120-83-2	2,4-Dichlorophenol	100	59.4	59	30-130
105-67-9	2,4-Dimethylphenol	100	40.9	41	30-130
51-28-5	2,4-Dinitrophenol	100	65.1	65	30-130
534-52-1	4,6-Dinitro-o-cresol	100	76.0	76	30-130
95-48-7	2-Methylphenol	100	44.7	45	30-130
	3&4-Methylphenol	200	84.1	42	30-130
88-75-5	2-Nitrophenol	100	60.2	60	30-130
100-02-7	4-Nitrophenol	100	33.4	33	30-130
87-86-5	Pentachlorophenol	100	77.0	77	30-130
108-95-2	Phenol	100	23.4	23* a	30-130
95-95-4	2,4,5-Trichlorophenol	100	68.9	69	30-130
88-06-2	2,4,6-Trichlorophenol	100	69.2	69	30-130
62-53-3	Aniline	50	14.3	29* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	34.6	69	40-140
85-68-7	Butyl benzyl phthalate	50	22.7	45	40-140
100-51-6	Benzyl Alcohol	50	25.0	50	40-140
91-58-7	2-Chloronaphthalene	50	30.4	61	40-140
106-47-8	4-Chloroaniline	50	23.5	47	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	24.7	49	40-140
111-44-4	bis(2-Chloroethyl)ether	50	25.0	50	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	29.1	58	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	34.0	68	40-140
122-66-7	1,2-Diphenylhydrazine	50	31.8	64	40-140
121-14-2	2,4-Dinitrotoluene	50	35.7	71	40-140
606-20-2	2,6-Dinitrotoluene	50	33.0	66	40-140
91-94-1	3,3'-Dichlorobenzidine	50	38.9	78	40-140
132-64-9	Dibenzofuran	50	30.8	62	40-140
84-74-2	Di-n-butyl phthalate	50	28.8	58	40-140
117-84-0	Di-n-octyl phthalate	50	37.3	75	40-140
84-66-2	Diethyl phthalate	50	21.2	42	40-140
131-11-3	Dimethyl phthalate	50	6.3	13* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	35.8	72	40-140
118-74-1	Hexachlorobenzene	50	35.9	72	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-BS	F61171.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	13.7	27* a	40-140
67-72-1	Hexachloroethane	50	22.4	45	40-140
78-59-1	Isophorone	50	29.4	59	40-140
88-74-4	2-Nitroaniline	50	32.3	65	40-140
99-09-2	3-Nitroaniline	50	29.4	59	40-140
100-01-6	4-Nitroaniline	50	32.7	65	40-140
98-95-3	Nitrobenzene	50	26.3	53	40-140
62-75-9	n-Nitrosodimethylamine	50	17.1	34* a	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	28.3	57	40-140
86-30-6	N-Nitrosodiphenylamine	50	33.3	67	40-140
110-86-1	Pyridine	50	11.1	22* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	33%	15-110%
4165-62-2	Phenol-d5	23%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	15-110%
4165-60-0	Nitrobenzene-d5	53%	30-130%
321-60-8	2-Fluorobiphenyl	59%	30-130%
1718-51-0	Terphenyl-d14	73%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31719-BS	U11796.D	1	01/18/13	NS	01/17/13	OP31719	MSU614

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	33.2	66	40-140
208-96-8	Acenaphthylene	50	24.4	49	40-140
120-12-7	Anthracene	50	35.0	70	40-140
56-55-3	Benzo(a)anthracene	50	37.6	75	40-140
50-32-8	Benzo(a)pyrene	50	34.5	69	40-140
205-99-2	Benzo(b)fluoranthene	50	36.1	72	40-140
191-24-2	Benzo(g,h,i)perylene	50	36.6	73	40-140
207-08-9	Benzo(k)fluoranthene	50	37.3	75	40-140
218-01-9	Chrysene	50	37.0	74	40-140
53-70-3	Dibenzo(a,h)anthracene	50	36.5	73	40-140
206-44-0	Fluoranthene	50	36.2	72	40-140
86-73-7	Fluorene	50	34.2	68	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.6	71	40-140
90-12-0	1-Methylnaphthalene	50	31.7	63	40-140
91-57-6	2-Methylnaphthalene	50	29.6	59	40-140
85-01-8	Phenanthrene	50	36.3	73	40-140
129-00-0	Pyrene	50	37.2	74	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	54%	30-130%
321-60-8	2-Fluorobiphenyl	62%	30-130%
1718-51-0	Terphenyl-d14	74%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-MS	F61172.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
OP31718-MSD	F61173.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
MC17600-1	F61174.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	MC17600-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	27.3	27* [a]	31.9	29* [a]	16	30-130/20
95-57-8	2-Chlorophenol	ND		100	39.3	39	61.0	56	43* [b]	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	42.7	43	63.1	57	39* [b]	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	48.6	49	67.0	61	32* [b]	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	16.6	17* [a]	40.6	37	84* [b]	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	74.5	75	74.6	68	0	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	77.2	77	83.6	76	8	30-130/20
95-48-7	2-Methylphenol	ND		100	26.8	27* [a]	50.6	46	61* [b]	30-130/20
	3&4-Methylphenol	ND		200	52.7	26* [a]	96.0	44	58* [b]	30-130/20
88-75-5	2-Nitrophenol	ND		100	50.5	51	67.9	62	29* [b]	30-130/20
100-02-7	4-Nitrophenol	ND		100	34.0	34	37.3	34	9	30-130/20
87-86-5	Pentachlorophenol	ND		100	48.0	48	56.5	51	16	30-130/20
108-95-2	Phenol	ND		100	17.5	18* [a]	28.1	26* [a]	46* [b]	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	62.0	62	74.1	67	18	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	54.4	54	71.9	65	28* [b]	30-130/20
62-53-3	Aniline	ND		50	12.7	25* [a]	17.3	31* [a]	31* [b]	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	33.3	67	37.6	68	12	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	19.5	39* [a]	21.2	39* [a]	8	40-140/20
100-51-6	Benzyl Alcohol	ND		50	22.5	45	33.4	61	39* [b]	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	26.9	54	34.9	64	26* [b]	40-140/20
106-47-8	4-Chloroaniline	ND		50	21.4	43	25.2	46	16	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	21.1	42	30.1	55	35* [b]	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	20.4	41	32.8	60	47* [b]	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	23.5	47	36.7	67	44* [b]	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	31.8	64	36.6	67	14	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	30.8	62	34.8	63	12	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	34.9	70	39.0	71	11	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	32.1	64	35.8	65	11	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	35.2	70	37.1	68	5	40-140/20
132-64-9	Dibenzofuran	ND		50	28.3	57	34.0	62	18	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	25.7	51	28.3	52	10	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	35.5	71	37.6	68	6	40-140/20
84-66-2	Diethyl phthalate	ND		50	14.0	28* [a]	15.8	29* [a]	12	40-140/20
131-11-3	Dimethyl phthalate	ND		50	1.9	4* [a]	2.8	5* [a]	38* [b]	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	0.51	J	50	35.1	69	36.4	65	4	40-140/20
118-74-1	Hexachlorobenzene	ND		50	35.0	70	39.6	72	12	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31718-MS	F61172.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
OP31718-MSD	F61173.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870
MC17600-1	F61174.D	1	01/18/13	KR	01/17/13	OP31718	MSF2870

The QC reported here applies to the following samples: Method: SW846 8270C

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	MC17600-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	15.2	30* [a]	18.4	33* [a]	19	40-140/20
67-72-1	Hexachloroethane	ND		50	17.5	35* [a]	26.4	48	41* [b]	40-140/20
78-59-1	Isophorone	ND		50	26.5	53	35.0	64	28* [b]	40-140/20
88-74-4	2-Nitroaniline	ND		50	32.0	64	36.7	67	14	40-140/20
99-09-2	3-Nitroaniline	ND		50	27.1	54	29.3	53	8	40-140/20
100-01-6	4-Nitroaniline	ND		50	28.8	58	36.4	66	23* [b]	40-140/20
98-95-3	Nitrobenzene	ND		50	21.7	43	32.6	59	40* [b]	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	14.1	28* [a]	22.0	40	44* [b]	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	24.7	49	35.2	64	35* [b]	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	32.8	66	37.0	67	12	40-140/20
110-86-1	Pyridine	ND		50	10.6	21* [a]	16.1	29* [a]	41* [b]	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17600-1	Limits
367-12-4	2-Fluorophenol	24%	38%	29%	15-110%
4165-62-2	Phenol-d5	17%	26%	19%	15-110%
118-79-6	2,4,6-Tribromophenol	53%	68%	62%	15-110%
4165-60-0	Nitrobenzene-d5	44%	60%	57%	30-130%
321-60-8	2-Fluorobiphenyl	51%	61%	58%	30-130%
1718-51-0	Terphenyl-d14	66%	67%	60%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD dne to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31719-MS	U11797.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
OP31719-MSD	U11798.D	1	01/18/13	NS	01/17/13	OP31719	MSU614
MC17556-16	U11808.D	1	01/18/13	NS	01/17/13	OP31719	MSU614

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17569-1, MC17569-2, MC17569-3

CAS No.	Compound	MC17556-16 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	31.1	62	37.3	68	18	40-140/20
208-96-8	Acenaphthylene	ND		50	22.8	46	27.6	50	19	40-140/20
120-12-7	Anthracene	ND		50	33.9	68	38.1	69	12	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	36.7	73	40.9	74	11	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	33.8	68	37.0	67	9	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	34.4	69	38.5	70	11	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	35.0	70	37.5	68	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	37.6	75	40.3	73	7	40-140/20
218-01-9	Chrysene	ND		50	36.2	72	40.1	73	10	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	35.0	70	37.5	68	7	40-140/20
206-44-0	Fluoranthene	ND		50	36.3	73	40.6	74	11	40-140/20
86-73-7	Fluorene	ND		50	34.1	68	37.6	68	10	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	34.1	68	37.2	68	9	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	28.2	56	37.2	68	28* [a]	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	25.7	51	34.8	63	30* [a]	40-140/20
85-01-8	Phenanthrene	ND		50	35.6	71	40.4	74	13	40-140/20
129-00-0	Pyrene	ND		50	36.6	73	40.2	73	9	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17556-16	Limits
4165-60-0	Nitrobenzene-d5	45%	61%	57%	30-130%
321-60-8	2-Fluorobiphenyl	55%	64%	64%	30-130%
1718-51-0	Terphenyl-d14	66%	70%	62%	30-130%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2871-CC2858	Injection Date:	01/18/13
Lab File ID:	F61166.D	Injection Time:	08:15
Instrument ID:	GCMSF	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	139829	3.96	412223	4.94	269667	6.37	517124	7.71	482695	10.47	751194	11.93
Upper Limit [a]	279658	4.46	824446	5.44	539334	6.87	1034248	8.21	965390	10.97	1502388	12.43
Lower Limit [b]	69915	3.46	206112	4.44	134834	5.87	258562	7.21	241348	9.97	375597	11.43
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	157131	3.96	467575	4.94	306615	6.37	593535	7.71	573480	10.47	908765	11.93
ZZZZZZ	151462	3.96	450020	4.94	299896	6.37	576224	7.71	587435	10.47	921027	11.93
OP31718-MB	138063	3.96	473688	4.94	329960	6.36	617522	7.70	724811	10.47	712857	11.93
OP31718-BS	121941	3.96	412323	4.94	282357	6.36	547216	7.71	659242	10.48	626649	11.93
OP31718-MS	126438	3.96	431548	4.95	301348	6.37	572025	7.71	680366	10.47	660169	11.93
OP31718-MSD	120820	3.96	425256	4.94	299052	6.36	571582	7.70	712624	10.48	683983	11.93
MC17600-1	118811	3.96	417133	4.94	289320	6.36	548271	7.70	667975	10.47	658044	11.93
ZZZZZZ	131795	3.96	450739	4.94	306794	6.36	571168	7.70	695168	10.47	678401	11.93
MC17569-1	119791	3.96	412661	4.94	290774	6.36	552705	7.71	673671	10.47	645033	11.92
MC17569-2	131164	3.96	454368	4.94	314348	6.36	595414	7.71	721890	10.47	719057	11.92
MC17569-3	118051	3.96	420586	4.94	285745	6.36	528360	7.70	638781	10.47	632461	11.93
ZZZZZZ	133389	3.96	451147	4.94	302772	6.36	567349	7.70	657411	10.47	650511	11.93
ZZZZZZ	125391	3.96	427049	4.94	294620	6.36	560551	7.70	700160	10.47	692832	11.93
ZZZZZZ	126867	3.96	425438	4.94	290503	6.36	540615	7.70	666940	10.48	665787	11.94
ZZZZZZ	126225	3.96	431282	4.94	297132	6.36	543517	7.71	638583	10.47	614562	11.93
ZZZZZZ	115470	3.96	397609	4.94	278551	6.36	542413	7.70	663957	10.47	648708	11.93
ZZZZZZ	118070	3.96	400602	4.94	276752	6.36	532763	7.70	667986	10.47	645560	11.93
ZZZZZZ	113730	3.96	397421	4.95	288696	6.36	559867	7.71	711730	10.47	709553	11.93
ZZZZZZ	108792	3.96	371500	4.94	262848	6.36	507954	7.70	645907	10.47	620950	11.93
ZZZZZZ	115987	3.96	404733	4.94	282528	6.36	559817	7.70	684067	10.47	665560	11.93
ZZZZZZ	115148	3.96	397975	4.94	279758	6.36	536647	7.70	664892	10.47	646858	11.93
ZZZZZZ	109311	3.96	381459	4.94	269902	6.36	530095	7.70	647379	10.47	653464	11.93
ZZZZZZ	107676	3.96	368914	4.94	258163	6.36	485024	7.71	586443	10.47	627682	11.93
ZZZZZZ	106852	3.96	365677	4.94	254204	6.36	478726	7.70	580432	10.48	619228	11.93
ZZZZZZ	100793	3.96	353320	4.94	246255	6.36	476277	7.70	568986	10.47	586674	11.93
ZZZZZZ	100935	3.96	353412	4.94	248490	6.36	477818	7.70	602477	10.48	621575	11.94
ZZZZZZ	106567	3.96	370492	4.94	256107	6.37	478120	7.71	562252	10.48	606768	11.93
ZZZZZZ	98799	3.96	339979	4.94	230531	6.36	446759	7.71	622395	10.49	697037	11.97

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2871-CC2858	Injection Date:	01/18/13
Lab File ID:	F61166.D	Injection Time:	08:15
Instrument ID:	GCMSF	Method:	SW846 8270C

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		1S 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std: MSU614-CC609 Injection Date: 01/18/13
Lab File ID: U11794.D Injection Time: 12:22
Instrument ID: GCMSU Method: SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	144655	3.38	359367	4.35	188700	5.76	319699	7.01	217751	9.78	426304	11.18
Upper Limit [a]	289310	3.88	718734	4.85	377400	6.26	639398	7.51	435502	10.28	852608	11.68
Lower Limit [b]	72328	2.88	179684	3.85	94350	5.26	159850	6.51	108876	9.28	213152	10.68
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31719-MB	164173	3.38	411645	4.34	213775	5.76	359865	7.01	260197	9.78	508474	11.18
OP31719-BS	157909	3.38	390734	4.35	202039	5.76	349515	7.01	237825	9.78	487903	11.18
OP31719-MS	170066	3.38	425986	4.35	219742	5.76	385773	7.01	263927	9.78	541878	11.19
OP31719-MSD	167098	3.38	417594	4.35	216804	5.76	374901	7.01	259983	9.78	522493	11.18
ZZZZZZ	185710	3.38	459015	4.34	242054	5.76	414518	7.01	295731	9.78	590564	11.19
ZZZZZZ	180003	3.38	442527	4.34	230879	5.76	394338	7.01	286616	9.78	565850	11.18
ZZZZZZ	164836	3.38	404327	4.34	214034	5.76	365093	7.01	264153	9.78	512121	11.18
ZZZZZZ	181773	3.38	444725	4.34	229329	5.76	394308	7.01	289846	9.78	568575	11.18
ZZZZZZ	187459	3.38	458808	4.34	240279	5.76	404433	7.01	293346	9.78	578655	11.18
ZZZZZZ	169880	3.38	430073	4.34	217577	5.76	371868	7.01	273359	9.78	535700	11.19
MC17569-1	161560	3.38	409660	4.34	209483	5.76	368831	7.01	269039	9.78	527112	11.18
MC17569-2	173801	3.38	441075	4.34	225382	5.76	395039	7.01	290656	9.78	562543	11.19
MC17569-3	162849	3.38	405529	4.35	206121	5.76	362311	7.01	265751	9.78	513190	11.18
MC17556-16	160608	3.38	412807	4.34	211437	5.76	366606	7.01	265416	9.78	514628	11.18
ZZZZZZ	141383	3.38	351262	4.34	183239	5.76	307577	7.01	221918	9.78	434356	11.18
ZZZZZZ	129404	3.38	316046	4.34	157686	5.76	286345	7.01	209640	9.78	408298	11.18
OP31724-MB	159330	3.38	399528	4.34	208290	5.76	354436	7.01	250431	9.77	493681	11.18
ZZZZZZ	142358	3.38	355708	4.34	183963	5.76	309524	7.01	222378	9.77	429605	11.18
ZZZZZZ	152711	3.38	384094	4.34	197443	5.76	335422	7.01	243921	9.77	472965	11.18
ZZZZZZ	148501	3.38	367918	4.34	192006	5.76	326853	7.01	234332	9.77	450534	11.18
ZZZZZZ	138261	3.38	344678	4.34	180271	5.76	303980	7.01	217128	9.77	420434	11.18
ZZZZZZ	143739	3.38	360990	4.34	186068	5.76	317821	7.01	226692	9.77	440510	11.18
ZZZZZZ	164870	3.38	405433	4.34	210366	5.76	356208	7.01	257144	9.77	497857	11.18
ZZZZZZ	153488	3.38	372822	4.34	194265	5.76	327022	7.01	239491	9.77	463589	11.18
ZZZZZZ	154101	3.38	380191	4.34	198072	5.76	334996	7.01	238180	9.77	463887	11.18
ZZZZZZ	149404	3.38	377771	4.34	191874	5.76	324523	7.01	234865	9.77	455086	11.18
ZZZZZZ	149262	3.38	371695	4.34	188418	5.76	320170	7.01	232154	9.77	445828	11.18
ZZZZZZ	146708	3.38	366800	4.34	186248	5.76	319077	7.01	226416	9.77	437405	11.18
ZZZZZZ	146753	3.38	366805	4.34	189637	5.76	318063	7.01	226804	9.78	438460	11.18
ZZZZZZ	149691	3.38	373670	4.34	191201	5.76	321824	7.01	232126	9.77	444009	11.18
ZZZZZZ	147550	3.38	364744	4.34	187311	5.76	320257	7.01	227218	9.77	438713	11.18
ZZZZZZ	151503	3.38	373089	4.34	194589	5.76	329075	7.01	232718	9.77	442556	11.18
ZZZZZZ	145288	3.38	361803	4.34	189630	5.76	320493	7.01	228163	9.77	435078	11.18

IS 1 = 1,4-Dichlorobenzene-d4

Semivolatile Internal Standard Area Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU614-CC609	Injection Date:	01/18/13
Lab File ID:	U11794.D	Injection Time:	12:22
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17569-1	F61176.D	37.0	28.0	70.0	63.0	63.0	58.0
MC17569-2	F61177.D	35.0	25.0	69.0	56.0	59.0	57.0
MC17569-3	F61178.D	36.0	26.0	66.0	53.0	56.0	57.0
OP31718-BS	F61171.D	33.0	23.0	72.0	53.0	59.0	73.0
OP31718-MB	F61170.D	34.0	22.0	64.0	54.0	56.0	70.0
OP31718-MS	F61172.D	24.0	17.0	53.0	44.0	51.0	66.0
OP31718-MSD	F61173.D	38.0	26.0	68.0	60.0	61.0	67.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17569-1	U11805.D	61.0	67.0	61.0
MC17569-2	U11806.D	56.0	64.0	59.0
MC17569-3	U11807.D	55.0	61.0	60.0
OP31719-BS	U11796.D	54.0	62.0	74.0
OP31719-MB	U11795.D	56.0	60.0	68.0
OP31719-MS	U11797.D	45.0	55.0	66.0
OP31719-MSD	U11798.D	61.0	64.0	70.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

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QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Dnplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-MB	YZ77994.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17569-1, MC17569-2, MC17569-3, MC17569-5

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	128%	36-173%
460-00-4	Bromofluorobenzene (S)	117%	36-173%

Blank Spike Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-BS	YZ77995.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17569-1, MC17569-2, MC17569-3, MC17569-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.071	100	60-140
106-93-4	1,2-Dibromoethane	0.071	0.076	107	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	134%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-MS	YZ77996.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
OP31739-MSD	YZ77997.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
MC17700-2	YZ77998.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17569-1, MC17569-2, MC17569-3, MC17569-5

CAS No.	Compound	MC17700-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.073	103	0.077	108	5	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.078	110	0.085	120	9	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17700-2	Limits
460-00-4	Bromofluorobenzene (S)	127%	135%	137%	36-173%
460-00-4	Bromofluorobenzene (S)	113%	124%	124%	36-173%

8.3.1

8

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17569-1	YZ78001.D	127.0	112.0
MC17569-2	YZ78002.D	132.0	113.0
MC17569-3	YZ78003.D	108.0	104.0
MC17569-5	YZ78005.D	135.0	117.0
OP31739-BS	YZ77995.D	134.0	121.0
OP31739-MB	YZ77994.D	128.0	117.0
OP31739-MS	YZ77996.D	127.0	113.0
OP31739-MSD	YZ77997.D	135.0	124.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL

Check Std:	GYZ7023-CC7022	Injection Date:	01/22/13
Lab File ID:	YZ77993A.D	Injection Time:	02:49
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31739-MB	YZ77994.D	01/22/13	03:14	3.48	3.76
OP31739-BS	YZ77995.D	01/22/13	03:40	3.48	3.76
OP31739-MS	YZ77996.D	01/22/13	04:05	3.48	3.76
OP31739-MSD	YZ77997.D	01/22/13	04:31	3.48	3.76
MC17700-2	YZ77998.D	01/22/13	04:55	3.48	3.76
ZZZZZZ	YZ77999.D	01/22/13	05:21	3.48	3.76
ZZZZZZ	YZ78000.D	01/22/13	05:46	3.48	3.76
MC17569-1	YZ78001.D	01/22/13	06:11	3.48	3.76
MC17569-2	YZ78002.D	01/22/13	06:36	3.48	3.76
MC17569-3	YZ78003.D	01/22/13	07:02	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17569
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7023-CC7022	Injection Date:	01/22/13
Lab File ID:	YZ78004.D	Injection Time:	07:27
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	SI [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC17569-5	YZ78005.D	01/22/13	07:52	3.48	3.76
ZZZZZZ	YZ78006.D	01/22/13	08:18	3.48	3.76
ZZZZZZ	YZ78007.D	01/22/13	08:43	3.48	3.76
ZZZZZZ	YZ78008.D	01/22/13	09:08	3.48	3.76
ZZZZZZ	YZ78009.D	01/22/13	09:34	3.48	3.76
ZZZZZZ	YZ78010.D	01/22/13	09:58	3.48	3.76
ZZZZZZ	YZ78011.D	01/22/13	10:23	3.48	3.76
ZZZZZZ	YZ78012.D	01/22/13	10:48	3.48	3.76
ZZZZZZ	YZ78013.D	01/22/13	11:14	3.48	3.76
GYZ7023-ECC702Y	YZ78014.D	01/22/13	11:39	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17633

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/19/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW6B-ROX-011713	MW6B-ROX-011713-EB
MW6C-ROX-011713	MW6D-ROX-011713
TB-011713-HCL-R	TB-011713-ST-R
P56-ROX-011713	P74-ROX-011713
TB-011713-HCL-W	TB-011713-ST-W

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. VOC MS/MSD recoveries were outside evaluation criteria in sample MW6B-ROX-011713. Internal standard area recoveries for tert butyl alcohol-d_9 in samples MW6C-ROX-011713, MW6D-011713, MW6B-ROX-011713-EB, and TB-011713-HCL-W were outside criteria. Samples P56-ROX-011713 and P74-ROX-011713 were diluted due to high levels of VOC target analytes. Additionally, the continuing calibration verification for acrolein exceeded 50 percent difference (%D). These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated the cooler was received by the laboratory at a temperature of 0.6ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSK2189-BS	VOCs	2-Chloroethyl vinyl ether	**33**	NA	70-130
MSM1824-BS/BSD	VOCs	Acetone	**133**/129	3	70-130/25
MSM1824-BS/BSD	VOCs	Acrolein	76/**65**	16	70-130/25
MSM1824-BS/BSD	VOCs	Acrylonitrile	125/**147**	16	70-130/25
MSM1824-BS/BSD	VOCs	2-Butanone (MEK)	116/**138**	18	70-130/25
MSM1824-BS/BSD	VOCs	1,4-Dioxane	**135/133**	2	70-130/25
MSM1824-BS/BSD	VOCs	2-Hexanone	129/**132**	3	70-130/25
MSM1824-BS/BSD	VOCs	4-Methyl-2-pentanone (MIBK)	**142/144**	1	70-130/25
MSM1824-BS/BSD	VOCs	Vinyl acetate	**147/139**	6	70-130/25
OP31743-BS	SVOCs	Aniline	**39**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS MSK2189-BS and OP31743-BS were associated with trip/equipment blank quality control samples and are not qualified.

Sample ID	Parameter	Analyte	Qualification
MW6C-ROX-011713	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW6D-ROX-011713	VOCs	2-Chloroethyl vinyl ether	**UJ**
P56-ROX-011713	VOCs	2-Chloroethyl vinyl ether	**UJ**
P74-ROX-011713	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW6B-ROX-011713	VOCs	Acrolein	**UJ**
MW6B-ROX-011713	SVOCs	Aniline	**UJ**
MW6C-ROX-011713	SVOCs	Aniline	**UJ**
MW6D-ROX-011713	SVOCs	Aniline	**UJ**
P56-ROX-011713	SVOCs	Aniline	**UJ**
P74-ROX-011713	SVOCs	Aniline	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although not requested, sample MW6B-ROX-011713 was spiked and analyzed for VOCs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW6B-ROX-011713	VOCs	Acrolein	128/**133**	4	70-130/30
MW6B-ROX-011713	VOCs	Acrylonitrile	**135**/126	7	70-130/30
MW6B-ROX-011713	VOCs	2-Butanone (MEK)	111/**138**	22	70-130/30
MW6B-ROX-011713	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	70-130/30
MW6B-ROX-011713	VOCs	Hexachlorobutadiene	72/**69**	4	70-130/30
MW6B-ROX-011713	VOCs	Methyl tert butyl ether	120/**133**	10	70-130/30
MW6B-ROX-011713	VOCs	4-Methyl-2-pentanone (MIBK)	**135**/130	4	70-130/30
MW6B-ROX-011713	VOCs	Vinyl acetate	122/**159**	26	70-130/30

Analytical results reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a high bias, did not require qualification. USEPA National Functional Guidelines for Organic Data Review indicates that organic data does not require qualification based on MS/MSD data alone. LCS/LCSD recoveries were within evaluation criteria with the exception of compounds listed and qualified as appropriate in Section 5.0 of this data review. No further qualification of data was required.

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	IS Criteria
TB-011713-HCL-W	VOCs	Tert butyl alcohol-d_9	**22167**	22271-89084
MW6B-ROX-011713-EB	VOCs	Tert butyl alcohol-d_9	**19905**	22271-89084
MW6C-ROX-011713	VOCs	Tert butyl alcohol-d_9	**20255**	22271-89084
MW6D-ROX-011713	VOCs	Tert butyl alcohol-d_9	**22070**	22271-89084

Analytical data that required qualification based on internal standard data are included in the table below. Trip blank TB-011713-HCL-W and equipment blank MW6B-ROX-011713-EB are quality control samples and are not qualified.

Field ID	Parameter	Analyte	Qualification
MW6C-ROX-011713	VOCs	All non-detects	**UJ**
MW6C-ROX-011713	VOCs	Methyl tert butyl ether	**J**
MW6D-ROX-011713	VOCs	All non-detects	**UJ**

Field ID	Parameter	Analyte	Qualification
MW6D-ROX-011713	VOCs	Benzene	**J**

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification recovery for acrolein exceeded 50 percent difference (%D); analytes in associated samples were qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P56-ROX-011713	VOCs	Acrolein	**UJ**
P74-ROX-011713	VOCs	Acrolein	**UJ**

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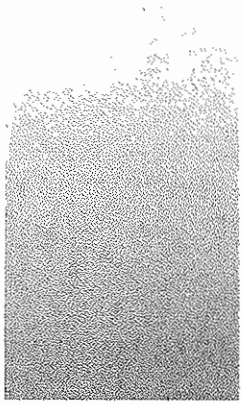
02/01/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17633

Sampling Date: 01/17/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **109**

Reviewed on 4/9/2013

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.

Reza Pand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **8**
4.1: MC17633-1: MW6B-ROX-011713 9
4.2: MC17633-2: MW6B-ROX-011713-EB 16
4.3: MC17633-3: MW6C-ROX-011713 23
4.4: MC17633-4: MW6D-ROX-011713 30
4.5: MC17633-5: TB-011713-HCL-R 37
4.6: MC17633-6: TB-011713-ST-R 40
4.7: MC17633-7: P56-ROX-011713 41
4.8: MC17633-8: P74-ROX-011713 48
4.9: MC17633-9: TB-011713-HCL-W 55
4.10: MC17633-10: TB-011713-ST-W 58
Section 5: Misc. Forms **59**
5.1: Chain of Custody 60
5.2: Sample Tracking Chronicle 62
5.3: Internal Chain of Custody 64
Section 6: GC/MS Volatiles - QC Data Summaries **66**
6.1: Method Blank Summary 67
6.2: Blank Spike Summary 73
6.3: Blank Spike/Blank Spike Duplicate Summary 76
6.4: Matrix Spike/Matrix Spike Duplicate Summary 79
6.5: Internal Standard Area Summaries 85
6.6: Surrogate Recovery Summaries 87
Section 7: GC/MS Semi-volatiles - QC Data Summaries **88**
7.1: Method Blank Summary 89
7.2: Blank Spike Summary 92
7.3: Matrix Spike/Matrix Spike Duplicate Summary 95
7.4: Internal Standard Area Summaries 98
7.5: Surrogate Recovery Summaries 101
Section 8: GC Volatiles - QC Data Summaries **103**
8.1: Method Blank Summary 104
8.2: Blank Spike Summary 105
8.3: Matrix Spike/Matrix Spike Duplicate Summary 106
8.4: Surrogate Recovery Summaries 107
8.5: GC Surrogate Retention Time Summaries 108

Sample Summary

Shell Oil

Job No: MC17633

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17633-1	01/17/13	11:25	LRBH	01/18/13	AQ	Ground Water	MW6B-ROX-011713
MC17633-2	01/17/13	11:45	LRBH	01/18/13	AQ	Equipment Blank	MW6B-ROX-011713-EB
MC17633-3	01/17/13	13:35	LRBH	01/18/13	AQ	Ground Water	MW6C-ROX-011713
MC17633-4	01/17/13	14:35	LRBH	01/18/13	AQ	Ground Water	MW6D-ROX-011713
MC17633-5	01/17/13	00:00	LRBH	01/18/13	AQ	Trip Blank Water	TB-011713-HCL-R
MC17633-6	01/17/13	00:00	LRBH	01/18/13	AQ	Trip Blank Water	TB-011713-ST-R
MC17633-7	01/17/13	12:25	LRBH	01/18/13	AQ	Ground Water	P56-ROX-011713
MC17633-8	01/17/13	15:59	LRBH	01/18/13	AQ	Ground Water	P74-ROX-011713
MC17633-9	01/17/13	00:00	LRBH	01/18/13	AQ	Trip Blank Water	TB-011713-HCL-W
MC17633-10	01/17/13	00:00	LRBH	01/18/13	AQ	Trip Blank Water	TB-011713-ST-W

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC17633
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	Report Date	1/31/2013 2:17:09 PM

6 Sample(s), 4 Trip Blank(s) were collected on 01/17/2013 and were received at Accutest on 01/18/2013 properly preserved, at 0.6 Deg. C and intact. These Samples received an Accutest job number of MC17633. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ	Batch ID: MSK2189

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17565-6MS, MC17565-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,4-Dioxane, 2-Chloroethyl vinyl ether, Acrolein, Acrylonitrile, Bromoform, Dichlorodifluoromethane, o-Chlorotoluene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Acrolein, Acrylonitrile, Dichlorodifluoromethane, o-Chlorotoluene, 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MS/MSD Recovery(s) for 1,2,4-Trimethylbenzene, , Ethylbenzene, m,p-Xylene, Xylene (total) are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- RPD(s) for MSD for 1,4-Dioxane, 2-Chloroethyl vinyl ether are outside control limits for sample MC17565-6MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Continuing calibration check standard MSK2189-CC2177 for acrolein exceeds 50% Difference (response bias high). Associated sample is non-detect for this compound.

Matrix AQ	Batch ID: MSM1824

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17633-1MS, MC17633-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,4-Dioxane, Acetone, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplicate Recovery(s) for Acrolein, 2-Butanone (MEK), 1,4-Dioxane, 2-Hexanone, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone (MIBK), Acrylonitrile are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, Acrolein, Hexachlorobutadiene, Methyl Tert Butyl Ether, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSM1824-BS for 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.
- MSM1824-BSD for Acrylonitrile, 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.
- MC17633-2,3,4,9, MC17565-6MS for Tert Butyl Alcohol-D9: Outside control limits. Target analytes not associated with this internal standard.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP31743

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17700-4MS, MC17700-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS/MS/MSD Recovery(s) for Aniline are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Hexachlorocyclopentadiene, Phenol, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Hexachlorocyclopentadiene, n-Nitrosodimethylamine, Pyridine, Phenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2-Chlorophenol, 2-Methylphenol, 3&4-Methylphenol, 4-Chloro-3-methyl phenol, Benzoic Acid, Benzyl Alcohol, bis(2-Chloroethoxy)methane, Isophorone, Phenol are outside control limits for sample OP31743-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31744

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17700-5MS, MC17700-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31739

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17700-2MS, MC17700-2MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17633).

Summary of Hits

Job Number: MC17633
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL
Collected: 01/17/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17633-1	MW6B-ROX-011713					
Methyl Tert Butyl Ether		16.6	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		2.6 J	5.0	0.55	ug/l	SW846 8270C
MC17633-2	MW6B-ROX-011713-EB					
No hits reported in this sample.						
MC17633-3	MW6C-ROX-011713					
Methyl Tert Butyl Ether		1.2	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		2.2 J	5.0	0.55	ug/l	SW846 8270C
MC17633-4	MW6D-ROX-011713					
Benzene		0.53	0.50	0.24	ug/l	SW846 8260B
MC17633-5	TB-011713-HCL-R					
No hits reported in this sample.						
MC17633-6	TB-011713-ST-R					
No hits reported in this sample.						
MC17633-7	P56-ROX-011713					
Benzene		191	2.5	1.2	ug/l	SW846 8260B
n-Butylbenzene		3.1 J	25	3.0	ug/l	SW846 8260B
Ethylbenzene		8.8	5.0	2.5	ug/l	SW846 8260B
Isopropylbenzene		39.8	25	2.5	ug/l	SW846 8260B
Naphthalene		32.2	25	2.5	ug/l	SW846 8260B
n-Propylbenzene		45.6	25	2.9	ug/l	SW846 8260B
Toluene		11.9	5.0	2.5	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		17.2 J	25	1.7	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		9.2 J	25	2.3	ug/l	SW846 8260B
m,p-Xylene		74.5	5.0	3.7	ug/l	SW846 8260B
Xylene (total)		74.5	5.0	2.9	ng/l	SW846 8260B
Phenol		1.4 J	5.0	1.0	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		4.4	2.0	0.46	ug/l	SW846 8270C
Acenaphthene		0.39	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.083 J	0.10	0.013	ug/l	SW846 8270C BY SIM
Anthracene		0.10	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluorene		0.32	0.10	0.046	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC17633
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/17/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
1-Methylnaphthalene		14.7	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		13.1	0.20	0.052	ug/l	SW846 8270C BY SIM
Phenanthrene		1.2	0.050	0.013	ug/l	SW846 8270C BY SIM
MC17633-8	P74-ROX-011713					
Benzene		4990	10	4.8	ug/l	SW846 8260B
n-Butylbenzene		14.3 J	100	12	ug/l	SW846 8260B
Ethylbenzene		99.7	20	10	ug/l	SW846 8260B
Naphthalene		141	100	10	ug/l	SW846 8260B
Toluene		278	20	10	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		249	100	6.9	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		97.3 J	100	9.3	ug/l	SW846 8260B
m,p-Xylene		547	20	15	ug/l	SW846 8260B
Xylene (total)		555	20	12	ug/l	SW846 8260B
2,4-Dimethylphenol		2.1 J	10	1.6	ug/l	SW846 8270C
3&4-Methylphenol		1.0 J	10	1.0	ug/l	SW846 8270C
Phenol		29.8	5.1	1.0	ug/l	SW846 8270C
Benzyl Alcohol		2.8 J	10	1.8	ug/l	SW846 8270C
Acenaphthene		0.19	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.10	0.10	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.063 J	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluoranthene		0.038 J	0.10	0.033	ug/l	SW846 8270C BY SIM
Fluorene		0.38	0.10	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		15.6	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		19.8	0.20	0.053	ng/l	SW846 8270C BY SIM
Phenanthrene		0.23	0.051	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.048 J	0.10	0.036	ug/l	SW846 8270C BY SIM

MC17633-9 TB-011713-HCL-W

No hits reported in this sample.

MC17633-10 TB-011713-ST-W

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW6B-ROX-011713		
Lab Sample ID:	MC17633-1	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW6B-ROX-011713		
Lab Sample ID:	MC17633-1	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ng/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	16.6	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW6B-ROX-011713		
Lab Sample ID:	MC17633-1	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW6B-ROX-011713		
Lab Sample ID:	MC17633-1	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8795.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ng/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	2.6	5.0	0.55	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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:	MW6B-ROX-011713		
Lab Sample ID:	MC17633-1	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	25%		15-110%
118-79-6	2,4,6-Tribromophenol	80%		15-110%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW6B-ROX-011713		
Lab Sample ID:	MC17633-1	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11856.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	25%		15-110%
118-79-6	2,4,6-Tribromophenol	68%		15-110%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	78%		30-130%

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:	MW6B-ROX-011713		
Lab Sample ID:	MC17633-1	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78006.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	36.3 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	130%		36-173%
460-00-4	Bromofluorobenzene (S)	107%		36-173%

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

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

Report of Analysis

Client Sample ID:	MW6B-ROX-011713-EB		
Lab Sample ID:	MC17633-2	Date Sampled:	01/17/13
Matrix:	AQ - Equipment Blank	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66667.D	1	01/22/13	GK	n/a	n/a	MSK2189
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	u-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzeue	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carhon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ng/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzeue	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-011713-EB		
Lab Sample ID:	MC17633-2	Date Sampled:	01/17/13
Matrix:	AQ - Equipment Blank	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Tolnene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ng/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated valne
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6B-ROX-011713-EB		
Lab Sample ID:	MC17633-2	Date Sampled:	01/17/13
Matrix:	AQ - Equipment Blank	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW6B-ROX-011713-EB		
Lab Sample ID:	MC17633-2	Date Sampled:	01/17/13
Matrix:	AQ - Equipment Blank	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8796.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotolnene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ng/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ng/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
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N = Indicates presumptive evidence of a cumponnd

Report of Analysis

Client Sample ID:	MW6B-ROX-011713-EB		
Lab Sample ID:	MC17633-2	Date Sampled:	01/17/13
Matrix:	AQ - Equipment Blank	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		15-110%
4165-62-2	Phenol-d5	22%		15-110%
118-79-6	2,4,6-Tribromophenol	69%		15-110%
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	81%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW6B-ROX-011713-EB		
Lab Sample ID:	MC17633-2	Date Sampled:	01/17/13
Matrix:	AQ - Equipment Blank	Date Received:	01/18/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11857.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Pheuauthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	29%		15-110%
4165-62-2	Phenol-d5	22%		15-110%
118-79-6	2,4,6-Tribromophenol	60%		15-110%
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	85%		30-130%

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

Report of Analysis

Client Sample ID:	MW6B-ROX-011713-EB		
Lab Sample ID:	MC17633-2	Date Sampled:	01/17/13
Matrix:	AQ - Equipment Blank	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78007.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	37.6 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0097	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	93%		36-173%
460-00-4	Bromofluorobenzene (S)	79%		36-173%

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

Report of Analysis

Client Sample ID:	MW6C-ROX-011713		
Lab Sample ID:	MC17633-3	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66679.D	1	01/22/13	GK	n/a	n/a	MSK2189
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	UJ
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	UJ
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ng/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW6C-ROX-011713		
Lab Sample ID:	MC17633-3	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	U J
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropeue	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.2	1.0	0.41	ug/l	J
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	U J
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropaue	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzeue	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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 aualyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6C-ROX-011713		
Lab Sample ID:	MC17633-3	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.0300I 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	107%		70-130%
460-00-4	4-Bromofluorobenzene	112%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW6C-ROX-011713		
Lab Sample ID:	MC17633-3	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8797.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	2.2	5.0	0.55	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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:	MW6C-ROX-011713		
Lab Sample ID:	MC17633-3	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	20%		15-110%
4165-62-2	Phenol-d5	15%		15-110%
118-79-6	2,4,6-Tribromophenol	73%		15-110%
4165-60-0	Nitrobenzene-d5	48%		30-130%
321-60-8	2-Fluorobiphenyl	44%		30-130%
1718-51-0	Terphenyl-d14	66%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW6C-ROX-011713		
Lab Sample ID:	MC17633-3	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxaua 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11858.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluorauthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	22%		15-110%
4165-62-2	Phenol-d5	17%		15-110%
118-79-6	2,4,6-Tribromophenol	64%		15-110%
4165-60-0	Nitrobenzene-d5	50%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

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

Report of Analysis

Client Sample ID:	MW6C-ROX-011713		
Lab Sample ID:	MC17633-3	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78008.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	35.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	128%		36-173%
460-00-4	Bromofluorobenzene (S)	108%		36-173%

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

Report of Analysis

Client Sample ID:	MW6D-ROX-011713		
Lab Sample ID:	MC17633-4	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66680.D	1	01/22/13	GK	n/a	n/a	MSK2189
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	UJ
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	0.53	0.50	0.24	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	UJ
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	U
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW6D-ROX-011713		
Lab Sample ID:	MC17633-4	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

4.4

4

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ng/l	
10061-01-5	cis-1,3-Dicbloropropene	ND	0.50	0.45	ng/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ng/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ng/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

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

Report of Analysis

Client Sample ID:	MW6D-ROX-011713		
Lab Sample ID:	MC17633-4	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromoflnoromethane	113%		70-130%
2037-26-5	Toluene-D8	108%		70-130%
460-00-4	4-Bromofluorobenzene	112%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ng/l	

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

Report of Analysis

Client Sample ID:	MW6D-ROX-011713		
Lab Sample ID:	MC17633-4	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8798.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	ng/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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ng/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ng/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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:	MW6D-ROX-011713		
Lab Sample ID:	MC17633-4	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	23%		15-110%
4165-62-2	Phenol-d5	17%		15-110%
118-79-6	2,4,6-Tribromophenol	67%		15-110%
4165-60-0	Nitrobenzene-d5	44%		30-130%
321-60-8	2-Fluorobiphenyl	39%		30-130%
1718-51-0	Terphenyl-d14	43%		30-130%

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

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RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW6D-ROX-011713		
Lab Sample ID:	MC17633-4	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11859.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	24%		15-110%
4165-62-2	Phenol-d5	18%		15-110%
118-79-6	2,4,6-Tribromophenol	61%		15-110%
4165-60-0	Nitrobenzene-d5	46%		30-130%
321-60-8	2-Fluorobiphenyl	50%		30-130%
1718-51-0	Terphenyl-d14	50%		30-130%

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:	MW6D-ROX-011713		
Lab Sample ID:	MC17633-4	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78009.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	36.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0099	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	136%		36-173%
460-00-4	Bromofluorobenzene (S)	115%		36-173%

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

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

Report of Analysis

Client Sample ID:	TB-011713-HCL-R		
Lab Sample ID:	MC17633-5	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66666.D	1	01/22/13	GK	n/a	n/a	MSK2189
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ng/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-011713-HCL-R		
Lab Sample ID:	MC17633-5	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ng/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbeozene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-011713-HCL-R		
Lab Sample ID:	MC17633-5	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	114%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

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

Report of Analysis

Client Sample ID:	TB-011713-ST-R		
Lab Sample ID:	MC17633-6	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78010.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	34.0 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	139%		36-173%
460-00-4	Bromofluorobenzene (S)	120%		36-173%

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

Report of Analysis

Client Sample ID:	P56-ROX-011713		
Lab Sample ID:	MC17633-7	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66683.D	5	01/22/13	GK	n/a	n/a	MSK2189
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	15	ug/l	
107-02-8	Acrolein	ND	130	51	ug/l	UJ
107-13-1	Acrylonitrile	ND	25	16	ug/l	
71-43-2	Benzene	191	2.5	1.2	ug/l	
108-86-1	Bromobenzene	ND	25	3.1	ug/l	
74-97-5	Bromochloromethane	ND	25	6.3	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	2.9	ug/l	
75-25-2	Bromoform	ND	5.0	3.9	ug/l	
74-83-9	Bromomethane	ND	10	5.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	25	12	ug/l	
104-51-8	n-Butylbenzene	3.1	25	3.0	ug/l	J
135-98-8	sec-Butylbenzene	ND	25	2.8	ug/l	
98-06-6	tert-Butylbenzene	ND	25	3.2	ug/l	
75-15-0	Carbon disulfide	ND	25	3.1	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	4.3	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.3	ug/l	
75-00-3	Chloroethane	ND	10	2.5	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	25	6.3	ng/l	UJ
67-66-3	Chloroform	ND	5.0	2.5	ug/l	
74-87-3	Chloromethane	ND	10	3.7	ng/l	
95-49-8	o-Chlorotolnene	ND	25	3.2	ug/l	
106-43-4	p-Chlorotolnene	ND	25	2.4	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	2.6	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	4.6	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	3.2	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	8.6	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	3.1	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	3.2	ug/l	
75-35-4	1,1-Dichloroetbene	ND	5.0	2.1	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	3.2	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	4.7	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:	P56-ROX-011713		
Lab Sample ID:	MC17633-7	Date Sampled:	01/17/13
Matrix:	AQ - Gronnd Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	10	3.6	ug/l	
142-28-9	1,3-Dichloropropane	ND	25	3.2	ug/l	
594-20-7	2,2-Dichloropropane	ND	25	7.9	ug/l	
563-58-6	1,1-Dichloropropene	ND	25	4.6	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	2.2	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.98	ug/l	
123-91-1	1,4-Dioxane	ND	130	74	ug/l	
97-63-2	Ethyl methacrylate	ND	25	4.1	ug/l	
100-41-4	Ethylbenzene	8.8	5.0	2.5	ug/l	
87-68-3	Hexachlorobutadiene	ND	25	10	ug/l	
591-78-6	2-Hexanone	ND	25	9.8	ug/l	
98-82-8	Isopropylbenzene	39.8	25	2.5	ug/l	
99-87-6	p-Isopropyltoluene	ND	25	2.9	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	2.1	ug/l	
108-10-1	4-Methyl-2-pentauone (MIBK)	ND	25	15	ug/l	
74-95-3	Methylene bromide	ND	25	5.5	ug/l	
75-09-2	Methylene chloride	ND	10	4.2	ug/l	
91-20-3	Naphthalene	32.2	25	2.5	ng/l	
103-65-1	n-Propylbenzene	45.6	25	2.9	ug/l	
100-42-5	Styrene	ND	25	2.3	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	2.9	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	3.0	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.1	ug/l	
108-88-3	Toluene	11.9	5.0	2.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	25	6.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	25	6.4	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	4.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	3.9	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	1.4	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	25	4.2	ug/l	
95-63-6	1,2,4-Trimethylbenzene	17.2	25	1.7	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	9.2	25	2.3	ug/l	J
108-05-4	Vinyl Acetate	ND	25	6.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ug/l	
	m,p-Xylene	74.5	5.0	3.7	ug/l	
95-47-6	o-Xylene	ND	5.0	2.9	ug/l	
1330-20-7	Xylene (total)	74.5	5.0	2.9	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:	P56-ROX-011713		
Lab Sample ID:	MC17633-7	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%
2037-26-5	Toluene-D8	112%		70-130%
460-00-4	4-Bromofluorobenzene	118%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P56-ROX-011713		
Lab Sample ID:	MC17633-7	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8799.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitropheuol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	1.4	5.0	1.0	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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 componnd

Report of Analysis

Client Sample ID:	P56-ROX-011713		
Lab Sample ID:	MC17633-7	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	4.4	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	ng/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	1.3	ng/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluoropheuol	34%		15-110%
4165-62-2	Phenol-d5	30%		15-110%
118-79-6	2,4,6-Tribromophenol	78%		15-110%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	60%		30-130%

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

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

Report of Analysis

Client Sample ID:	P56-ROX-011713		
Lab Sample ID:	MC17633-7	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11860.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.39	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.083	0.10	0.013	ug/l	J
120-12-7	Anthracene	0.10	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.32	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	14.7	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	13.1	0.20	0.052	ug/l	
85-01-8	Phenanthrene	1.2	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoverics	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		15-110%
4165-62-2	Phenol-d5	30%		15-110%
118-79-6	2,4,6-Tribromophenol	67%		15-110%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%
1718-51-0	Terphenyl-d14	69%		30-130%

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:	P56-ROX-011713		
Lab Sample ID:	MC17633-7	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78011.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	38.2 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0095	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	115%		36-173%
460-00-4	Bromofluorobenzene (S)	123%		36-173%

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

Report of Analysis

Client Sample ID:	P74-ROX-011713		
Lab Sample ID:	MC17633-8	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66686.D	20	01/22/13	GK	n/a	n/a	MSK2189
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	60	ug/l	
107-02-8	Acrolein	ND	500	200	ng/l	UJ
107-13-1	Acrylonitrile	ND	100	65	ug/l	
71-43-2	Benzene	4990	10	4.8	ug/l	
108-86-1	Bromobenzene	ND	100	12	ug/l	
74-97-5	Bromochloromethane	ND	100	25	ug/l	
75-27-4	Bromodichloromethane	ND	20	12	ug/l	
75-25-2	Bromoform	ND	20	16	ug/l	
74-83-9	Bromomethane	ND	40	20	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	48	ug/l	
104-51-8	u-Butylbenzene	14.3	100	12	ug/l	J
135-98-8	sec-Butylbenzene	ND	100	11	ug/l	
98-06-6	tert-Butylhenzene	ND	100	13	ug/l	
75-15-0	Carbon disulfide	ND	100	12	ug/l	
56-23-5	Carbon tetrachloride	ND	20	17	ug/l	
108-90-7	Chlorobenzene	ND	20	9.4	ug/l	
75-00-3	Chloroethane	ND	40	10	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	100	25	ug/l	UJ
67-66-3	Chloroform	ND	20	9.9	ng/l	
74-87-3	Chloromethane	ND	40	15	ug/l	
95-49-8	o-Chlorotoluene	ND	100	13	ug/l	
106-43-4	p-Chlorotoluene	ND	100	9.7	ug/l	
124-48-1	Dibromochloromethane	ND	20	11	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	20	19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	20	9.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	20	13	ug/l	
75-71-8	Dichlorodifluoromethane	ND	40	35	ug/l	
75-34-3	1,1-Dichloroethane	ND	20	12	ug/l	
107-06-2	1,2-Dichloroethane	ND	20	13	ug/l	
75-35-4	1,1-Dichloroethene	ND	20	8.2	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	20	13	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	20	19	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:	P74-ROX-011713		
Lab Sample ID:	MC17633-8	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	40	14	ug/l	
142-28-9	1,3-Dichloropropane	ND	100	13	ug/l	
594-20-7	2,2-Dichloropropane	ND	100	31	ug/l	
563-58-6	1,1-Dichloropropene	ND	100	18	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	9.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.9	ug/l	
123-91-1	1,4-Dioxane	ND	500	300	ug/l	
97-63-2	Ethyl methacrylate	ND	100	16	ug/l	
100-41-4	Ethylbeuzene	99.7	20	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	100	41	ug/l	
591-78-6	2-Hexanone	ND	100	39	ug/l	
98-82-8	Isopropylbenzene	ND	100	10	ug/l	
99-87-6	p-Isopropyltoluene	ND	100	11	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	20	8.2	ug/l	
108-10-1	4-Methyl-2-pentanoue (MIBK)	ND	100	58	ug/l	
74-95-3	Methylene bromide	ND	100	22	ug/l	
75-09-2	Methylene chloride	ND	40	17	ug/l	
91-20-3	Naphthalene	141	100	10	ug/l	
103-65-1	n-Propylbenzene	ND	100	12	ug/l	
100-42-5	Styrene	ND	100	9.1	ng/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	100	11	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	12	ug/l	
127-18-4	Tetrachloroethene	ND	20	8.4	ug/l	
108-88-3	Toluene	278	20	10	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	100	25	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	100	26	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	20	17	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	20	10	ug/l	
79-01-6	Trichloroethene	ND	20	16	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	5.7	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	100	17	ug/l	
95-63-6	1,2,4-Trimethylbenzene	249	100	6.9	ug/l	
108-67-8	1,3,5-Trimethylbenzene	97.3	100	9.3	ug/l	J
108-05-4	Vinyl Acetate	ND	100	25	ug/l	
75-01-4	Vinyl chloride	ND	20	13	ug/l	
	m,p-Xylene	547	20	15	ug/l	
95-47-6	o-Xylene	ND	20	12	ug/l	
1330-20-7	Xylene (total)	555	20	12	ug/l	

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:	P74-ROX-011713		
Lab Sample ID:	MC17633-8	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	113%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ng/l	

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

Report of Analysis

Client Sample ID:	P74-ROX-011713		
Lab Sample ID:	MC17633-8	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8800.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.72	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	2.1	10	1.6	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	1.0	10	1.0	ug/l	J
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	29.8	5.1	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.65	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.74	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.67	ug/l	
100-51-6	Benzyl Alcohol	2.8	10	1.8	ug/l	J
91-58-7	2-Chloronaphthalene	ND	5.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.98	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.82	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.78	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.91	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	1.3	ug/l	

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

Report of Analysis

Client Sample ID:	P74-ROX-011713		
Lab Sample ID:	MC17633-8	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.51	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.47	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.54	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	1.6	ug/l	
78-59-1	Isophorone	ND	5.1	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.88	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.98	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		15-110%
4165-62-2	Phenol-d5	33%		15-110%
118-79-6	2,4,6-Tribromophenol	93%		15-110%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	59%		30-130%

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

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

Report of Analysis

Client Sample ID:	P74-ROX-011713		
Lab Sample ID:	MC17633-8	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11861.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.19	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.10	0.10	0.014	ug/l	
120-12-7	Anthracene	0.063	0.10	0.018	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.051	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.074	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	0.038	0.10	0.033	ug/l	J
86-73-7	Fluorene	0.38	0.10	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
90-12-0	1-Methylnaphthalene	15.6	0.20	0.14	ug/l	
91-57-6	2-Methylnaphtbalene	19.8	0.20	0.053	ug/l	
85-01-8	Phenanthrene	0.23	0.051	0.013	ug/l	
129-00-0	Pyrene	0.048	0.10	0.036	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		15-110%
4165-62-2	Phenol-d5	32%		15-110%
118-79-6	2,4,6-Tribromophenol	76%		15-110%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%
1718-51-0	Terphenyl-d14	68%		30-130%

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

Report of Analysis

Client Sample ID:	P74-ROX-011713		
Lab Sample ID:	MC17633-8	Date Sampled:	01/17/13
Matrix:	AQ - Ground Water	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78012.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	119%		36-173%
460-00-4	Bromofluorobenzene (S)	102%		36-173%

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

Report of Analysis

Client Sample ID:	TB-011713-HCL-W		
Lab Sample ID:	MC17633-9	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K66665.D	1	01/22/13	GK	n/a	n/a	MSK2189
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ng/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-011713-HCL-W		
Lab Sample ID:	MC17633-9	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexauone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ng/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:	TB-011713-HCL-W		
Lab Sample ID:	MC17633-9	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	115%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-011713-ST-W		
Lab Sample ID:	MC17633-10	Date Sampled:	01/17/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/18/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78013.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
Run #2							

	Initial Volume	Final Volume
Run #1	35.6 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	143%		36-173%
460-00-4	Bromofluorobenzene (S)	120%		36-173%

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

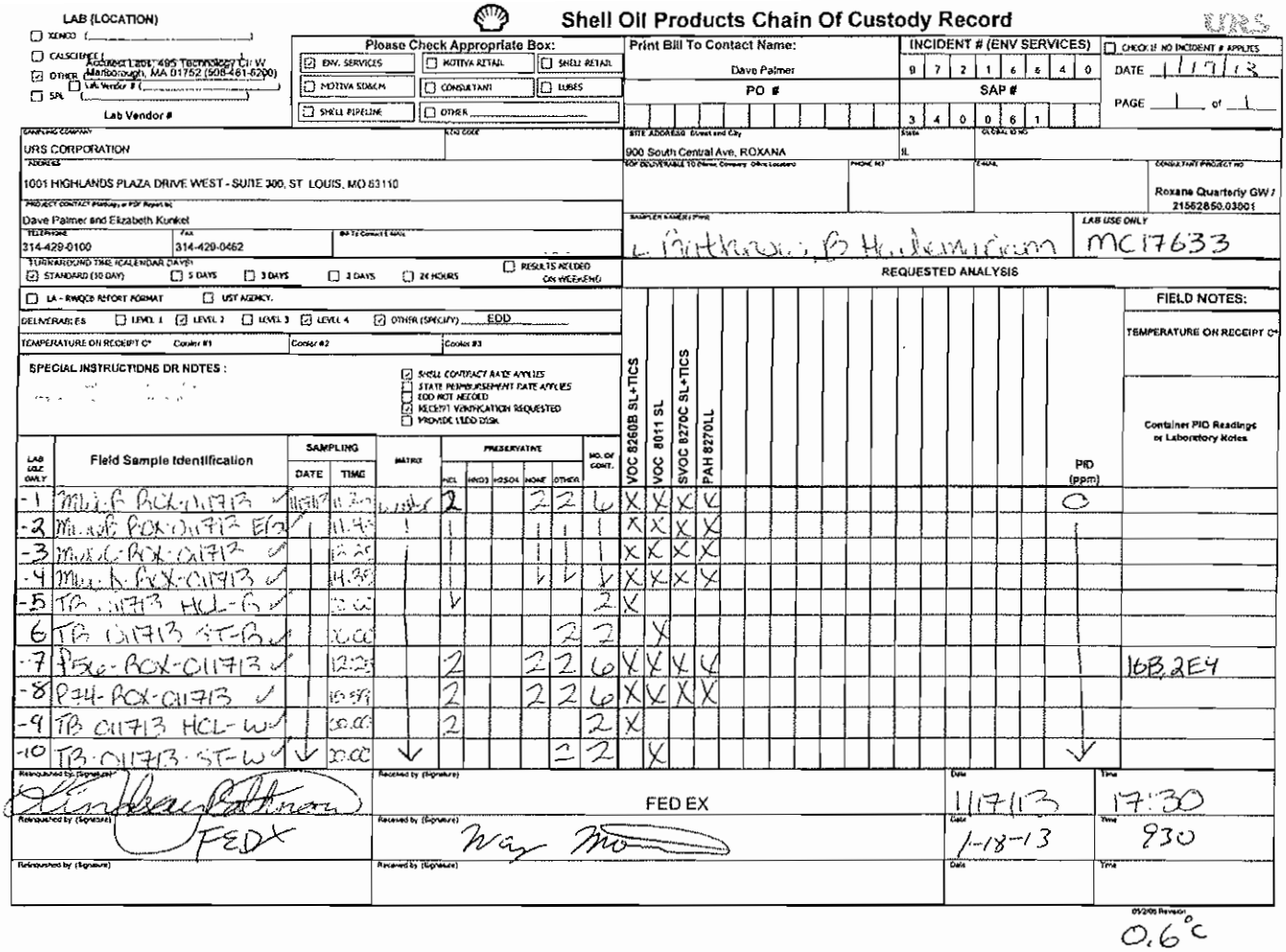
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE 1/17/13
PAGE 1 of 1

SAMPLING COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462
SITE ADDRESS (Street and City): 900 South Central Ave, ROXANA
STATE: IL
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21582850.03001
SAMPLER NAME(S) (Print): L. Matthews, B. Hollenkamp
LAB USE ONLY: MC17633
TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3
SPECIAL INSTRUCTIONS OR NOTES:
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

LAB LOC ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	MW-6-ROX-011713	1/17/13	10:30	water	2			2	2	6	X	X	X	X	0	
-2	MW-20B-ROX-011713-EQ		11:45		1			1	1	1	X	X	X	X		
-3	MW-6-ROX-011713		12:25		1			1	1	1	X	X	X	X		
-4	MW-4-ROX-011713		14:35		1			1	1	1	X	X	X	X		
-5	TB-011713-HCL-W		10:00		1					2	X					
6	TB-011713-ST-W		10:00						2	2		X				
-7	PZ-6-ROX-011713		12:25		2			2	2	6	X	X	X	X		16B.2E4
-8	PZ-4-ROX-011713		15:55		2			2	2	6	X	X	X	X		
-9	TB-011713-HCL-W		10:00		2				2	X						
-10	TB-011713-ST-W	↓	10:00	↓					2	2		X			↓	

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	FED EX	1/17/13	17:30
FEDX	[signature]	1-18-13	930

05/20/05 Revision

0.6°C

5.1

MC17633: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17633 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/18/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SOUTH CENTRAL No. Coolers: 1 Airbill #'s:

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Infared gun		
3. Cooler media:	Ice (bag)		

Quality Control Preservatio	Y	or	N	N/A
1 Trip Blank present / coolor:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3 Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V 508.481.6200

495 Technology Center West Bldg One
F 508.481.7753

Marlborough, MA
www.accutest.com

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5

MC17633: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17633

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17633-1 Collected: 17-JAN-13 11:25 By: LRBH Received: 18-JAN-13 By: MW6B-ROX-011713						
MC17633-1	SW846 8270C	21-JAN-13 19:37	NS	19-JAN-13	MR	AB8270SL+
MC17633-1	SW846 8270C BY SIM	21-JAN-13 20:17	NS	19-JAN-13	MR	B8270SIMSL
MC17633-1	SW846 8011	22-JAN-13 08:18	CZ	19-JAN-13	BJ	V8011SL
MC17633-1	SW846 8260B	25-JAN-13 12:35	AMY			V8260SL+
MC17633-2 Collected: 17-JAN-13 11:45 By: LRBH Received: 18-JAN-13 By: MW6B-ROX-011713-EB						
MC17633-2	SW846 8270C	21-JAN-13 20:01	NS	19-JAN-13	MR	AB8270SL+
MC17633-2	SW846 8270C BY SIM	21-JAN-13 20:40	NS	19-JAN-13	MR	B8270SIMSL
MC17633-2	SW846 8011	22-JAN-13 08:43	CZ	19-JAN-13	BJ	V8011SL
MC17633-2	SW846 8260B	22-JAN-13 11:45	GK			V8260SL+
MC17633-3 Collected: 17-JAN-13 13:35 By: LRBH Received: 18-JAN-13 By: MW6C-ROX-011713						
MC17633-3	SW846 8270C	21-JAN-13 20:24	NS	19-JAN-13	MR	AB8270SL+
MC17633-3	SW846 8270C BY SIM	21-JAN-13 21:02	NS	19-JAN-13	MR	B8270SIMSL
MC17633-3	SW846 8011	22-JAN-13 09:08	CZ	19-JAN-13	BJ	V8011SL
MC17633-3	SW846 8260B	22-JAN-13 17:14	GK			V8260SL+
MC17633-4 Collected: 17-JAN-13 14:35 By: LRBH Received: 18-JAN-13 By: MW6D-ROX-011713						
MC17633-4	SW846 8270C	21-JAN-13 20:48	NS	19-JAN-13	MR	AB8270SL+
MC17633-4	SW846 8270C BY SIM	21-JAN-13 21:25	NS	19-JAN-13	MR	B8270SIMSL
MC17633-4	SW846 8011	22-JAN-13 09:34	CZ	19-JAN-13	BJ	V8011SL
MC17633-4	SW846 8260B	22-JAN-13 17:42	GK			V8260SL+
MC17633-5 Collected: 17-JAN-13 00:00 By: LRBH Received: 18-JAN-13 By: TB-011713-HCL-R						
MC17633-5	SW846 8260B	22-JAN-13 11:17	GK			V8260SL+
MC17633-6 Collected: 17-JAN-13 00:00 By: LRBH Received: 18-JAN-13 By: TB-011713-ST-R						

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17633

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17633-6	SW846 8011	22-JAN-13 09:58	CZ	19-JAN-13	BJ	V8011SL
MC17633-7 Collected: 17-JAN-13 12:25 By: LRBH Received: 18-JAN-13 By: P56-ROX-011713						
MC17633-7	SW846 8270C	21-JAN-13 21:12	NS	19-JAN-13	MR	AB8270SL+
MC17633-7	SW846 8270C BY SIM	21-JAN-13 21:47	NS	19-JAN-13	MR	B8270SIMSL
MC17633-7	SW846 8011	22-JAN-13 10:23	CZ	19-JAN-13	BJ	V8011SL
MC17633-7	SW846 8260B	22-JAN-13 19:03	GK			V8260SL+
MC17633-8 Collected: 17-JAN-13 15:59 By: LRBH Received: 18-JAN-13 By: P74-ROX-011713						
MC17633-8	SW846 8270C	21-JAN-13 21:35	NS	19-JAN-13	MR	AB8270SL+
MC17633-8	SW846 8270C BY SIM	21-JAN-13 22:10	NS	19-JAN-13	MR	B8270SIMSL
MC17633-8	SW846 8011	22-JAN-13 10:48	CZ	19-JAN-13	BJ	V8011SL
MC17633-8	SW846 8260B	22-JAN-13 20:25	GK			V8260SL+
MC17633-9 Collected: 17-JAN-13 00:00 By: LRBH Received: 18-JAN-13 By: TB-011713-HCL-W						
MC17633-9	SW846 8260B	22-JAN-13 10:50	GK			V8260SL+
MC17633-10 Collected: 17-JAN-13 00:00 By: LRBH Received: 18-JAN-13 By: TB-011713-ST-W						
MC17633-10	SW846 8011	22-JAN-13 11:14	CZ	19-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/18/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17633-1.1	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17633-1.1	Chris Cataldo		01/19/13 19:10	Depleted
MC17633-1.3	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17633-1.3	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17633-1.3	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17633-1.3	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17633-1.6	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-1.6	Bijan Jafari		01/21/13 13:55	Depleted
MC17633-2.2	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17633-2.2	Chris Cataldo		01/19/13 19:10	Depleted
MC17633-2.4	VOC Ref #2	Gary Krasinski	01/22/13 10:32	Retrieve from Storage
MC17633-2.4	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17633-2.5	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-2.5	Bijan Jafari		01/21/13 13:55	Depleted
MC17633-3.2	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17633-3.2	Chris Cataldo		01/19/13 19:10	Depleted
MC17633-3.3	VOC Ref #2	Gary Krasinski	01/22/13 10:47	Retrieve from Storage
MC17633-3.3	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17633-3.6	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-3.6	Bijan Jafari		01/21/13 13:55	Depleted
MC17633-4.1	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17633-4.1	Chris Cataldo		01/19/13 19:10	Depleted
MC17633-4.3	VOC Ref #2	Gary Krasinski	01/22/13 10:47	Retrieve from Storage
MC17633-4.3	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17633-4.6	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-4.6	Bijan Jafari		01/21/13 13:55	Depleted
MC17633-5.1	VOC Ref #2	Gary Krasinski	01/22/13 10:32	Retrieve from Storage
MC17633-5.1	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17633-6.1	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-6.1	Bijan Jafari		01/21/13 13:55	Depleted

Accutest Internal Chain of Custody

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/18/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17633-7.2	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17633-7.2	Chris Cataldo		01/19/13 19:10	Depleted
MC17633-7.3	VOC Ref #2	Gary Krasinski	01/22/13 10:47	Retrieve from Storage
MC17633-7.3	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17633-7.5	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-7.5	Bijan Jafari		01/21/13 13:55	Depleted
MC17633-8.1	Walk In Ref #22	Chris Cataldo	01/19/13 13:29	Retrieve from Storage
MC17633-8.1	Chris Cataldo		01/19/13 19:10	Depleted
MC17633-8.4	VOC Ref #2	Gary Krasinski	01/22/13 10:47	Retrieve from Storage
MC17633-8.4	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17633-8.5	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-8.5	Bijan Jafari		01/21/13 13:55	Depleted
MC17633-9.1	VOC Ref #2	Gary Krasinski	01/22/13 10:32	Retrieve from Storage
MC17633-9.1	Gary Krasinski	VOC Ref #2	01/23/13 09:24	Return to Storage
MC17633-10.2	VOC Ref #2	Bijan Jafari	01/19/13 05:30	Retrieve from Storage
MC17633-10.2	Bijan Jafari		01/21/13 13:55	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

9

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-MB	K66664.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Bntylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ng/l	

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-MB	K66664.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbeuzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (M1BK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzeue	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ng/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-MB	K66664.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	70-130%
2037-26-5	Toluene-D8	107%	70-130%
460-00-4	4-Bromofluorobenzene	111%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ng/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ng/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-BS	K66661.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	65.0	130	70-130
107-02-8	Acrolein	250	230	92	70-130
107-13-1	Acrylonitrile	50	58.5	117	70-130
71-43-2	Benzene	50	52.8	106	70-130
108-86-1	Bromobenzene	50	53.3	107	70-130
74-97-5	Bromochloromethane	50	49.0	98	70-130
75-27-4	Bromodichloromethane	50	50.3	101	70-130
75-25-2	Bromoform	50	41.9	84	70-130
74-83-9	Bromomethane	50	47.3	95	70-130
78-93-3	2-Butanone (MEK)	50	61.4	123	70-130
104-51-8	n-Butylbenzene	50	60.3	121	70-130
135-98-8	sec-Butylbenzene	50	56.2	112	70-130
98-06-6	tert-Butylbenzene	50	55.9	112	70-130
75-15-0	Carbon disulfide	50	55.2	110	70-130
56-23-5	Carbon tetrachloride	50	45.5	91	70-130
108-90-7	Chlorobenzene	50	44.4	89	70-130
75-00-3	Chloroethane	50	54.0	108	70-130
110-75-8	2-Chloroethyl vinyl ether	50	16.3	33* a	70-130
67-66-3	Chloroform	50	49.9	100	70-130
74-87-3	Chloromethane	50	52.4	105	70-130
95-49-8	o-Chlorotoluene	50	56.8	114	70-130
106-43-4	p-Chlorotoluene	50	57.5	115	70-130
124-48-1	Dibromochloromethane	50	47.3	95	70-130
95-50-1	1,2-Dichlorobenzene	50	48.9	98	70-130
541-73-1	1,3-Dichlorobenzene	50	49.2	98	70-130
106-46-7	1,4-Dichlorobenzene	50	48.2	96	70-130
75-71-8	Dichlorodifluoromethane	50	45.5	91	70-130
75-34-3	1,1-Dichloroethane	50	55.5	111	70-130
107-06-2	1,2-Dichloroethane	50	49.2	98	70-130
75-35-4	1,1-Dichloroethene	50	56.1	112	70-130
156-59-2	cis-1,2-Dichloroethene	50	52.1	104	70-130
156-60-5	trans-1,2-Dichloroethene	50	54.4	109	70-130
78-87-5	1,2-Dichloropropane	50	55.8	112	70-130
142-28-9	1,3-Dichloropropane	50	51.4	103	70-130
594-20-7	2,2-Dichloropropane	50	50.2	100	70-130
563-58-6	1,1-Dichloropropene	50	59.3	119	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-BS	K66661.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	56.0	112	70-130
10061-02-6	trans-1,3-Dichloropropene	50	58.6	117	70-130
123-91-1	1,4-Dioxane	250	277	111	70-130
97-63-2	Ethyl methacrylate	50	49.8	100	77-137
100-41-4	Ethylbenzene	50	54.8	110	70-130
87-68-3	Hexachlorobutadiene	50	48.2	96	70-130
591-78-6	2-Hexanone	50	56.8	114	70-130
98-82-8	Isopropylbenzene	50	55.8	112	70-130
99-87-6	p-Isopropyltoluene	50	56.1	112	70-130
1634-04-4	Methyl Tert Butyl Ether	50	56.5	113	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	53.8	108	70-130
74-95-3	Methylene bromide	50	49.6	99	70-130
75-09-2	Methylene chloride	50	52.6	105	70-130
91-20-3	Naphthalene	50	48.5	97	70-130
103-65-1	n-Propylbenzene	50	59.1	118	70-130
100-42-5	Styrene	50	49.6	99	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	46.3	93	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	56.9	114	70-130
127-18-4	Tetrachloroethene	50	47.6	95	70-130
108-88-3	Toluene	50	56.9	114	70-130
87-61-6	1,2,3-Trichlorobenzene	50	47.8	96	70-130
120-82-1	1,2,4-Trichlorobenzene	50	50.5	101	70-130
71-55-6	1,1,1-Trichloroethane	50	48.6	97	70-130
79-00-5	1,1,2-Trichloroethane	50	52.5	105	70-130
79-01-6	Trichloroethene	50	50.8	102	70-130
75-69-4	Trichlorofluoromethane	50	49.3	99	70-130
96-18-4	1,2,3-Trichloropropane	50	56.9	114	70-130
95-63-6	1,2,4-Trimethylbenzene	50	52.2	104	70-130
108-67-8	1,3,5-Trimethylbenzene	50	52.6	105	70-130
108-05-4	Vinyl Acetate	50	57.2	114	70-130
75-01-4	Vinyl chloride	50	45.2	90	70-130
	m,p-Xylene	100	110	110	70-130
95-47-6	o-Xylene	50	50.9	102	70-130
1330-20-7	Xylene (total)	150	161	107	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2189-BS	K66661.D	1	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	113%	70-130%
460-00-4	4-Bromofluorobenzene	117%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

6.2.1

6

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	66.3	133* a	64.3	129	3	70-130/25
107-02-8	Acrolein	250	190	76	162	65* a	16	70-130/25
107-13-1	Acrylonitrile	50	62.3	125	73.4	147* b	16	70-130/25
71-43-2	Benzene	50	51.2	102	51.3	103	0	70-130/25
108-86-1	Bromobenzene	50	45.7	91	45.3	91	1	70-130/25
74-97-5	Bromochloromethane	50	59.7	119	60.4	121	1	70-130/25
75-27-4	Bromodichloromethane	50	51.7	103	51.8	104	0	70-130/25
75-25-2	Bromoform	50	43.3	87	49.8	100	14	70-130/25
74-83-9	Bromomethane	50	57.0	114	51.7	103	10	70-130/25
78-93-3	2-Butanone (MEK)	50	57.8	116	68.9	138* a	18	70-130/25
104-51-8	n-Butylbenzene	50	42.5	85	45.7	91	7	70-130/25
135-98-8	sec-Butylbenzene	50	52.3	105	51.0	102	3	70-130/25
98-06-6	tert-Butylbenzene	50	51.7	103	49.5	99	4	70-130/25
75-15-0	Carbon disulfide	50	56.0	112	54.3	109	3	70-130/25
56-23-5	Carbon tetrachloride	50	51.6	103	52.1	104	1	70-130/25
108-90-7	Chlorobenzene	50	50.1	100	53.9	108	7	70-130/25
75-00-3	Chloroethane	50	58.9	118	49.3	99	18	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	39.7	79	40.4	81	2	70-130/25
67-66-3	Chloroform	50	59.7	119	60.6	121	1	70-130/25
74-87-3	Chloromethane	50	57.1	114	51.3	103	11	70-130/25
95-49-8	o-Chlorotoluene	50	52.4	105	47.0	94	11	70-130/25
106-43-4	p-Chlorotoluene	50	51.9	104	47.0	94	10	70-130/25
124-48-1	Dibromochloromethane	50	44.7	89	50.1	100	11	70-130/25
95-50-1	1,2-Dichlorobenzene	50	46.4	93	50.3	101	8	70-130/25
541-73-1	1,3-Dichlorobenzene	50	47.9	96	47.8	96	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	42.1	84	43.0	86	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	43.3	87	44.7	89	3	70-130/25
75-34-3	1,1-Dichloroethane	50	58.1	116	58.7	117	1	70-130/25
107-06-2	1,2-Dichloroethane	50	58.5	117	57.7	115	1	70-130/25
75-35-4	1,1-Dichloroethene	50	59.6	119	58.6	117	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	53.7	107	57.2	114	6	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	56.0	112	55.1	110	2	70-130/25
78-87-5	1,2-Dichloropropane	50	54.0	108	53.7	107	1	70-130/25
142-28-9	1,3-Dichloropropane	50	47.9	96	51.2	102	7	70-130/25
594-20-7	2,2-Dichloropropane	50	64.5	129	64.3	129	0	70-130/25
563-58-6	1,1-Dichloropropene	50	57.8	116	57.9	116	0	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	56.0	112	55.8	112	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	61.8	124	60.7	121	2	70-130/25
123-91-1	1,4-Dioxane	250	338	135* a	332	133* a	2	70-130/25
97-63-2	Ethyl methacrylate	50	64.6	129	61.7	123	5	77-137/25
100-41-4	Ethylbenzene	50	47.0	94	48.8	98	4	70-130/25
87-68-3	Hexachlorobutadiene	50	39.2	78	42.6	85	8	70-130/25
591-78-6	2-Hexanone	50	64.3	129	66.1	132* a	3	70-130/25
98-82-8	Isopropylbenzene	50	57.1	114	54.7	109	4	70-130/25
99-87-6	p-Isopropyltoluene	50	47.2	94	47.8	96	1	70-130/25
1634-04-4	Methyl Tert Bntyl Ether	50	60.1	120	59.9	120	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	71.1	142* b	72.1	144* b	1	70-130/25
74-95-3	Methylene bromide	50	54.5	109	54.2	108	1	70-130/25
75-09-2	Methylene chloride	50	55.2	110	56.7	113	3	70-130/25
91-20-3	Naphthalene	50	51.2	102	57.1	114	11	70-130/25
103-65-1	n-Propylbenzene	50	55.0	110	49.8	100	10	70-130/25
100-42-5	Styrene	50	48.0	96	51.4	103	7	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	44.8	90	47.8	96	6	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	46.0	92	42.8	86	7	70-130/25
127-18-4	Tetrachloroethene	50	44.1	88	50.9	102	14	70-130/25
108-88-3	Toluene	50	55.9	112	54.8	110	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	46.3	93	47.7	95	3	70-130/25
120-82-1	1,2,4-Trichlorobenzeue	50	44.6	89	48.0	96	7	70-130/25
71-55-6	1,1,1-Trichloroethane	50	58.8	118	60.5	121	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.4	103	51.5	103	0	70-130/25
79-01-6	Trichloroethene	50	50.4	101	50.5	101	0	70-130/25
75-69-4	Trichlorofluoromethane	50	60.5	121	54.3	109	11	70-130/25
96-18-4	1,2,3-Trichloropropane	50	51.0	102	46.9	94	8	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	47.5	95	46.1	92	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	49.7	99	46.2	92	7	70-130/25
108-05-4	Vinyl Acetate	50	73.4	147* a	69.3	139* a	6	70-130/25
75-01-4	Vinyl chloride	50	58.5	117	52.5	105	11	70-130/25
	m,p-Xylene	100	103	103	109	109	6	70-130/25
95-47-6	o-Xylene	50	52.9	106	57.1	114	8	70-130/25
1330-20-7	Xylene (total)	150	155	103	166	111	7	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	97%	70-130%
2037-26-5	Toluene-D8	97%	96%	70-130%
460-00-4	4-Bromofluorobenzene	102%	93%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17565-6MS	K66676.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6MSD	K66677.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6	K66672.D	10	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Compound	MC17565-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		500	367	73	407	81	10	70-130/30
107-02-8	Acrolein	ND		2500	4980	199* [a]	5200	208* [a]	4	70-130/30
107-13-1	Acrylonitrile	ND		500	1230	246* [a]	1250	250* [a]	2	70-130/30
71-43-2	Benzene	15.4		500	528	103	538	105	2	70-130/30
108-86-1	Bromobenzene	ND		500	513	103	529	106	3	70-130/30
74-97-5	Bromochloromethane	ND		500	481	96	497	99	3	70-130/30
75-27-4	Bromodichloromethane	ND		500	473	95	488	98	3	70-130/30
75-25-2	Bromoform	ND		500	333	67* [a]	351	70	5	70-130/30
74-83-9	Bromomethane	ND		500	448	90	460	92	3	70-130/30
78-93-3	2-Butanone (MEK)	ND		500	452	90	523	105	15	70-130/30
104-51-8	n-Butylbenzene	29.0	J	500	608	116	625	119	3	70-130/30
135-98-8	sec-Butylbenzene	7.0	J	500	553	109	574	113	4	70-130/30
98-06-6	tert-Butylbenzene	ND		500	550	110	575	115	4	70-130/30
75-15-0	Carbon disulfide	ND		500	468	94	489	98	4	70-130/30
56-23-5	Carbon tetrachloride	ND		500	455	91	466	93	2	70-130/30
108-90-7	Chlorobenzene	ND		500	457	91	467	93	2	70-130/30
75-00-3	Chloroethane	ND		500	516	103	527	105	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		500	138	28* [a]	101	20* [a]	31* [b]	70-130/30
67-66-3	Chloroform	ND		500	498	100	498	100	0	70-130/30
74-87-3	Chloromethane	ND		500	481	96	504	101	5	70-130/30
95-49-8	o-Chlorotoluene	ND		500	693	139* [a]	717	143* [a]	3	70-130/30
106-43-4	p-Chlorotolnene	ND		500	568	114	578	116	2	70-130/30
124-48-1	Dibromochloromethane	ND		500	407	81	428	86	5	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		500	511	102	523	105	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		500	498	100	510	102	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		500	487	97	494	99	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		500	332	66* [a]	336	67* [a]	1	70-130/30
75-34-3	1,1-Dichloroethane	ND		500	507	101	523	105	3	70-130/30
107-06-2	1,2-Dichloroethane	ND		500	471	94	482	96	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		500	514	103	521	104	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		500	502	100	514	103	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		500	529	106	548	110	4	70-130/30
78-87-5	1,2-Dichloropropane	ND		500	561	112	555	111	1	70-130/30
142-28-9	1,3-Dichloropropane	ND		500	482	96	490	98	2	70-130/30
594-20-7	2,2-Dichloropropane	ND		500	467	93	483	97	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		500	560	112	579	116	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxaua 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17565-6MS	K66676.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6MSD	K66677.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6	K66672.D	10	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Compound	MC17565-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		500	537	107	555	111	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		500	539	108	548	110	2	70-130/30
123-91-1	1,4-Dioxane	ND		2500	1590	64* [a]	2400	96	41* [b]	70-130/30
97-63-2	Ethyl methacrylate	ND		500	443	89	485	97	9	72-139/30
100-41-4	Ethylbenzene	2770		500	2770	0* [c]	2800	6* [c]	1	70-130/30
87-68-3	Hexachlorobutadiene	ND		500	465	93	489	98	5	70-130/30
591-78-6	2-Hexanone	ND		500	460	92	516	103	11	70-130/30
98-82-8	Isopropylbenzene	64.5		500	630	113	652	118	3	70-130/30
99-87-6	p-Isopropyltoluene	ND		500	523	105	543	109	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		500	489	98	532	106	8	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		500	475	95	527	105	10	70-130/30
74-95-3	Methylene bromide	ND		500	479	96	496	99	3	70-130/30
75-09-2	Methylene chloride	ND		500	501	100	514	103	3	70-130/30
91-20-3	Naphthalene	518		500	881	73	966	90	9	70-130/30
103-65-1	n-Propylbenzene	186		500	774	118	806	124	4	70-130/30
100-42-5	Styrene	ND		500	464	93	483	97	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		500	461	92	471	94	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	477	95	512	102	7	70-130/30
127-18-4	Tetrachloroethene	ND		500	473	95	475	95	0	70-130/30
108-88-3	Toluene	69.2		500	619	110	631	112	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		500	445	89	495	99	11	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		500	485	97	523	105	8	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		500	480	96	494	99	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		500	494	99	517	103	5	70-130/30
79-01-6	Trichloroethene	ND		500	503	101	516	103	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		500	442	88	457	91	3	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		500	465	93	510	102	9	70-130/30
95-63-6	1,2,4-Trimethylbenzene	1760		500	2050	58* [c]	2090	66* [c]	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	369		500	831	92	860	98	3	70-130/30
108-05-4	Vinyl Acetate	ND		500	601	120	641	128	6	70-130/30
75-01-4	Vinyl chloride	ND		500	445	89	461	92	4	70-130/30
	m,p-Xylene	6120		1000	6090	-3* [c]	6080	-4* [c]	0	70-130/30
95-47-6	o-Xylene	587		500	1120	107	1120	107	0	70-130/30
1330-20-7	Xylene (total)	6710		1500	7210	33* [c]	7200	33* [c]	0	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17565-6MS	K66676.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6MSD	K66677.D	10	01/22/13	GK	n/a	n/a	MSK2189
MC17565-6	K66672.D	10	01/22/13	GK	n/a	n/a	MSK2189

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-2, MC17633-3, MC17633-4, MC17633-5, MC17633-7, MC17633-8, MC17633-9

CAS No.	Surrogate Recoveries	MS	MSD	MC17565-6	Limits
1868-53-7	Dibromofluoromethane	101%	100%	105%	70-130%
2037-26-5	Toluene-D8	112%	112%	110%	70-130%
460-00-4	4-Bromofluorobenzene	115%	114%	117%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.
(c) Ontside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	224	90	216	86	4	70-130/30
107-02-8	Acrolein	ND		1250	1600	128	1660	133* a	4	70-130/30
107-13-1	Acrylonitrile	ND		250	338	135* a	314	126	7	70-130/30
71-43-2	Benzene	ND		250	239	96	218	87	9	70-130/30
108-86-1	Bromobenzene	ND		250	216	86	207	83	4	70-130/30
74-97-5	Bromochloromethane	ND		250	277	111	284	114	2	70-130/30
75-27-4	Bromodichloromethane	ND		250	244	98	259	104	6	70-130/30
75-25-2	Bromoform	ND		250	229	92	191	76	18	70-130/30
74-83-9	Bromomethane	ND		250	246	98	236	94	4	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	277	111	344	138* a	22	70-130/30
104-51-8	n-Butylbenzene	ND		250	222	89	224	90	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	243	97	249	100	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	253	101	257	103	2	70-130/30
75-15-0	Carbon disulfide	ND		250	288	115	279	112	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	247	99	219	88	12	70-130/30
108-90-7	Chlorobenzene	ND		250	253	101	219	88	14	70-130/30
75-00-3	Chloroethane	ND		250	231	92	230	92	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* a	ND	0* a	nc	70-130/30
67-66-3	Chloroform	ND		250	256	102	261	104	2	70-130/30
74-87-3	Chloromethane	ND		250	237	95	239	96	1	70-130/30
95-49-8	o-Chlorotoluene	ND		250	251	100	243	97	3	70-130/30
106-43-4	p-Chlorotoluene	ND		250	254	102	249	100	2	70-130/30
124-48-1	Dibromochloromethane	ND		250	231	92	198	79	15	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	230	92	223	89	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	228	91	219	88	4	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	207	83	205	82	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	214	86	201	80	6	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	261	104	314	126	18	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	270	108	236	94	13	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	290	116	278	111	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	250	100	278	111	11	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	280	112	278	111	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	246	98	250	100	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	228	91	207	83	10	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	263	105	256	102	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	288	115	235	94	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	271	108	271	108	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	263	105	304	122	14	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1230	98	1270	102	3	70-130/30
97-63-2	Ethyl methacrylate	ND		250	286	114	320	128	11	72-139/30
100-41-4	Ethylbenzene	ND		250	225	90	216	86	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	180	72	173	69* a	4	70-130/30
591-78-6	2-Hexanone	ND		250	274	110	255	102	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	274	110	264	106	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	236	94	237	95	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	16.6		250	316	120	348	133* a	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	338	135* a	324	130	4	70-130/30
74-95-3	Methylene bromide	ND		250	246	98	261	104	6	70-130/30
75-09-2	Methylene chloride	ND		250	287	115	278	111	3	70-130/30
91-20-3	Naphthalene	ND		250	244	98	231	92	5	70-130/30
103-65-1	n-Propylbenzene	ND		250	264	106	254	102	4	70-130/30
100-42-5	Styrene	ND		250	258	103	211	84	20	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	225	90	203	81	10	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	222	89	231	92	4	70-130/30
127-18-4	Tetrachloroethene	ND		250	235	94	188	75	22	70-130/30
108-88-3	Toluene	ND		250	261	104	277	111	6	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	212	85	198	79	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	211	84	196	78	7	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	267	107	234	94	13	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	224	90	255	102	13	70-130/30
79-01-6	Trichloroethene	ND		250	229	92	226	90	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	295	118	284	114	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	221	88	250	100	12	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	224	90	225	90	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	232	93	228	91	2	70-130/30
108-05-4	Vinyl Acetate	ND		250	305	122	398	159* a	26	70-130/30
75-01-4	Vinyl chloride	ND		250	237	95	228	91	4	70-130/30
	m,p-Xylene	ND		500	554	111	455	91	20	70-130/30
95-47-6	o-Xylene	ND		250	289	116	238	95	19	70-130/30
1330-20-7	Xylene (total)	ND		750	844	113	693	92	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17633-1

CAS No.	Surrogate Recoveries	MS	MSD	MC17633-1	Limits
1868-53-7	Dibromofluoromethane	89%	92%	97%	70-130%
2037-26-5	Toluene-D8	88%	101%	97%	70-130%
460-00-4	4-Bromofluorobenzene	104%	105%	95%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Ontside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSK2189-CC2177	Injection Date:	01/22/13
Lab File ID:	K66660.D	Injection Time:	08:35
Instrument ID:	GCMSK	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	192025	8.81	299925	9.66	136059	12.92	140098	15.48	44542	6.40
Upper Limit [a]	384050	9.31	599850	10.16	272118	13.42	280196	15.98	89084	6.90
Lower Limit [b]	96013	8.31	149963	9.16	68030	12.42	70049	14.98	22271	5.90
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2189-BS	150358	8.81	236966	9.66	114117	12.92	117257	15.48	29691	6.41
MSK2189-MB	139578	8.82	221903	9.66	97414	12.92	108506	15.48	24386	6.41
MC17633-9	149439	8.82	233763	9.67	100874	12.92	107991	15.48	22167[c]	6.41
MC17633-5	142327	8.82	225796	9.66	96519	12.92	104773	15.48	23303	6.40
MC17633-2	133003	8.82	214101	9.66	94188	12.92	99511	15.48	19905[c]	6.40
ZZZZZZ	122772	8.82	200256	9.66	88912	12.92	96025	15.48	26199	6.40
ZZZZZZ	118954	8.81	196001	9.66	88200	12.92	92261	15.48	26932	6.40
ZZZZZZ	135814	8.81	212274	9.66	96886	12.92	100434	15.48	20123[c]	6.40
MC17565-6	129581	8.81	206286	9.66	94152	12.92	100471	15.48	23951	6.40
ZZZZZZ	130749	8.81	206057	9.66	94741	12.92	105099	15.48	19245[c]	6.40
ZZZZZZ	136503	8.82	210247	9.66	94542	12.92	101438	15.48	22151[c]	6.40
ZZZZZZ	133927	8.81	210187	9.66	93874	12.92	97462	15.48	21028[c]	6.40
MC17565-6MS	132546	8.81	208478	9.66	101277	12.92	106375	15.48	20887[c]	6.41
MC17565-6MSD	138334	8.81	217955	9.66	106144	12.92	110222	15.48	25060	6.41
ZZZZZZ	139672	8.81	223031	9.66	99885	12.92	106600	15.48	21619[c]	6.40
MC17633-3	135337	8.81	217915	9.66	96039	12.92	103746	15.48	20255[c]	6.40
MC17633-4	131365	8.82	211059	9.66	94054	12.92	100662	15.48	22070[c]	6.40
ZZZZZZ	130664	8.81	210290	9.66	90603	12.92	95688	15.48	22661	6.40
ZZZZZZ	134931	8.81	209046	9.66	99172	12.92	109709	15.48	24029	6.41
MC17633-7	138260	8.81	216902	9.66	102499	12.92	110556	15.48	27399	6.41
ZZZZZZ	142978	8.81	213173	9.66	103256	12.92	111844	15.48	28140	6.41
MC17633-8	140323	8.81	211007	9.66	98482	12.92	109518	15.48	23169	6.40

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits. Target analytes not associated with this internal standard.

Volatile Internal Standard Area Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1824-CC1739	Injection Date:	01/25/13
Lab File ID:	M53685.D	Injection Time:	08:24
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	118871	9.36	178351	10.24	112741	13.52	130740	16.08	53575	6.86
Upper Limit [a]	237742	9.86	356702	10.74	225482	14.02	261480	16.58	107150	7.36
Lower Limit [b]	59436	8.86	89176	9.74	56371	13.02	65370	15.58	26788	6.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1824-BS	118062	9.36	190648	10.24	111020	13.52	128658	16.08	51434	6.86
MSM1824-BSD	119560	9.36	193762	10.24	96893	13.52	125158	16.08	52118	6.86
MSM1824-MB	115975	9.36	186664	10.24	103939	13.52	131964	16.08	58412	6.86
ZZZZZZ	116646	9.36	172128	10.24	101349	13.52	123828	16.08	51786	6.86
ZZZZZZ	112742	9.36	174545	10.24	95190	13.52	125698	16.08	47384	6.85
ZZZZZZ	114600	9.36	169983	10.24	93037	13.52	126988	16.08	53646	6.86
ZZZZZZ	114835	9.36	185155	10.24	94153	13.52	127887	16.08	45275	6.86
MC17633-1	117426	9.36	186014	10.24	103252	13.52	126712	16.08	53764	6.86
ZZZZZZ	114806	9.36	174081	10.24	93255	13.52	120597	16.08	46164	6.85
ZZZZZZ	109667	9.36	183993	10.24	107074	13.52	118881	16.08	51825	6.85
ZZZZZZ	113470	9.36	186502	10.24	104750	13.52	120533	16.08	48736	6.86
ZZZZZZ	112877	9.35	183673	10.24	107392	13.52	128533	16.08	53051	6.86
ZZZZZZ	115881	9.36	177418	10.24	88232	13.52	130887	16.08	55870	6.86
MC17633-1MS	116950	9.36	192627	10.24	100432	13.52	134327	16.08	47407	6.85
MC17633-1MSD	117246	9.36	183464	10.24	119111	13.52	133610	16.08	47429	6.86
ZZZZZZ	122438	9.36	186640	10.24	110665	13.52	130826	16.08	59991	6.85
ZZZZZZ	120356	9.36	186580	10.24	89622	13.52	124272	16.08	54855	6.86
ZZZZZZ	117525	9.36	188551	10.24	95883	13.52	132247	16.08	53865	6.85

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Diflnorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17633-1	M53694.D	97.0	97.0	95.0
MC17633-2	K66667.D	114.0	107.0	113.0
MC17633-3	K66679.D	110.0	107.0	112.0
MC17633-4	K66680.D	113.0	108.0	112.0
MC17633-5	K66666.D	110.0	106.0	114.0
MC17633-7	K66683.D	105.0	112.0	118.0
MC17633-8	K66686.D	108.0	113.0	111.0
MC17633-9	K66665.D	106.0	106.0	115.0
MC17565-6MS	K66676.D	101.0	112.0	115.0
MC17565-6MSD	K66677.D	100.0	112.0	114.0
MC17633-1MS	M53700.D	89.0	88.0	104.0
MC17633-1MSD	M53701.D	92.0	101.0	105.0
MSK2189-BS	K66661.D	100.0	113.0	117.0
MSK2189-MB	K66664.D	108.0	107.0	111.0
MSM1824-BS	M53686.D	98.0	97.0	102.0
MSM1824-BSD	M53687.D	97.0	96.0	93.0
MSM1824-MB	M53689.D	99.0	95.0	98.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Snmmaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31743-MB	W8783.D	1	01/21/13	NS	01/19/13	OP31743	MSW414

The QC reported here applies to the following samples: Method: SW846 8270C

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31743-MB	W8783.D	1	01/21/13	NS	01/19/13	OP31743	MSW414

The QC reported here applies to the following samples: Method: SW846 8270C

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	35%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	70%	15-110%
4165-60-0	Nitrobenzene-d5	69%	30-130%
321-60-8	2-Fluorobipbenyl	65%	30-130%
1718-51-0	Terphenyl-d14	78%	30-130%

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

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31744-MB	U11844.D	1	01/21/13	NS	01/19/13	OP31744	MSU616

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	35%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	60%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	76%	30-130%
1718-51-0	Terphenyl-d14	82%	30-130%

Blank Spike Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31743-BS	W8784.D	1	01/21/13	NS	01/19/13	OP31743	MSW414

The QC reported here applies to the following samples: Method: SW846 8270C

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	41.4	41	30-130
95-57-8	2-Chlorophenol	100	69.7	70	30-130
59-50-7	4-Chloro-3-methyl phenol	100	75.5	76	30-130
120-83-2	2,4-Dichlorophenol	100	79.1	79	30-130
105-67-9	2,4-Dimethylphenol	100	53.5	54	30-130
51-28-5	2,4-Dinitrophenol	100	82.9	83	30-130
534-52-1	4,6-Dinitro-o-cresol	100	85.9	86	30-130
95-48-7	2-Methylphenol	100	63.4	63	30-130
	3&4-Methylphenol	200	119	60	30-130
88-75-5	2-Nitrophenol	100	80.6	81	30-130
100-02-7	4-Nitrophenol	100	38.6	39	30-130
87-86-5	Pentachlorophenol	100	90.3	90	30-130
108-95-2	Phenol	100	34.7	35	30-130
95-95-4	2,4,5-Trichlorophenol	100	85.5	86	30-130
88-06-2	2,4,6-Trichlorophenol	100	86.9	87	30-130
62-53-3	Aniline	50	19.5	39* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	41.6	83	40-140
85-68-7	Butyl benzyl phthalate	50	40.3	81	40-140
100-51-6	Benzyl Alcohol	50	34.9	70	40-140
91-58-7	2-Chloronaphthalene	50	41.9	84	40-140
106-47-8	4-Chloroaniline	50	27.5	55	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	35.9	72	40-140
111-44-4	bis(2-Chloroethyl)ether	50	39.3	79	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	46.2	92	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	44.4	89	40-140
122-66-7	1,2-Diphenylhydrazine	50	39.5	79	40-140
121-14-2	2,4-Dinitrotoluene	50	45.8	92	40-140
606-20-2	2,6-Dinitrotoluene	50	43.8	88	40-140
91-94-1	3,3'-Dichlorobenzidine	50	30.9	62	40-140
132-64-9	Dibenzofuran	50	39.4	79	40-140
84-74-2	Di-n-butyl phthalate	50	40.0	80	40-140
117-84-0	Di-n-octyl phthalate	50	44.9	90	40-140
84-66-2	Diethyl phthalate	50	41.3	83	40-140
131-11-3	Dimethyl phthalate	50	33.3	67	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	41.7	83	40-140
118-74-1	Hexachlorobenzene	50	44.1	88	40-140

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31743-BS	W8784.D	1	01/21/13	NS	01/19/13	OP31743	MSW414

The QC reported here applies to the following samples: Method: SW846 8270C

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	22.9	46	40-140
67-72-1	Hexachloroethane	50	39.6	79	40-140
78-59-1	Isophorone	50	43.7	87	40-140
88-74-4	2-Nitroaniline	50	43.8	88	40-140
99-09-2	3-Nitroaniline	50	28.7	57	40-140
100-01-6	4-Nitroaniline	50	37.7	75	40-140
98-95-3	Nitrobenzene	50	40.9	82	40-140
62-75-9	n-Nitrosodimethylamine	50	26.3	53	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	44.9	90	40-140
86-30-6	N-Nitrosodiphenylamine	50	40.7	81	40-140
110-86-1	Pyridine	50	21.0	42	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	45%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	92%	15-110%
4165-60-0	Nitrobenzene-d5	82%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	85%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31744-BS	U11845.D	1	01/21/13	NS	01/19/13	OP31744	MSU616

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	43.6	87	40-140
208-96-8	Acenaphthylene	50	32.4	65	40-140
120-12-7	Anthracene	50	42.9	86	40-140
56-55-3	Benzo(a)anthracene	50	44.6	89	40-140
50-32-8	Benzo(a)pyrene	50	41.0	82	40-140
205-99-2	Benzo(b)fluoranthene	50	41.7	83	40-140
191-24-2	Benzo(g,h,i)perylene	50	43.6	87	40-140
207-08-9	Benzo(k)fluoranthene	50	45.4	91	40-140
218-01-9	Chrysene	50	43.8	88	40-140
53-70-3	Dibenzo(a,h)anthracene	50	43.2	86	40-140
206-44-0	Fluoranthene	50	44.6	89	40-140
86-73-7	Fluorene	50	45.2	90	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	42.5	85	40-140
90-12-0	1-Methylnaphthalene	50	42.9	86	40-140
91-57-6	2-Methylnaphthalene	50	40.9	82	40-140
85-01-8	Phenanthrene	50	45.0	90	40-140
129-00-0	Pyrene	50	44.8	90	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	44%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	76%	15-110%
4165-60-0	Nitrobenzene-d5	76%	30-130%
321-60-8	2-Fluorobiphenyl	86%	30-130%
1718-51-0	Terphenyl-d14	86%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31743-MS	W8785.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
OP31743-MSD	W8786.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
MC17700-4	W8787.D	1	01/21/13	NS	01/19/13	OP31743	MSW414

The QC reported here applies to the following samples: Method: SW846 8270C

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	MC17700-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	38.9	39	29.5	30	27* [a]	30-130/20
95-57-8	2-Chlorophenol	ND		100	56.5	57	45.7	46	21* [a]	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	68.2	68	55.3	55	21* [a]	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	66.9	67	52.5	53	24* [a]	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	46.0	46	36.2	36	24* [a]	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	78.5	79	77.5	78	1	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	78.8	79	80.0	80	2	30-130/20
95-48-7	2-Methylphenol	ND		100	52.6	53	40.5	41	26* [a]	30-130/20
	3&4-Methylphenol	ND		200	101	51	75.8	38	29* [a]	30-130/20
88-75-5	2-Nitrophenol	ND		100	68.2	68	56.5	57	19	30-130/20
100-02-7	4-Nitrophenol	ND		100	36.0	36	30.2	30	18	30-130/20
87-86-5	Pentachlorophenol	ND		100	83.5	84	83.2	83	0	30-130/20
108-95-2	Phenol	ND		100	28.5	29* [b]	19.8	20* [b]	36* [a]	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	75.3	75	62.2	62	19	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	76.0	76	62.1	62	20	30-130/20
62-53-3	Aniline	ND		50	16.1	32* [c]	14.2	28* [c]	13	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	37.5	75	34.3	69	9	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	36.5	73	34.6	69	5	40-140/20
100-51-6	Benzyl Alcohol	ND		50	29.0	58	23.3	47	22* [a]	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	35.6	71	29.4	59	19	40-140/20
106-47-8	4-Chloroaniline	ND		50	24.5	49	22.5	45	9	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	30.4	61	24.5	49	21* [a]	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	32.1	64	27.1	54	17	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	37.6	75	31.5	63	18	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	39.1	78	34.0	68	14	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	35.5	71	33.0	66	7	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	41.9	84	40.8	82	3	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	39.3	79	36.4	73	8	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	31.4	63	32.6	65	4	40-140/20
132-64-9	Dibenzofuran	ND		50	34.4	69	30.1	60	13	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	37.1	74	35.8	72	4	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	40.8	82	40.4	81	1	40-140/20
84-66-2	Diethyl phthalate	ND		50	37.0	74	35.1	70	5	40-140/20
131-11-3	Dimethyl phthalate	ND		50	30.1	60	26.7	53	12	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	39.3	79	37.4	75	5	40-140/20
118-74-1	Hexachlorobenzene	ND		50	38.9	78	37.3	75	4	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31743-MS	W8785.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
OP31743-MSD	W8786.D	1	01/21/13	NS	01/19/13	OP31743	MSW414
MC17700-4	W8787.D	1	01/21/13	NS	01/19/13	OP31743	MSW414

The QC reported here applies to the following samples: Method: SW846 8270C

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	MC17700-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	19.7	39* [b]	16.2	32* [b]	19	40-140/20
67-72-1	Hexachloroethane	ND		50	31.3	63	26.9	54	15	40-140/20
78-59-1	Isophorone	ND		50	38.5	77	31.2	62	21* [a]	40-140/20
88-74-4	2-Nitroaniline	ND		50	39.4	79	35.5	71	10	40-140/20
99-09-2	3-Nitroaniline	ND		50	26.9	54	28.9	58	7	40-140/20
100-01-6	4-Nitroaniline	ND		50	34.3	69	34.2	68	0	40-140/20
98-95-3	Nitrobenzene	ND		50	34.2	68	28.9	58	17	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	20.6	41	17.6	35* [b]	16	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	37.9	76	31.2	62	19	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	37.2	74	35.8	72	4	40-140/20
110-86-1	Pyridine	ND		50	15.9	32* [b]	14.5	29* [b]	9	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17700-4	Limits
367-12-4	2-Fluorophenol	36%	26%	32%	15-110%
4165-62-2	Phenol-d5	28%	19%	24%	15-110%
118-79-6	2,4,6-Tribromophenol	83%	81%	64%	15-110%
4165-60-0	Nitrobenzene-d5	69%	57%	64%	30-130%
321-60-8	2-Fluorobiphenyl	68%	55%	61%	30-130%
1718-51-0	Terphenyl-d14	77%	75%	75%	30-130%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(c) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31744-MS	U11846.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
OP31744-MSD	U11847.D	1	01/21/13	NS	01/19/13	OP31744	MSU616
MC17700-5	U11848.D	1	01/21/13	NS	01/19/13	OP31744	MSU616

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-7, MC17633-8

CAS No.	Compound	MC17700-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	39.4	79	34.3	69	14	40-140/20
208-96-8	Acenaphthylene	ND		50	28.7	57	24.9	50	14	40-140/20
120-12-7	Anthracene	ND		50	39.8	80	39.0	78	2	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	42.1	84	41.6	83	1	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	38.3	77	37.5	75	2	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	39.3	79	39.1	78	1	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	40.8	82	39.4	79	3	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	42.1	84	41.2	82	2	40-140/20
218-01-9	Chrysene	ND		50	41.8	84	40.7	81	3	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	40.6	81	39.5	79	3	40-140/20
206-44-0	Fluoranthene	ND		50	42.6	85	41.4	83	3	40-140/20
86-73-7	Fluorene	ND		50	41.5	83	38.0	76	9	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.6	79	38.9	78	2	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	38.1	76	32.2	64	17	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	36.1	72	30.7	61	16	40-140/20
85-01-8	Phenanthrene	ND		50	41.5	83	40.8	82	2	40-140/20
129-00-0	Pyrene	ND		50	41.8	84	41.3	83	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17700-5	Limits
367-12-4	2-Fluorophenol	37%	27%	32%	15-110%
4165-62-2	Phenol-d5	28%	20%	24%	15-110%
118-79-6	2,4,6-Tribromophenol	71%	69%	57%	15-110%
4165-60-0	Nitrobenzene-d5	67%	56%	64%	30-130%
321-60-8	2-Fluorobiphenyl	77%	64%	70%	30-130%
1718-51-0	Terphenyl-d14	82%	81%	78%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU616-CC609	Injection Date:	01/21/13
Lab File ID:	U11836.D	Injection Time:	12:50
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	151755	3.38	366689	4.34	185621	5.76	319215	7.01	219482	9.78	434445	11.18
Upper Limit [a]	303510	3.88	733378	4.84	371242	6.26	638430	7.51	438964	10.28	868890	11.68
Lower Limit [b]	75878	2.88	183345	3.84	92811	5.26	159608	6.51	109741	9.28	217223	10.68

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31735-MB	160078	3.38	379988	4.34	196331	5.76	333504	7.01	234005	9.78	461878	11.18
OP31735-BS	160191	3.38	390459	4.35	194328	5.76	337193	7.01	223991	9.78	447338	11.19
ZZZZZZ	159619	3.38	379470	4.34	193009	5.76	330179	7.01	236310	9.78	459279	11.18
ZZZZZZ	162285	3.38	388290	4.34	199383	5.76	333909	7.01	234803	9.78	460191	11.18
ZZZZZZ	166074	3.38	393868	4.34	199700	5.76	338658	7.01	241117	9.78	469809	11.18
ZZZZZZ	161060	3.38	394559	4.35	197387	5.76	335534	7.01	237225	9.78	464300	11.18
ZZZZZZ	164796	3.38	396888	4.35	197082	5.76	339810	7.01	240058	9.78	463360	11.18
OP31744-MB	161112	3.38	395735	4.34	200950	5.76	338215	7.01	240287	9.78	473275	11.18
OP31744-BS	155385	3.38	383121	4.35	188911	5.76	329247	7.01	217151	9.78	439482	11.18
OP31744-MS	160346	3.38	391378	4.35	198258	5.76	339305	7.01	229360	9.78	458747	11.18
OP31744-MSD	149065	3.38	368135	4.35	186201	5.76	318475	7.01	214919	9.78	427349	11.18
MC17700-5	157013	3.38	384517	4.34	197892	5.76	334341	7.01	237088	9.78	459501	11.18
ZZZZZZ	150073	3.38	360420	4.34	188685	5.76	323689	7.01	228707	9.78	440636	11.18
ZZZZZZ	154839	3.38	379987	4.34	192844	5.76	323043	7.01	230819	9.78	445210	11.18
ZZZZZZ	151340	3.38	377667	4.34	192327	5.76	321888	7.01	227802	9.78	445271	11.18
ZZZZZZ	156474	3.38	385134	4.34	198911	5.76	334175	7.01	236514	9.78	459698	11.18
ZZZZZZ	155457	3.38	381444	4.34	196517	5.76	326618	7.01	231444	9.78	455513	11.18
ZZZZZZ	156981	3.38	387780	4.34	199747	5.76	332214	7.01	238908	9.78	458095	11.18
ZZZZZZ	155366	3.38	382432	4.34	191018	5.76	332270	7.01	235520	9.78	452972	11.18
MC17633-1	155898	3.38	378519	4.34	189629	5.76	322482	7.01	233882	9.78	447993	11.18
MC17633-2	153880	3.38	385437	4.34	196768	5.76	335026	7.01	238318	9.78	458166	11.18
MC17633-3	159940	3.38	394466	4.34	197805	5.76	341727	7.01	241061	9.78	462837	11.18
MC17633-4	158533	3.38	394995	4.34	201836	5.76	334781	7.01	241693	9.78	466769	11.18
MC17633-7	151327	3.38	381969	4.34	190346	5.76	332059	7.01	239951	9.78	458368	11.18
MC17633-8	152984	3.38	372833	4.35	193131	5.76	343769	7.01	247630	9.78	476204	11.18
ZZZZZZ	157250	3.38	392053	4.34	204032	5.76	340255	7.01	245998	9.78	472090	11.18
ZZZZZZ	155864	3.38	387559	4.34	200786	5.76	335627	7.01	242026	9.78	460455	11.18
ZZZZZZ	151323	3.38	381261	4.34	196458	5.76	329843	7.01	234314	9.78	453554	11.18
ZZZZZZ	160836	3.38	398672	4.34	204539	5.76	345679	7.01	249037	9.78	469549	11.18

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphtheue-D10
IS 4 = Phenanthreue-d10
IS 5 = Chrysene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU616-CC609	Injection Date:	01/21/13
Lab File ID:	U11836.D	Injection Time:	12:50
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW414-CC399	Injection Date:	01/21/13
Lab File ID:	W8782.D	Injection Time:	14:32
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	6730I	4.15	259252	5.15	161990	6.59	287453	7.96	356586	10.91	316099	12.50
Upper Limit [a]	134602	4.65	518504	5.65	323980	7.09	574906	8.46	713172	11.41	632198	13.00
Lower Limit [b]	33651	3.65	129626	4.65	80995	6.09	143727	7.46	178293	10.41	158050	12.00
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31743-MB	69736	4.15	267267	5.15	166274	6.59	306730	7.96	354781	10.91	342518	12.50
OP31743-BS	69291	4.15	267762	5.15	163098	6.59	289880	7.96	336349	10.91	310476	12.50
OP31743-MS	74962	4.15	285740	5.15	177533	6.59	314928	7.96	371045	10.91	350796	12.50
OP31743-MSD	69733	4.15	270392	5.15	166910	6.59	295986	7.96	352300	10.91	323214	12.50
MC17700-4	68933	4.15	267502	5.15	162255	6.59	299419	7.96	337673	10.91	321860	12.50
ZZZZZZ	71912	4.15	285264	5.15	177117	6.59	316102	7.96	367977	10.91	349136	12.50
ZZZZZZ	71143	4.15	276443	5.15	174159	6.59	311866	7.96	367048	10.91	341115	12.50
MC17633-1	71233	4.15	274447	5.15	176016	6.59	317783	7.96	377009	10.91	354982	12.50
MC17633-2	67799	4.15	265805	5.15	166024	6.59	298434	7.96	355582	10.91	339813	12.50
MC17633-3	72938	4.15	280392	5.15	177818	6.59	328048	7.96	390848	10.91	372705	12.50
MC17633-4	72469	4.15	278462	5.15	174314	6.59	316862	7.96	367519	10.91	349888	12.50
MC17633-7	71050	4.15	276439	5.15	176316	6.59	320330	7.96	368173	10.91	352114	12.50
MC17633-8	73300	4.15	282353	5.15	180818	6.59	330838	7.96	394238	10.91	379925	12.50
ZZZZZZ	71925	4.15	273777	5.15	168886	6.59	310556	7.96	364043	10.91	341766	12.50
ZZZZZZ	71371	4.15	274917	5.15	170733	6.59	309529	7.96	366549	10.91	345401	12.50
ZZZZZZ	67333	4.15	261118	5.15	162025	6.59	298344	7.96	346013	10.91	332558	12.50
ZZZZZZ	75254	4.15	291651	5.15	184510	6.59	339094	7.96	395535	10.91	368771	12.50
ZZZZZZ	68677	4.15	263494	5.15	167128	6.59	304683	7.96	358400	10.91	344595	12.50
ZZZZZZ	69968	4.15	277112	5.15	187033	6.60	336476	7.96	381483	10.91	367578	12.50
ZZZZZZ	75910	4.15	291055	5.15	182503	6.59	327874	7.96	375987	10.91	360213	12.50
ZZZZZZ	112216	4.16	432635	5.15	263705	6.60	477413	7.96	571569	10.75	781739[c]	12.23
ZZZZZZ	85557	4.15	334800	5.15	210398	6.59	386358	7.96	455165	10.91	429815	12.50

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

7.4.2

Semivolatile Surrogate Recovery Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17633-1	W8795.D	30.0	25.0	80.0	67.0	62.0	71.0
MC17633-2	W8796.D	28.0	22.0	69.0	60.0	56.0	81.0
MC17633-3	W8797.D	20.0	15.0	73.0	48.0	44.0	66.0
MC17633-4	W8798.D	23.0	17.0	67.0	44.0	39.0	43.0
MC17633-7	W8799.D	34.0	30.0	78.0	77.0	68.0	60.0
MC17633-8	W8800.D	43.0	33.0	93.0	75.0	65.0	59.0
OP31743-BS	W8784.D	45.0	33.0	92.0	82.0	78.0	85.0
OP31743-MB	W8783.D	35.0	27.0	70.0	69.0	65.0	78.0
OP31743-MS	W8785.D	36.0	28.0	83.0	69.0	68.0	77.0
OP31743-MSD	W8786.D	26.0	19.0	81.0	57.0	55.0	75.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17633-1	U11856.D	30.0	25.0	68.0	66.0	75.0	78.0
MC17633-2	U11857.D	29.0	22.0	60.0	60.0	68.0	85.0
MC17633-3	U11858.D	22.0	17.0	64.0	50.0	57.0	71.0
MC17633-4	U11859.D	24.0	18.0	61.0	46.0	50.0	50.0
MC17633-7	U11860.D	34.0	30.0	67.0	71.0	80.0	69.0
MC17633-8	U11861.D	36.0	32.0	76.0	72.0	76.0	68.0
OP31744-BS	U11845.D	44.0	33.0	76.0	76.0	86.0	86.0
OP31744-MB	U11844.D	35.0	27.0	60.0	67.0	76.0	82.0
OP31744-MS	U11846.D	37.0	28.0	71.0	67.0	77.0	82.0
OP31744-MSD	U11847.D	27.0	20.0	69.0	56.0	64.0	81.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-MB	YZ77994.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-6, MC17633-7, MC17633-8, MC17633-10

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	128%	36-173%
460-00-4	Bromofluorobenzene (S)	117%	36-173%

8.1.1

8

Blank Spike Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-BS	YZ77995.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-6, MC17633-7, MC17633-8, MC17633-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.071	100	60-140
106-93-4	1,2-Dibromoethane	0.071	0.076	107	60-140

CAS No.	Surrogate Recoverics	BSP	Limits
460-00-4	Bromofluorobenzene (S)	134%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31739-MS	YZ77996.D	1	0I/22/13	CZ	01/19/13	OP31739	GYZ7023
OP31739-MSD	YZ77997.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023
MC17700-2	YZ77998.D	1	01/22/13	CZ	01/19/13	OP31739	GYZ7023

The QC reported here applies to the following samples: Method: SW846 8011

MC17633-1, MC17633-2, MC17633-3, MC17633-4, MC17633-6, MC17633-7, MC17633-8, MC17633-10

CAS No.	Compound	MC17700-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.073	103	0.077	108	5	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.078	110	0.085	120	9	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17700-2	Limits
460-00-4	Bromofluorobenzene (S)	127%	135%	137%	36-173%
460-00-4	Bromofluorobenzene (S)	113%	124%	124%	36-173%

8.3.1

8

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17633-1	YZ78006.D	130.0	107.0
MC17633-2	YZ78007.D	93.0	79.0
MC17633-3	YZ78008.D	128.0	108.0
MC17633-4	YZ78009.D	136.0	115.0
MC17633-6	YZ78010.D	139.0	120.0
MC17633-7	YZ78011.D	115.0	123.0
MC17633-8	YZ78012.D	119.0	102.0
MC17633-10	YZ78013.D	143.0	120.0
OP31739-BS	YZ77995.D	134.0	121.0
OP31739-MB	YZ77994.D	128.0	117.0
OP31739-MS	YZ77996.D	127.0	113.0
OP31739-MSD	YZ77997.D	135.0	124.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Ceutral Avenue, Roxana, IL

Check Std:	GYZ7023-CC7022	Injection Date:	01/22/13
Lab File ID:	YZ77993A.D	Injection Time:	02:49
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31739-MB	YZ77994.D	01/22/13	03:14	3.48	3.76
OP31739-BS	YZ77995.D	01/22/13	03:40	3.48	3.76
OP31739-MS	YZ77996.D	01/22/13	04:05	3.48	3.76
OP31739-MSD	YZ77997.D	01/22/13	04:31	3.48	3.76
MC17700-2	YZ77998.D	01/22/13	04:55	3.48	3.76
ZZZZZZ	YZ77999.D	01/22/13	05:21	3.48	3.76
ZZZZZZ	YZ78000.D	01/22/13	05:46	3.48	3.76
ZZZZZZ	YZ78001.D	01/22/13	06:11	3.48	3.76
ZZZZZZ	YZ78002.D	01/22/13	06:36	3.48	3.76
ZZZZZZ	YZ78003.D	01/22/13	07:02	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17633
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7023-CC7022	Injection Date:	01/22/13
Lab File ID:	YZ78004.D	Injection Time:	07:27
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.48	3.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	SI [b] RT
ZZZZZZ	YZ78005.D	01/22/13	07:52	3.48	3.76
MC17633-1	YZ78006.D	01/22/13	08:18	3.48	3.76
MC17633-2	YZ78007.D	01/22/13	08:43	3.48	3.76
MC17633-3	YZ78008.D	01/22/13	09:08	3.48	3.76
MC17633-4	YZ78009.D	01/22/13	09:34	3.48	3.76
MC17633-6	YZ78010.D	01/22/13	09:58	3.48	3.76
MC17633-7	YZ78011.D	01/22/13	10:23	3.48	3.76
MC17633-8	YZ78012.D	01/22/13	10:48	3.48	3.76
MC17633-10	YZ78013.D	01/22/13	11:14	3.48	3.76
GYZ7023-ECC702	YZ78014.D	01/22/13	11:39	3.48	3.76

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17672

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/20/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW14-ROX-011813	P66-ROX-011813
P66-ROX-011813-EB	T12-ROX-011813
TB-011813-HCL	TB-011813-ST

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. PAHs were detected in the equipment blank and method blank. Sample T12-ROX-011813 was diluted due to high levels of VOC target analytes. Additionally, the continuing calibration verification for 1,4-dioxane exceeded 50 percent difference (%D). Professional judgment was used to qualify 2-butanone (MEK) in sample T12-ROX-011813. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated the cooler was received by the laboratory at a temperature of 0.8ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/ Amount
P66-ROX-011813-EB	PAHs	Benzo(a)anthracene	0.24 ug/L
P66-ROX-011813-EB	PAHs	Benzo(a)pyrene	0.12 ug/L
P66-ROX-011813-EB	PAHs	Benzo(b)fluoranthene	0.21 ug/L
P66-ROX-011813-EB	PAHs	Benzo(g,h,i)perylene	0.27 ug/L
P66-ROX-011813-EB	PAHs	Benzo(k)fluoranthene	0.28 ug/L

Blank ID	Parameter	Analyte	Concentration/ Amount
P66-ROX-011813-EB	PAHs	Chrysene	0.19 ug/L
P66-ROX-011813-EB	PAHs	Dibenzo(a,h)anthracene	0.29 ug/L
P66-ROX-011813-EB	PAHs	Indeno(1,2,3-cd)pyrene	0.27 ug/L
P66-ROX-011813-EB	PAHs	1-Methylnaphthalene	0.31 ug/L
P66-ROX-011813-EB	PAHs	2-Methylnaphthalene	0.21 ug/L
P66-ROX-011813-EB	PAHs	Phenanthrene	0.040 ug/L
OP31754-MB	PAHs	Anthracene	0.031 ug/L
OP31754-MB	PAHs	2-Methylnaphthalene	0.052 ug/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P66-ROX-011813	PAHs	Anthracene	-	**U**
P66-ROX-011813	PAHs	Benzo(b)fluoranthene	-	**U**
T12-ROX-011813	PAHs	Anthracene	0.13 ug/L	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSM1822-BS	VOCs	Acrolein	**42**	NA	70-130
MSM1822-BS	VOCs	2-Chloroethyl vinyl ether	**31**	NA	70-130
MSM1824-BS/BSD	VOCs	Acetone	**133**/129	3	70-130/25
MSM1824-BS/BSD	VOCs	Acrolein	76/**65**	16	70-130/25
MSM1824-BS/BSD	VOCs	Acrylonitrile	125/**147**	16	70-130/25
MSM1824-BS/BSD	VOCs	2-Butanone (MEK)	116/**138**	18	70-130/25
MSM1824-BS/BSD	VOCs	1,4-Dioxane	**135/133**	2	70-130/25
MSM1824-BS/BSD	VOCs	2-Hexanone	129/**132**	3	70-130/25
MSM1824-BS/BSD	VOCs	4-Methyl-2-pentanone (MIBK)	**142/144**	1	70-130/25
MSM1824-BS/BSD	VOCs	Vinyl acetate	**147/139**	6	70-130/25
OP31753-BS	SVOCs	Aniline	**36**	NA	40-140
OP31753-BS	SVOCs	Dimethyl phthalate	**31**	NA	40-140

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
OP31753-BS	SVOCs	Hexachlorocyclopentadiene	**33**	NA	40-140
OP31753-BS	SVOCs	Pyridine	**35**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS MSM1822-BS and OP31753-BS were associated with trip/equipment blank quality control samples and are not qualified.

Sample ID	Parameter	Analyte	Qualification
T12-ROX-011813	VOCs	Acrolein	**UJ**
T12-ROX-011813	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW14-ROX-011813	VOCs	Acrolein	**UJ**
P66-ROX-011813	VOCs	Acrolein	**UJ**
MW14-ROX-011813	SVOCs	Anline	**UJ**
MW14-ROX-011813	SVOCs	Dimethyl phthalate	**UJ**
MW14-ROX-011813	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW14-ROX-011813	SVOCs	Pyridine	**UJ**
P66-ROX-011813	SVOCs	Anline	**UJ**
P66-ROX-011813	SVOCs	Dimethyl phthalate	**UJ**
P66-ROX-011813	SVOCs	Hexachlorocyclopentadiene	**UJ**
P66-ROX-011813	SVOCs	Pyridine	**UJ**
T12-ROX-011813	SVOCs	Anline	**UJ**
T12-ROX-011813	SVOCs	Dimethyl phthalate	**UJ**
T12-ROX-011813	SVOCs	Hexachlorocyclopentadiene	**UJ**
T12-ROX-011813	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification recovery for 1,4-dioxane exceeded 50 percent difference (%D); 1,4-dioxane in associated samples were qualified as summarized in the following table.

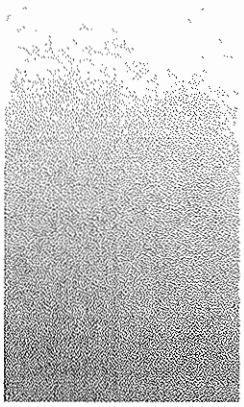
Sample ID	Parameter	Analyte	Qualification
T12-ROX-011813	VOCs	1,4-Dioxane	**UJ**

Additionally, professional judgment was used to qualify the common laboratory contaminant 2-butanone (MEK) reported at concentrations more than two times (>2X) the reporting limit (RL), since 2-butanone (MEK) is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
T12-ROX-011813	2-Butanone (MEK)	79.5 ug/L	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

02/04/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17672

Sampling Date: 01/18/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **97**

Reviewed on 2/20/2013

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **9**
4.1: MC17672-1: MW14-ROX-011813 10
4.2: MC17672-2: P66-ROX-011813 17
4.3: MC17672-3: P66-ROX-011813-EB 24
4.4: MC17672-4: T12-ROX-011813 31
4.5: MC17672-5: TB-011813-HCL 38
4.6: MC17672-6: TB-011813-ST 41
Section 5: Misc. Forms **42**
5.1: Chain of Custody 43
5.2: Sample Tracking Chronicle 45
5.3: Internal Chain of Custody 47
Section 6: GC/MS Volatiles - QC Data Summaries **49**
6.1: Method Blank Summary 50
6.2: Blank Spike Summary 57
6.3: Blank Spike/Blank Spike Duplicate Summary 60
6.4: Matrix Spike/Matrix Spike Duplicate Summary 64
6.5: Internal Standard Area Summaries 71
6.6: Surrogate Recovery Summaries 74
Section 7: GC/MS Semi-volatiles - QC Data Summaries **75**
7.1: Method Blank Summary 76
7.2: Blank Spike Summary 79
7.3: Matrix Spike/Matrix Spike Duplicate Summary 82
7.4: Internal Standard Area Summaries 85
7.5: Surrogate Recovery Summaries 88
Section 8: GC Volatiles - QC Data Summaries **90**
8.1: Method Blank Summary 91
8.2: Blank Spike/Blank Spike Duplicate Summary 92
8.3: Matrix Spike/Matrix Spike Duplicate Summary 93
8.4: Surrogate Recovery Summaries 94
8.5: GC Surrogate Retention Time Summaries 95

Sample Summary

Shell Oil

Job No: MC17672

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17672-1	01/18/13	09:00 BRTC	01/19/13	AQ	Ground Water	MW14-ROX-011813
MC17672-2	01/18/13	11:10 BRTC	01/19/13	AQ	Ground Water	P66-ROX-011813
MC17672-3	01/18/13	11:25 BRTC	01/19/13	AQ	Equipment Blank	P66-ROX-011813-EB
MC17672-4	01/18/13	14:05 BRTC	01/19/13	AQ	Ground Water	T12-ROX-011813
MC17672-5	01/18/13	00:00 BRTC	01/19/13	AQ	Trip Blank Water	TB-011813-HCL
MC17672-6	01/18/13	00:00 BRTC	01/19/13	AQ	Trip Blank Water	TB-011813-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC17672
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	**Report Date**	2/4/2013 5:13:59 PM

4 Sample(s), 2 Trip Blank(s) were collected on 01/18/2013 and were received at Accutest on 01/19/2013 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of MC17672. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSM1822

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17646-2MS, MC17646-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Continuing calibration check standard MSM1822-CC1739 for 1,4-dioxane exceeds 50% Difference (response bias high). Associated sample is non-detect for this compound.

Matrix AQ **Batch ID:** MSM1823

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17719-4MS, MC17719-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix AQ **Batch ID:** MSM1824

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17633-1MS, MC17633-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,4-Dioxane, Acetone, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplicate Recovery(s) for Acrolein, 2-Butanone (MEK), 1,4-Dioxane, 2-Hexanone, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone (MIBK), Acrylonitrile are outside control limits. Outside control limits due to possible matrix interferenec. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, Acrolein, Hexachlorobutadiene, Methyl Tert Butyl Ether, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSM1824-BS for 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.
- MSM1824-BSD for Acrylonitrile, 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP31753

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17700-7MS, MC17700-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Aniline, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for Aniline, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31754

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17700-8MS, MC17700-8MSD were used as the QC samples indicated.
- Sample(s) MC17672-2, MC17672-3, MC17672-4 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31788

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17722-3MS, MC17722-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP31788-MSD for 1,2-Dibromoethane: Outside control limits due to high level in sample relative to spike amount.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17672).

Summary of Hits

Job Number: MC17672
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/18/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17672-1	MW14-ROX-011813					
Benzene		1.7	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		1.4 J	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		3.2 J	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		1.1 J	5.0	0.64	ug/l	SW846 8260B
Isopropylbenzene		21.0	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		16.2	5.0	0.58	ug/l	SW846 8260B
Toluene		0.97 J	1.0	0.51	ug/l	SW846 8260B
m,p-Xylene		2.6	1.0	0.73	ng/l	SW846 8260B
Xylene (total)		3.0	1.0	0.58	ug/l	SW846 8260B
Acenaphthene		0.92	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.13	0.10	0.013	ug/l	SW846 8270C BY SIM
Fluorene		0.64	0.10	0.046	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		21.5	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		8.4	0.20	0.052	ug/l	SW846 8270C BY SIM
MC17672-2	P66-ROX-011813					
Benzene		89.6	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		12.9	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		22.7	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		8.7	5.0	0.64	ug/l	SW846 8260B
Ethylbenzene		1.4	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		146	5.0	0.50	ug/l	SW846 8260B
Methyl Tert Butyl Ether		104	1.0	0.41	ug/l	SW846 8260B
n-Propylbenzene		193	5.0	0.58	ug/l	SW846 8260B
Toluene		1.5	1.0	0.51	ug/l	SW846 8260B
o-Xylene		0.93 J	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		0.93 J	1.0	0.58	ug/l	SW846 8260B
Phenol		1.9 J	5.3	1.1	ug/l	SW846 8270C
Dibenzofuran		1.8 J	2.1	1.1	ug/l	SW846 8270C
Acenaphthene		0.74	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.34	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.055 JB	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.028 J	0.053	0.025	ug/l	SW846 8270C BY SIM
Fluoranthene		0.076 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		1.9	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		65.5	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		31.5	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.82	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.11	0.11	0.038	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC17672
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/18/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17672-3	P66-ROX-011813-EB					
Benzo(a)anthracene		0.24	0.053	0.032	ug/l	SW846 8270C BY SIM
Benzo(a)pyrene		0.12	0.11	0.018	ug/l	SW846 8270C BY SIM
Benzo(b)flnoranthene		0.21	0.053	0.025	ng/l	SW846 8270C BY SIM
Benzo(g,h,i)perylene		0.27	0.11	0.040	ug/l	SW846 8270C BY SIM
Benzo(k)fluoranthene		0.28	0.11	0.062	ug/l	SW846 8270C BY SIM
Chrysene		0.19	0.11	0.077	ug/l	SW846 8270C BY SIM
Dibenzo(a,h)anthracene		0.29	0.11	0.044	ng/l	SW846 8270C BY SIM
Indeno(1,2,3-cd)pyrene		0.27	0.11	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		0.3I	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.21 B	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.040 J	0.053	0.013	ug/l	SW846 8270C BY SIM
MC17672-4	T12-ROX-0118I3					
Benzeue		2030	25	12	ng/l	SW846 8260B
2-Butanone (MEK)		79.5	25	12	ug/l	SW846 8260B
n-Butylbenzene		5.6 J	25	3.0	ng/l	SW846 8260B
sec-Butylbenzene		3.6 J	25	2.8	ug/l	SW846 8260B
Ethylbenzene		426	5.0	2.5	ug/l	SW846 8260B
Isopropylbenzeue		31.0	25	2.5	ug/l	SW846 8260B
Naphthalene		129	25	2.5	ug/l	SW846 8260B
n-Propylbenzene		46.6	25	2.9	ug/l	SW846 8260B
Toluene		184	5.0	2.5	ug/l	SW846 8260B
1,2,4-Trimethylbenzeue		420	25	1.7	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		40.7	25	2.3	ug/l	SW846 8260B
m,p-Xylene		1110	5.0	3.7	ug/l	SW846 8260B
o-Xylene		25.2	5.0	2.9	ug/l	SW846 8260B
Xylene (total)		1130	5.0	2.9	ug/l	SW846 8260B
2,4-Dimethylphenol		6.5 J	11	1.6	ug/l	SW846 8270C
Phenol		26.5	5.3	1.1	ug/l	SW846 8270C
Acenaphthene		0.50	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.093 J	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.13 B	0.11	0.019	ug/l	SW846 8270C BY SIM
Fluorene		0.46	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		24.1	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		32.2	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		1.I	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.067 J	0.11	0.037	ug/l	SW846 8270C BY SIM
MC17672-5	TB-011813-HCL					

No hits reported in this sample.

Summary of Hits

Job Number: MC17672
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/18/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
MC17672-6	TB-011813-ST					

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW14-ROX-011813		
Lab Sample ID:	MC17672-1	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53696.D	1	01/25/13	AMY	n/a	n/a	MSM1824
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	1.7	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	1.4	5.0	0.61	ug/l	J
135-98-8	sec-Butylbenzene	3.2	5.0	0.55	ug/l	J
98-06-6	tert-Butylbenzene	1.1	5.0	0.64	ug/l	J
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW14-ROX-011813		
Lab Sample ID:	MC17672-1	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	21.0	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	16.2	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	0.97	1.0	0.51	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	2.6	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	3.0	1.0	0.58	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:	MW14-ROX-011813		
Lab Sample ID:	MC17672-1	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethaue	103%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	110%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW14-ROX-011813		
Lab Sample ID:	MC17672-1	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, 1L		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8828.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ng/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Metbylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitropbeuol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	J
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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:	MW14-ROX-011813		
Lab Sample ID:	MC17672-1	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ng/l	UJ
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ng/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	27%		15-110%
118-79-6	2,4,6-Tribromophenol	80%		15-110%
4165-60-0	Nitrobenzeue-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	52%		30-130%
1718-51-0	Terphenyl-d14	52%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW14-ROX-011813		
Lab Sample ID:	MC17672-1	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11913.D	1	01/23/13	NS	01/21/13	OP31754	MSU617
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.92	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.13	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.64	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	21.5	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	8.4	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	27%		15-110%
118-79-6	2,4,6-Tribromophenol	69%		15-110%
4165-60-0	Nitrobenzene-d5	58%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	62%		30-130%

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

Report of Analysis

Client Sample ID:	MW14-ROX-011813		
Lab Sample ID:	MC17672-1	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21127.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	34.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	89%		36-173%
460-00-4	Bromofluorobenzene (S)	107%		36-173%

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

Report of Analysis

Client Sample ID:	P66-ROX-011813		
Lab Sample ID:	MC17672-2	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53699.D	1	01/25/13	AMY	n/a	n/a	MSM1824
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	89.6	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	12.9	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	22.7	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	8.7	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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:	P66-ROX-011813		
Lab Sample ID:	MC17672-2	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	traus-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	1.4	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanoue	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzeue	146	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	104	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	193	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	1.5	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	0.93	1.0	0.58	ug/l	J
1330-20-7	Xylene (total)	0.93	1.0	0.58	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:	P66-ROX-011813		
Lab Sample ID:	MC17672-2	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	84%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P66-ROX-011813		
Lab Sample ID:	MC17672-2	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8829.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.75	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.59	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	1.9	5.3	1.1	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.70	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.82	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.95	ug/l	
132-64-9	Dibenzofuran	1.8	2.1	1.1	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	ug/l	

ND = Not detected MDL - Method Detection Limit
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-011813		
Lab Sample ID:	MC17672-2	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.92	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	80%		15-110%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	52%		30-130%

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

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

Report of Analysis

Client Sample ID:	P66-ROX-011813		
Lab Sample ID:	MC17672-2	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11914.D	1	01/23/13	NS	01/21/13	OP31754	MSU617
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.74	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.34	0.11	0.014	ug/l	
120-12-7	Anthracene	~~0.055~~	0.11	0.019	ng/l	JB
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	~~0.028~~	0.053	0.025	ug/l	J
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ug/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	0.076	0.11	0.035	ug/l	J
86-73-7	Fluorene	1.9	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	65.5	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	31.5	0.21	0.055	ug/l	
85-01-8	Phenanthrene	0.82	0.053	0.013	ug/l	
129-00-0	Pyrene	0.11	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		15-110%
4165-62-2	Phenol-d5	33%		15-110%
118-79-6	2,4,6-Tribromophenol	67%		15-110%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Flnorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	62%		30-130%

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:	P66-ROX-011813		
Lab Sample ID:	MC17672-2	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21128.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	35.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	94%		36-173%
460-00-4	Bromofluorobenzene (S)	116%		36-173%

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

Report of Analysis

Client Sample ID:	P66-ROX-011813-EB		
Lab Sample ID:	MC17672-3	Date Sampled:	01/18/13
Matrix:	AQ - Eqnipment Blank	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53635.D	1	01/23/13	AMY	n/a	n/a	MSM1822
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Bntylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorohenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	P66-ROX-011813-EB		
Lab Sample ID:	MC17672-3	Date Sampled:	01/18/13
Matrix:	AQ - Equipment Blank	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ng/l	
87-68-3	Hexachlorohutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ng/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ng/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ng/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

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

Report of Analysis

Client Sample ID:	P66-ROX-011813-EB		
Lab Sample ID:	MC17672-3	Date Sampled:	01/18/13
Matrix:	AQ - Equipment Blank	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P66-ROX-011813-EB		
Lab Sample ID:	MC17672-3	Date Sampled:	01/18/13
Matrix:	AQ - Equipment Blank	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8830.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.74	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.58	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylpbenol	ND	11	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.6	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.69	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ng/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.85	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.81	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.94	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	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:	P66-ROX-011813-EB		
Lab Sample ID:	MC17672-3	Date Sampled:	01/18/13
Matrix:	AQ - Equipment Blank	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.91	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		15-110%
4165-62-2	Phenol-d5	24%		15-110%
118-79-6	2,4,6-Tribromophenol	79%		15-110%
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	51%		30-130%
1718-51-0	Terphenyl-d14	69%		30-130%

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

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

Report of Analysis

Client Sample ID:	P66-ROX-011813-EB		
Lab Sample ID:	MC17672-3	Date Sampled:	01/18/13
Matrix:	AQ - Equipment Blank	Date Received:	01/19/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11915.D	1	01/23/13	NS	01/21/13	OP31754	MSU617
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	0.24	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	0.12	0.11	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	0.21	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.27	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	0.28	0.11	0.062	ug/l	
218-01-9	Chrysene	0.19	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.29	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.034	ug/l	
86-73-7	Fluorene	ND	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.27	0.11	0.048	ug/l	
90-12-0	1-Methylnaphthalene	0.31	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.21	0.21	0.055	ug/l	B
85-01-8	Phenanthrene	0.040	0.053	0.013	ug/l	J
129-00-0	Pyrene	ND	0.11	0.037	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		15-110%
4165-62-2	Phenol-d5	25%		15-110%
118-79-6	2,4,6-Tribromophenol	68%		15-110%
4165-60-0	Nitrobenzene-d5	60%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	78%		30-130%

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:	P66-ROX-011813-EB		
Lab Sample ID:	MC17672-3	Date Sampled:	01/18/13
Matrix:	AQ - Equipment Blank	Date Received:	01/19/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21129.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	36.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	86%		36-173%
460-00-4	Bromofluorobenzene (S)	108%		36-173%

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

Report of Analysis

Client Sample ID:	T12-ROX-011813		
Lab Sample ID:	MC17672-4	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53646.D	5	01/23/13	AMY	n/a	n/a	MSM1822
Run #2	M53663.D	50	01/24/13	AMY	n/a	n/a	MSM1823

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	15	ug/l	
107-02-8	Acrolein	ND	130	51	ng/l	u J
107-13-1	Acrylonitrile	ND	25	16	ug/l	
71-43-2	Benzene	2030 [a]	25	12	ug/l	
108-86-1	Bromobenzene	ND	25	3.1	ug/l	
74-97-5	Bromochloromethane	ND	25	6.3	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	2.9	ug/l	
75-25-2	Bromoform	ND	5.0	3.9	ug/l	
74-83-9	Bromomethane	ND	10	5.1	ug/l	
78-93-3	2-Butanone (MEK)	~~79.5~~	~~25~~ 250	12	ug/l	u
104-51-8	n-Butylbenzene	5.6	25	3.0	ug/l	J
135-98-8	sec-Butylbeuzene	3.6	25	2.8	ug/l	J
98-06-6	tert-Butylbenzene	ND	25	3.2	ug/l	
75-15-0	Carbon disulfide	ND	25	3.1	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	4.3	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.3	ug/l	
75-00-3	Chloroethane	ND	10	2.5	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	25	6.3	ug/l	u J
67-66-3	Chloroform	ND	5.0	2.5	ng/l	
74-87-3	Chloromethane	ND	10	3.7	ug/l	
95-49-8	o-Chlorotoluene	ND	25	3.2	ug/l	
106-43-4	p-Chlorotoluene	ND	25	2.4	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	2.6	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	4.6	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.3	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	3.2	ng/l	
75-71-8	Dichlorodiflnoromethane	ND	10	8.6	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	3.1	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	3.2	ug/l	
75-35-4	1,1-Dichloroethene	ND	5.0	2.1	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	3.2	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	4.7	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 fonnd in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	T12-ROX-011813		
Lab Sample ID:	MC17672-4	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	10	3.6	ug/l	
142-28-9	1,3-Dichloropropane	ND	25	3.2	ug/l	
594-20-7	2,2-Dichloropropane	ND	25	7.9	ug/l	
563-58-6	1,1-Dichloropropene	ND	25	4.6	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	2.2	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.98	ug/l	
123-91-1	1,4-Dioxane	ND	130	74	ug/l	UJ
97-63-2	Ethyl methacrylate	ND	25	4.1	ug/l	
100-41-4	Ethylbenzene	426	5.0	2.5	ug/l	
87-68-3	Hexachlorobutadiene	ND	25	10	ug/l	
591-78-6	2-Hexanone	ND	25	9.8	ug/l	
98-82-8	Isopropylbenzene	31.0	25	2.5	ug/l	
99-87-6	p-Isopropyltoluene	ND	25	2.9	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	2.1	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25	15	ug/l	
74-95-3	Methylene bromide	ND	25	5.5	ug/l	
75-09-2	Methylene chloride	ND	10	4.2	ug/l	
91-20-3	Naphthalene	129	25	2.5	ug/l	
103-65-1	n-Propylbenzene	46.6	25	2.9	ug/l	
100-42-5	Styrene	ND	25	2.3	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	2.9	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	3.0	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	2.1	ug/l	
108-88-3	Toluene	184	5.0	2.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	25	6.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	25	6.4	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	4.2	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	2.5	ug/l	
79-01-6	Trichloroethene	ND	5.0	3.9	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	1.4	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	25	4.2	ug/l	
95-63-6	1,2,4-Trimethylbenzene	420	25	1.7	ug/l	
108-67-8	1,3,5-Trimethylbenzene	40.7	25	2.3	ug/l	
108-05-4	Vinyl Acetate	ND	25	6.3	ug/l	
75-01-4	Vinyl chloride	ND	5.0	3.1	ng/l	
	m,p-Xylene	1110	5.0	3.7	ug/l	
95-47-6	o-Xylene	25.2	5.0	2.9	ug/l	
1330-20-7	Xylene (total)	1130	5.0	2.9	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:	T12-ROX-011813		
Lab Sample ID:	MC17672-4	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%	95%	70-130%
2037-26-5	Toluene-D8	95%	91%	70-130%
460-00-4	4-Bromofluorobenzene	92%	92%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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 compouud

Report of Analysis

Client Sample ID:	T12-ROX-011813		
Lab Sample ID:	MC17672-4	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
Run #1	W8831.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.74	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.58	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	6.5	11	1.6	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.6	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	26.5	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	uJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.69	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.85	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.81	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.94	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	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:	TI2-ROX-011813		
Lab Sample ID:	MC17672-4	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.21	ug/l	U
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	U
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.91	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		15-110%
4165-62-2	Phenol-d5	26%		15-110%
118-79-6	2,4,6-Tribromophenol	86%		15-110%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	71%		30-130%

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

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

Report of Analysis

Client Sample ID:	T12-ROX-011813		
Lab Sample ID:	MC17672-4	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11916.D	1	01/23/13	NS	01/21/13	OP31754	MSU617
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.50	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.093	0.11	0.014	ug/l	J
120-12-7	Anthracene	~~0.13~~ U	~~0.11~~ 0.13	0.019	ug/l	B U
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ug/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.034	ug/l	
86-73-7	Fluorene	0.46	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.048	ug/l	
90-12-0	1-Methylnaphthalene	24.1	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	32.2	0.21	0.055	ug/l	
85-01-8	Phenanthrene	1.1	0.053	0.013	ug/l	
129-00-0	Pyrene	0.067	0.11	0.037	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	22%		15-110%
4165-62-2	Phenol-d5	26%		15-110%
118-79-6	2,4,6-Tribromophenol	71%		15-110%
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

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:	T12-ROX-011813		
Lab Sample ID:	MC17672-4	Date Sampled:	01/18/13
Matrix:	AQ - Ground Water	Date Received:	01/19/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21130.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	36.3 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	95%		36-173%
460-00-4	Bromoflnorobenzene (S)	107%		36-173%

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

Report of Analysis

Client Sample ID:	TB-011813-HCL		
Lab Sample ID:	MC17672-5	Date Sampled:	01/18/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53632.D	1	01/23/13	AMY	n/a	n/a	MSM1822
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-011813-HCL		
Lab Sample ID:	MC17672-5	Date Sampled:	01/18/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-011813-HCL		
Lab Sample ID:	MC17672-5	Date Sampled:	01/18/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/19/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dihromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-011813-ST		
Lab Sample ID:	MC17672-6	Date Sampled:	01/18/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/19/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21132.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	36.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	79%		36-173%
460-00-4	Bromofluorobenzene (S)	100%		36-173%

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

New England ACCUTEST LABORATORIES

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs; 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SEACH ☐ CONSULTANT ☐ UBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
INCIDENT # (ENV SERVICES): 9 7 2 1 0 6 4 0
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 1/18/13
PO #
SAP #: 3 4 0 0 6 1
PAGE 1 of 1

SAMPLING COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 350, ST LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462
SAMPLER NAME(S) (Print): L. Rathnow, T. Carroll
LAB USE ONLY: MC17672
BILL TO ADDRESS: 900 South Central Ave, ROXANA IL
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21562860.03001

TURNAROUND TIME (CALENDAR DAYS)
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ CA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	MW14-ROX-011813	1/18/13	09:00	Water	2			2	2	6	X	X	X	X	0	
-2	Pide-ROX-011813		11:10								X	X	X	X		
-3	Pide-ROX-011813-EB		11:35								X	X	X	X		
-4	TB-ROX-011813		14:05								X	X	X	X		
-5	TB-011813 HCL		00:00		↓					2	X					
-6	TB 011813 ST	↓	00:00	↓					2	2		X			↓	
																2H3, 16C

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	FED EX	1/18/13	
[signature]	[signature]	1/19/13	10:15

05/08 Revision

Rev. 0.8 C

MC17672: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17672 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/19/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SO CENTRAL No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V 508 481 6200
495 Technology Center West, Bldg One
F 508 481 7753
Marlborough, MA
www.accutest.com

5.1

5

MC17672: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17672

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17672-1 Collected: 18-JAN-13 09:00 By: BRTC Received: 19-JAN-13 By: MW14-ROX-011813						
MC17672-1	SW846 8270C	22-JAN-13 18:28	NS	21-JAN-13	AJ	AB8270SL+
MC17672-1	SW846 8270C BY SIM	23-JAN-13 15:38	NS	21-JAN-13	AJ	B8270SIMSL
MC17672-1	SW846 8260B	25-JAN-13 13:30	AMY			V8260SL+
MC17672-1	SW846 8011	29-JAN-13 19:10	NK	24-JAN-13	BJ	V8011SL
MC17672-2 Collected: 18-JAN-13 11:10 By: BRTC Received: 19-JAN-13 By: P66-ROX-011813						
MC17672-2	SW846 8270C	22-JAN-13 18:52	NS	21-JAN-13	AJ	AB8270SL+
MC17672-2	SW846 8270C BY SIM	23-JAN-13 16:00	NS	21-JAN-13	AJ	B8270SIMSL
MC17672-2	SW846 8260B	25-JAN-13 14:53	AMY			V8260SL+
MC17672-2	SW846 8011	29-JAN-13 19:34	NK	24-JAN-13	BJ	V8011SL
MC17672-3 Collected: 18-JAN-13 11:25 By: BRTC Received: 19-JAN-13 By: P66-ROX-011813-EB						
MC17672-3	SW846 8270C	22-JAN-13 19:15	NS	21-JAN-13	AJ	AB8270SL+
MC17672-3	SW846 8260B	23-JAN-13 15:20	AMY			V8260SL+
MC17672-3	SW846 8270C BY SIM	23-JAN-13 16:22	NS	21-JAN-13	AJ	B8270SIMSL
MC17672-3	SW846 8011	29-JAN-13 19:59	NK	24-JAN-13	BJ	V8011SL
MC17672-4 Collected: 18-JAN-13 14:05 By: BRTC Received: 19-JAN-13 By: T12-ROX-011813						
MC17672-4	SW846 8270C	22-JAN-13 19:39	NS	21-JAN-13	AJ	AB8270SL+
MC17672-4	SW846 8270C BY SIM	23-JAN-13 16:45	NS	21-JAN-13	AJ	B8270SIMSL
MC17672-4	SW846 8260B	23-JAN-13 20:24	AMY			V8260SL+
MC17672-4	SW846 8260B	24-JAN-13 14:23	AMY			V8260SL+
MC17672-4	SW846 8011	29-JAN-13 20:24	NK	24-JAN-13	BJ	V8011SL
MC17672-5 Collected: 18-JAN-13 00:00 By: BRTC Received: 19-JAN-13 By: TB-011813-HCL						
MC17672-5	SW846 8260B	23-JAN-13 13:57	AMY			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17672

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17672-6 Collected: 18-JAN-13 00:00 By: BRTC Received: 19-JAN-13 By: TB-011813-ST						
MC17672-6	SW846 8011	29-JAN-13 21:13	NK	24-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/19/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17672-1.2	Walk In Ref #22	Bijan Jafari	01/21/13 14:38	Retrieve from Storage
MC17672-1.2	Bijan Jafari		01/21/13 20:20	Depleted
MC17672-1.3	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17672-1.3	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17672-1.3	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17672-1.3	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17672-1.4	VOC Ref #2	Amy Min Yang	01/23/13 12:59	Retrieve from Storage
MC17672-1.4	Amy Min Yang	GCMSM	01/23/13 12:59	Load on Instrument
MC17672-1.4	GCMSM	Amy Min Yang	01/24/13 11:56	Unload from Instrument
MC17672-1.4	Amy Min Yang	VOC Ref #2	01/24/13 11:56	Return to Storage
MC17672-1.5	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17672-1.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17672-2.1	Walk In Ref #22	Bijan Jafari	01/21/13 14:38	Retrieve from Storage
MC17672-2.1	Bijan Jafari		01/21/13 20:20	Depleted
MC17672-2.3	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17672-2.3	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17672-2.3	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17672-2.3	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17672-2.4	VOC Ref #2	Amy Min Yang	01/23/13 12:59	Retrieve from Storage
MC17672-2.4	Amy Min Yang	GCMSM	01/23/13 12:59	Load on Instrument
MC17672-2.4	GCMSM	Amy Min Yang	01/24/13 11:56	Unload from Instrument
MC17672-2.4	Amy Min Yang	VOC Ref #2	01/24/13 11:56	Return to Storage
MC17672-2.5	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17672-2.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17672-3.1	Walk In Ref #22	Bijan Jafari	01/21/13 14:38	Retrieve from Storage
MC17672-3.1	Bijan Jafari		01/21/13 20:20	Depleted
MC17672-3.4	VOC Ref #2	Amy Min Yang	01/23/13 12:59	Retrieve from Storage
MC17672-3.4	Amy Min Yang	GCMSM	01/23/13 12:59	Load on Instrument
MC17672-3.4	GCMSM	Amy Min Yang	01/24/13 11:56	Unload from Instrument
MC17672-3.4	Amy Min Yang	VOC Ref #2	01/24/13 11:56	Retnrn to Storage
MC17672-3.5	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17672-3.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17672-4.2	Walk In Ref #22	Bijan Jafari	01/21/13 14:39	Retrieve from Storage

5.3
5

Accutest Internal Chain of Custody

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/19/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17672-4.2	Bijan Jafari		01/21/13 20:20	Depleted
MC17672-4.3	VOC Ref #2	Amy Min Yang	01/23/13 12:59	Retrieve from Storage
MC17672-4.3	Amy Min Yang	GCMSM	01/23/13 12:59	Load on Instrument
MC17672-4.3	GCMSM	Amy Min Yang	01/24/13 11:56	Unload from Instrument
MC17672-4.3	Amy Min Yang	VOC Ref #2	01/24/13 11:56	Return to Storage
MC17672-4.4	VOC Ref #2	Amy Min Yang	01/24/13 11:35	Retrieve from Storage
MC17672-4.4	Amy Min Yang	GCMSM	01/24/13 11:35	Load on Instrument
MC17672-4.4	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17672-4.4	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17672-4.5	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17672-4.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17672-5.1	VOC Ref #2	Amy Min Yang	01/23/13 12:59	Retrieve from Storage
MC17672-5.1	Amy Min Yang	GCMSM	01/23/13 12:59	Load on Instrument
MC17672-5.1	GCMSM	Amy Min Yang	01/24/13 11:56	Unload from Instrument
MC17672-5.1	Amy Min Yang	VOC Ref #2	01/24/13 11:56	Return to Storage
MC17672-6.1	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17672-6.1	Bijan Jafari		02/02/13 13:41	Depleted

5.3
5

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1822-MB	M53630.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroetbene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1822-MB	M53630.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1822-MB	M53630.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	90%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1823-MB	M53661.D	1	01/24/13	AMY	n/a	n/a	MSM1823

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.24	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	91%	70-130%

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.3

Blank Spike Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1822-BS	M53628.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	62.1	124	70-130
107-02-8	Acrolein	250	104	42* a	70-130
107-13-1	Acrylonitrile	50	55.8	112	70-130
71-43-2	Benzene	50	49.8	100	70-130
108-86-1	Bromobenzene	50	46.6	93	70-130
74-97-5	Bromochloromethane	50	59.4	119	70-130
75-27-4	Bromodichloromethane	50	49.6	99	70-130
75-25-2	Bromoform	50	46.9	94	70-130
74-83-9	Bromomethane	50	53.5	107	70-130
78-93-3	2-Butanone (MEK)	50	53.8	108	70-130
104-51-8	n-Butylbenzene	50	44.7	89	70-130
135-98-8	sec-Butylbenzene	50	51.0	102	70-130
98-06-6	tert-Butylbenzene	50	49.0	98	70-130
75-15-0	Carbon disulfide	50	50.3	101	70-130
56-23-5	Carbou tetrachloride	50	48.4	97	70-130
108-90-7	Chlorobenzene	50	54.3	109	70-130
75-00-3	Chloroethane	50	50.5	101	70-130
110-75-8	2-Chloroethyl vinyl ether	50	15.6	31* a	70-130
67-66-3	Chloroform	50	53.3	107	70-130
74-87-3	Chloromethane	50	56.7	113	70-130
95-49-8	o-Chlorotoluene	50	48.4	97	70-130
106-43-4	p-Chlorotoluene	50	49.3	99	70-130
124-48-1	Dibromochloromethane	50	48.4	97	70-130
95-50-1	1,2-Dichlorobenzene	50	48.6	97	70-130
541-73-1	1,3-Dichlorobenzene	50	48.3	97	70-130
106-46-7	1,4-Dichlorobenzene	50	44.7	89	70-130
75-71-8	Dichlorodifluoromethane	50	46.2	92	70-130
75-34-3	1,1-Dichloroethane	50	53.5	107	70-130
107-06-2	1,2-Dichloroethane	50	51.6	103	70-130
75-35-4	1,1-Dichloroethene	50	55.7	111	70-130
156-59-2	cis-1,2-Dichloroethene	50	54.4	109	70-130
156-60-5	trans-1,2-Dichloroethene	50	54.3	109	70-130
78-87-5	1,2-Dichloropropane	50	50.9	102	70-130
142-28-9	1,3-Dichloropropane	50	47.4	95	70-130
594-20-7	2,2-Dichloropropane	50	53.9	108	70-130
563-58-6	1,1-Dichloropropene	50	52.8	106	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1822-BS	M53628.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	52.3	105	70-130
10061-02-6	trans-1,3-Dichloropropene	50	59.2	118	70-130
123-91-1	1,4-Dioxane	250	307	123	70-130
97-63-2	Ethyl methacrylate	50	58.2	116	77-137
100-41-4	Ethylbenzene	50	50.4	101	70-130
87-68-3	Hexachlorobutadiene	50	39.4	79	70-130
591-78-6	2-Hexanone	50	55.1	110	70-130
98-82-8	Isopropylbenzene	50	53.9	108	70-130
99-87-6	p-Isopropyltoluene	50	49.5	99	70-130
1634-04-4	Methyl Tert Butyl Ether	50	56.6	113	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	55.5	111	70-130
74-95-3	Methylene bromide	50	52.8	106	70-130
75-09-2	Methylene chloride	50	53.5	107	70-130
91-20-3	Naphthalene	50	48.0	96	70-130
103-65-1	n-Propylbenzene	50	50.3	101	70-130
100-42-5	Styrene	50	53.0	106	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	49.8	100	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	40.6	81	70-130
127-18-4	Tetrachloroethene	50	50.2	100	70-130
108-88-3	Toluene	50	56.8	114	70-130
87-61-6	1,2,3-Trichlorobenzene	50	44.0	88	70-130
120-82-1	1,2,4-Trichlorobenzene	50	44.8	90	70-130
71-55-6	1,1,1-Trichloroethane	50	52.8	106	70-130
79-00-5	1,1,2-Trichloroethane	50	48.7	97	70-130
79-01-6	Trichloroethene	50	49.4	99	70-130
75-69-4	Trichlorofluoromethane	50	51.4	103	70-130
96-18-4	1,2,3-Trichloropropane	50	41.6	83	70-130
95-63-6	1,2,4-Trimethylbenzene	50	47.8	96	70-130
108-67-8	1,3,5-Trimethylbenzene	50	47.3	95	70-130
108-05-4	Vinyl Acetate	50	58.2	116	70-130
75-01-4	Vinyl chloride	50	44.0	88	70-130
	m,p-Xylene	100	112	112	70-130
95-47-6	o-Xylene	50	57.9	116	70-130
1330-20-7	Xylene (total)	150	170	113	70-130

* = Ontside of Control Limits.

Blank Spike Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1822-BS	M53628.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	88%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1823-BS	M53658.D	1	01/24/13	AMY	n/a	n/a	MSM1823
MSM1823-BSD	M53659.D	1	01/24/13	AMY	n/a	n/a	MSM1823

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	50.1	100	49.2	98	2	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	95%	92%	70-130%
2037-26-5	Toluene-D8	101%	88%	70-130%
460-00-4	4-Bromofluorobenzene	97%	94%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	66.3	133* a	64.3	129	3	70-130/25
107-02-8	Acrolein	250	190	76	162	65* a	16	70-130/25
107-13-1	Acrylonitrile	50	62.3	125	73.4	147* b	16	70-130/25
71-43-2	Benzene	50	51.2	102	51.3	103	0	70-130/25
108-86-1	Bromobenzene	50	45.7	91	45.3	91	1	70-130/25
74-97-5	Bromochloromethane	50	59.7	119	60.4	121	1	70-130/25
75-27-4	Bromodichloromethane	50	51.7	103	51.8	104	0	70-130/25
75-25-2	Bromoform	50	43.3	87	49.8	100	14	70-130/25
74-83-9	Bromomethane	50	57.0	114	51.7	103	10	70-130/25
78-93-3	2-Butanone (MEK)	50	57.8	116	68.9	138* a	18	70-130/25
104-51-8	n-Butylbenzene	50	42.5	85	45.7	91	7	70-130/25
135-98-8	sec-Butylbenzene	50	52.3	105	51.0	102	3	70-130/25
98-06-6	tert-Butylbenzene	50	51.7	103	49.5	99	4	70-130/25
75-15-0	Carbon disulfide	50	56.0	112	54.3	109	3	70-130/25
56-23-5	Carbon tetrachloride	50	51.6	103	52.1	104	1	70-130/25
108-90-7	Chlorobenzene	50	50.1	100	53.9	108	7	70-130/25
75-00-3	Chloroethane	50	58.9	118	49.3	99	18	70-130/25
110-75-8	2-Cbloroethyl vinyl ether	50	39.7	79	40.4	81	2	70-130/25
67-66-3	Chloroform	50	59.7	119	60.6	121	1	70-130/25
74-87-3	Chloromethane	50	57.1	114	51.3	103	11	70-130/25
95-49-8	o-Chlorotoluene	50	52.4	105	47.0	94	11	70-130/25
106-43-4	p-Chlorotoluene	50	51.9	104	47.0	94	10	70-130/25
124-48-1	Dibromochloromethane	50	44.7	89	50.1	100	11	70-130/25
95-50-1	1,2-Dichlorobenzene	50	46.4	93	50.3	101	8	70-130/25
541-73-1	1,3-Dichlorobenzene	50	47.9	96	47.8	96	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	42.1	84	43.0	86	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	43.3	87	44.7	89	3	70-130/25
75-34-3	1,1-Dichloroethane	50	58.1	116	58.7	117	1	70-130/25
107-06-2	1,2-Dichloroethane	50	58.5	117	57.7	115	1	70-130/25
75-35-4	1,1-Dichloroethene	50	59.6	119	58.6	117	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	53.7	107	57.2	114	6	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	56.0	112	55.1	110	2	70-130/25
78-87-5	1,2-Dichloropropane	50	54.0	108	53.7	107	1	70-130/25
142-28-9	1,3-Dichloropropane	50	47.9	96	51.2	102	7	70-130/25
594-20-7	2,2-Dichloropropane	50	64.5	129	64.3	129	0	70-130/25
563-58-6	1,1-Dichloropropene	50	57.8	116	57.9	116	0	70-130/25

* = Outside of Control Limits.

6.3.2

6

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	56.0	112	55.8	112	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	61.8	124	60.7	121	2	70-130/25
123-91-1	1,4-Dioxane	250	338	135* [a]	332	133* [a]	2	70-130/25
97-63-2	Ethyl methacrylate	50	64.6	129	61.7	123	5	77-137/25
100-41-4	Ethylbenzene	50	47.0	94	48.8	98	4	70-130/25
87-68-3	Hexachlorobutadiene	50	39.2	78	42.6	85	8	70-130/25
591-78-6	2-Hexanone	50	64.3	129	66.1	132* [a]	3	70-130/25
98-82-8	Isopropylbenzene	50	57.1	114	54.7	109	4	70-130/25
99-87-6	p-Isopropyltoluene	50	47.2	94	47.8	96	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	60.1	120	59.9	120	0	70-130/25
108-10-1	4-Methyl-2-pentanone (M1BK)	50	71.1	142* [b]	72.1	144* [b]	1	70-130/25
74-95-3	Methylene bromide	50	54.5	109	54.2	108	1	70-130/25
75-09-2	Methylene chloride	50	55.2	110	56.7	113	3	70-130/25
91-20-3	Naphthalene	50	51.2	102	57.1	114	11	70-130/25
103-65-1	n-Propylbenzene	50	55.0	110	49.8	100	10	70-130/25
100-42-5	Styrene	50	48.0	96	51.4	103	7	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	44.8	90	47.8	96	6	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	46.0	92	42.8	86	7	70-130/25
127-18-4	Tetrachloroethene	50	44.1	88	50.9	102	14	70-130/25
108-88-3	Toluene	50	55.9	112	54.8	110	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	46.3	93	47.7	95	3	70-130/25
120-82-1	1,2,4-Tricblorobenzene	50	44.6	89	48.0	96	7	70-130/25
71-55-6	1,1,1-Trichloroethane	50	58.8	118	60.5	121	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.4	103	51.5	103	0	70-130/25
79-01-6	Trichloroethene	50	50.4	101	50.5	101	0	70-130/25
75-69-4	Trichlorofluoromethane	50	60.5	121	54.3	109	11	70-130/25
96-18-4	1,2,3-Trichloropropane	50	51.0	102	46.9	94	8	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	47.5	95	46.1	92	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	49.7	99	46.2	92	7	70-130/25
108-05-4	Vinyl Acetate	50	73.4	147* [a]	69.3	139* [a]	6	70-130/25
75-01-4	Vinyl chloride	50	58.5	117	52.5	105	11	70-130/25
	m,p-Xylene	100	103	103	109	109	6	70-130/25
95-47-6	o-Xylene	50	52.9	106	57.1	114	8	70-130/25
1330-20-7	Xylene (total)	150	155	103	166	111	7	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	97%	70-130%
2037-26-5	Toluene-D8	97%	96%	70-130%
460-00-4	4-Bromofluorobenzene	102%	93%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for tbis compound.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17646-2MS	M53640.D	5	01/23/13	AMY	n/a	n/a	MSM1822
MC17646-2MSD	M53641.D	5	01/23/13	AMY	n/a	n/a	MSM1822
MC17646-2	M53636.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Compound	MC17646-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	205	82	202	81	1	70-130/30
107-02-8	Acrolein	ND		1250	1460	117	1360	109	7	70-130/30
107-13-1	Acrylonitrile	ND		250	263	105	266	106	1	70-130/30
71-43-2	Benzene	26.5		250	263	95	270	97	3	70-130/30
108-86-1	Bromobenzene	ND		250	223	89	228	91	2	70-130/30
74-97-5	Bromochloromethane	ND		250	282	113	284	114	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	241	96	246	98	2	70-130/30
75-25-2	Bromoform	ND		250	231	92	227	91	2	70-130/30
74-83-9	Bromomethane	ND		250	257	103	266	106	3	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	227	91	227	91	0	70-130/30
104-51-8	n-Butylbenzene	ND		250	202	81	208	83	3	70-130/30
135-98-8	sec-Butylbenzene	ND		250	232	93	236	94	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	224	90	231	92	3	70-130/30
75-15-0	Carbon disulfide	ND		250	246	98	246	98	0	70-130/30
56-23-5	Carbon tetrachloride	ND		250	228	91	235	94	3	70-130/30
108-90-7	Chlorobenzene	ND		250	266	106	267	107	0	70-130/30
75-00-3	Chloroethane	ND		250	241	96	248	99	3	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		250	261	104	259	104	1	70-130/30
74-87-3	Chloromethane	ND		250	270	108	276	110	2	70-130/30
95-49-8	o-Chlorotoluene	ND		250	228	91	232	93	2	70-130/30
106-43-4	p-Chlorotoluene	ND		250	233	93	237	95	2	70-130/30
124-48-1	Dibromochloromethane	ND		250	235	94	235	94	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	232	93	235	94	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	230	92	234	94	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	214	86	215	86	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	213	85	223	89	5	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	262	105	260	104	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	246	98	251	100	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	276	110	275	110	0	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	263	105	266	106	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	265	106	264	106	0	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	240	96	250	100	4	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	233	93	230	92	1	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	262	105	265	106	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	255	102	259	104	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17646-2MS	M53640.D	5	01/23/13	AMY	n/a	n/a	MSM1822
MC17646-2MSD	M53641.D	5	01/23/13	AMY	n/a	n/a	MSM1822
MC17646-2	M53636.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Compound	MC17646-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	247	99	252	101	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	281	112	280	112	0	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1490	119	1420	114	5	70-130/30
97-63-2	Ethyl methacrylate	ND		250	273	109	278	111	2	72-139/30
100-41-4	Ethylbenzene	ND		250	243	97	246	98	1	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	177	71	182	73	3	70-130/30
591-78-6	2-Hexanone	ND		250	245	98	240	96	2	70-130/30
98-82-8	Isopropylbenzene	ND		250	249	100	257	103	3	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	225	90	232	93	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	3.8		250	278	110	281	111	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	263	105	269	108	2	70-130/30
74-95-3	Methylene bromide	ND		250	247	99	258	103	4	70-130/30
75-09-2	Methylene chloride	ND		250	261	104	258	103	1	70-130/30
91-20-3	Naphthalene	ND		250	228	91	232	93	2	70-130/30
103-65-1	n-Propylbenzene	ND		250	234	94	240	96	3	70-130/30
100-42-5	Styrene	ND		250	255	102	256	102	0	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	246	98	245	98	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	196	78	194	78	1	70-130/30
127-18-4	Tetrachloroethene	ND		250	244	98	249	100	2	70-130/30
108-88-3	Toluene	ND		250	271	108	280	112	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	206	82	209	84	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	212	85	216	86	2	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	254	102	260	104	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	234	94	239	96	2	70-130/30
79-01-6	Trichloroethene	ND		250	237	95	242	97	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	246	98	249	100	1	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	189	76	193	77	2	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	223	89	226	90	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	219	88	224	90	2	70-130/30
108-05-4	Vinyl Acetate	ND		250	284	114	279	112	2	70-130/30
75-01-4	Vinyl chloride	ND		250	209	84	217	87	4	70-130/30
	m,p-Xylene	ND		500	538	108	545	109	1	70-130/30
95-47-6	o-Xylene	ND		250	277	111	286	114	3	70-130/30
1330-20-7	Xylene (total)	ND		750	815	109	831	111	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17646-2MS	M53640.D	5	01/23/13	AMY	n/a	n/a	MSM1822
MC17646-2MSD	M53641.D	5	01/23/13	AMY	n/a	n/a	MSM1822
MC17646-2	M53636.D	1	01/23/13	AMY	n/a	n/a	MSM1822

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-3, MC17672-4, MC17672-5

CAS No.	Surrogate Recoveries	MS	MSD	MC17646-2	Limits
1868-53-7	Dibromofluoromethane	90%	87%	89%	70-130%
2037-26-5	Toluene-D8	94%	95%	94%	70-130%
460-00-4	4-Bromofluorobenzene	93%	92%	92%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17719-4MS	M53667.D	5	01/24/13	AMY	n/a	n/a	MSM1823
MC17719-4MSD	M53668.D	5	01/24/13	AMY	n/a	n/a	MSM1823
MC17719-4	M53665.D	1	01/24/13	AMY	n/a	n/a	MSM1823

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-4

CAS No.	Compound	MC17719-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	239	96	229	92	4	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC17719-4	Limits
1868-53-7	Dibromofluoromethane	92%	88%	99%	70-130%
2037-26-5	Toluene-D8	107%	108%	85%	70-130%
460-00-4	4-Bromofluorobenzene	99%	85%	100%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	224	90	216	86	4	70-130/30
107-02-8	Acrolein	ND		1250	1600	128	1660	133* a	4	70-130/30
107-13-1	Acrylonitrile	ND		250	338	135* a	314	126	7	70-130/30
71-43-2	Benzene	ND		250	239	96	218	87	9	70-130/30
108-86-1	Bromobenzene	ND		250	216	86	207	83	4	70-130/30
74-97-5	Bromochloromethane	ND		250	277	111	284	114	2	70-130/30
75-27-4	Bromodichloromethane	ND		250	244	98	259	104	6	70-130/30
75-25-2	Bromoform	ND		250	229	92	191	76	18	70-130/30
74-83-9	Bromomethane	ND		250	246	98	236	94	4	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	277	111	344	138* a	22	70-130/30
104-51-8	n-Butylbenzene	ND		250	222	89	224	90	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	243	97	249	100	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	253	101	257	103	2	70-130/30
75-15-0	Carbon disulfide	ND		250	288	115	279	112	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	247	99	219	88	12	70-130/30
108-90-7	Chlorobenzene	ND		250	253	101	219	88	14	70-130/30
75-00-3	Chloroethane	ND		250	231	92	230	92	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* a	ND	0* a	nc	70-130/30
67-66-3	Chloroform	ND		250	256	102	261	104	2	70-130/30
74-87-3	Chloromethane	ND		250	237	95	239	96	1	70-130/30
95-49-8	o-Chlorotoluene	ND		250	251	100	243	97	3	70-130/30
106-43-4	p-Chlorotoluene	ND		250	254	102	249	100	2	70-130/30
124-48-1	Dibromochloromethane	ND		250	231	92	198	79	15	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	230	92	223	89	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	228	91	219	88	4	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	207	83	205	82	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	214	86	201	80	6	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	261	104	314	126	18	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	270	108	236	94	13	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	290	116	278	111	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	250	100	278	111	11	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	280	112	278	111	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	246	98	250	100	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	228	91	207	83	10	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	263	105	256	102	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	288	115	235	94	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	271	108	271	108	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	263	105	304	122	14	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1230	98	1270	102	3	70-130/30
97-63-2	Ethyl methacrylate	ND		250	286	114	320	128	11	72-139/30
100-41-4	Ethylbenzene	ND		250	225	90	216	86	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	180	72	173	69* [a]	4	70-130/30
591-78-6	2-Hexanone	ND		250	274	110	255	102	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	274	110	264	106	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	236	94	237	95	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	16.6		250	316	120	348	133* [a]	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	338	135* [a]	324	130	4	70-130/30
74-95-3	Methylene bromide	ND		250	246	98	261	104	6	70-130/30
75-09-2	Methylene chloride	ND		250	287	115	278	111	3	70-130/30
91-20-3	Naphthalene	ND		250	244	98	231	92	5	70-130/30
103-65-1	n-Propylbenzene	ND		250	264	106	254	102	4	70-130/30
100-42-5	Styrene	ND		250	258	103	211	84	20	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	225	90	203	81	10	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	222	89	231	92	4	70-130/30
127-18-4	Tetrachloroethene	ND		250	235	94	188	75	22	70-130/30
108-88-3	Toluene	ND		250	261	104	277	111	6	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	212	85	198	79	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	211	84	196	78	7	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	267	107	234	94	13	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	224	90	255	102	13	70-130/30
79-01-6	Trichloroethene	ND		250	229	92	226	90	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	295	118	284	114	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	221	88	250	100	12	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	224	90	225	90	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	232	93	228	91	2	70-130/30
108-05-4	Vinyl Acetate	ND		250	305	122	398	159* [a]	26	70-130/30
75-01-4	Vinyl chloride	ND		250	237	95	228	91	4	70-130/30
	m,p-Xylene	ND		500	554	111	455	91	20	70-130/30
95-47-6	o-Xylene	ND		250	289	116	238	95	19	70-130/30
1330-20-7	Xylene (total)	ND		750	844	113	693	92	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17672-1, MC17672-2

CAS No.	Surrogate Recoveries	MS	MSD	MC17633-1	Limits
1868-53-7	Dibromofluoromethane	89%	92%	97%	70-130%
2037-26-5	Toluene-D8	88%	101%	97%	70-130%
460-00-4	4-Bromofluorobenzene	104%	105%	95%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1822-CC1739	Injection Date:	01/23/13
Lab File ID:	M53626.D	Injection Time:	11:11
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	116045	9.36	178771	10.24	97932	13.52	131105	16.08	37786	6.86
Upper Limit [a]	232090	9.86	357542	10.74	195864	14.02	262210	16.58	75572	7.36
Lower Limit [b]	58023	8.86	89386	9.74	48966	13.02	65553	15.58	18893	6.36
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1822-BS	118464	9.36	181450	10.24	100015	13.52	131721	16.08	38793	6.86
MSM1822-MB	113046	9.36	170126	10.24	90656	13.52	128429	16.08	38281	6.86
ZZZZZZ	115286	9.36	172279	10.24	91755	13.52	129263	16.08	38378	6.86
MC17672-5	114144	9.36	173004	10.24	91824	13.52	129575	16.08	38826	6.86
ZZZZZZ	116521	9.36	174863	10.24	91674	13.52	129433	16.08	38800	6.86
ZZZZZZ	114774	9.36	173487	10.24	90740	13.52	128845	16.08	40821	6.86
MC17672-3	113976	9.36	173170	10.24	91103	13.52	127489	16.08	40361	6.86
MC17646-2	113944	9.36	171714	10.24	90740	13.52	127287	16.08	40485	6.86
ZZZZZZ	118011	9.36	177615	10.24	95034	13.52	129145	16.08	58346	6.85
ZZZZZZ	117998	9.36	176090	10.24	91891	13.52	129007	16.08	43737	6.86
ZZZZZZ	115215	9.36	174061	10.24	92624	13.52	128494	16.08	39645	6.86
MC17646-2MS	117056	9.36	180379	10.24	96969	13.52	129756	16.08	39711	6.86
MC17646-2MSD	117994	9.36	178880	10.24	98421	13.52	130597	16.08	38983	6.86
ZZZZZZ	114931	9.36	175006	10.24	92489	13.52	127532	16.08	47609	6.85
ZZZZZZ	113815	9.36	172786	10.24	92373	13.52	129810	16.08	38025	6.85
MC17672-4	115767	9.36	174014	10.24	93115	13.52	126682	16.08	41911	6.86
ZZZZZZ	118694	9.36	182730	10.24	94589	13.52	133393	16.08	39748	6.86
ZZZZZZ	114700	9.36	174373	10.24	92190	13.52	130271	16.08	35267	6.86
ZZZZZZ	113125	9.36	173441	10.24	92011	13.52	126446	16.08	33475	6.86
ZZZZZZ	116561	9.36	177434	10.24	93340	13.51	130778	16.08	33264	6.87

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1823-CC1739	Injection Date:	01/24/13
Lab File ID:	M53657.D	Injection Time:	11:37
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	117742	9.36	177523	10.24	118946	13.52	126569	16.08	50216	6.86
Upper Limit [a]	235484	9.86	355046	10.74	237892	14.02	253138	16.58	100432	7.36
Lower Limit [b]	58871	8.86	88762	9.74	59473	13.02	63285	15.58	25108	6.36
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1823-BS	116215	9.36	184378	10.24	105763	13.51	129787	16.08	51926	6.86
MSM1823-BSD	118995	9.36	192153	10.24	97809	13.52	130900	16.08	54505	6.86
MSM1823-MB	111274	9.36	182313	10.24	106241	13.51	122193	16.08	51107	6.86
ZZZZZZ	115704	9.36	182071	10.24	105940	13.52	126616	16.08	43938	6.85
MC17672-4	117020	9.36	179573	10.24	111114	13.52	127748	16.08	50475	6.86
ZZZZZZ	117421	9.36	170059	10.24	106411	13.52	128486	16.08	53584	6.86
MC17719-4	118679	9.36	188714	10.24	90023	13.52	132360	16.08	50547	6.86
ZZZZZZ	115048	9.36	174865	10.24	102996	13.52	121793	16.08	42282	6.86
MC17719-4MS	113148	9.36	171462	10.24	96136	13.52	136710	16.08	41641	6.86
MC17719-4MSD	114876	9.36	175228	10.24	95600	13.52	137708	16.08	51750	6.86
ZZZZZZ	112144	9.36	166256	10.24	97458	13.52	121746	16.08	44744	6.86
GP15523-LB1	111340	9.36	167934	10.24	105127	13.52	131945	16.08	49938	6.86
ZZZZZZ	114448	9.36	184819	10.24	85807	13.52	121157	16.08	51431	6.86
ZZZZZZ	112355	9.36	182884	10.24	101035	13.52	128504	16.08	57666	6.86
ZZZZZZ	113613	9.36	176243	10.24	102199	13.52	124847	16.08	47837	6.85
ZZZZZZ	112700	9.36	179931	10.24	100732	13.52	125759	16.08	55117	6.85
ZZZZZZ	115239	9.36	181852	10.24	90042	13.52	120660	16.08	54272	6.86
ZZZZZZ	115256	9.36	181620	10.24	99745	13.52	119754	16.08	53925	6.86
ZZZZZZ	116021	9.36	180734	10.24	89118	13.52	120986	16.08	53367	6.86
ZZZZZZ	115081	9.36	162438	10.24	85978	13.52	129583	16.08	52493	6.85
ZZZZZZ	111115	9.36	182115	10.24	102970	13.52	121744	16.08	52829	6.86
ZZZZZZ	108978	9.36	176631	10.24	92393	13.52	118273	16.08	45337	6.86
GP15523-LS1	116793	9.36	189447	10.24	109201	13.52	131490	16.08	56322	6.86

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1824-CC1739	Injection Date:	01/25/13
Lab File ID:	M53685.D	Injection Time:	08:24
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	118871	9.36	178351	10.24	112741	13.52	130740	16.08	53575	6.86
Upper Limit [a]	237742	9.86	356702	10.74	225482	14.02	261480	16.58	107150	7.36
Lower Limit [b]	59436	8.86	89176	9.74	56371	13.02	65370	15.58	26788	6.36
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1824-BS	118062	9.36	190648	10.24	111020	13.52	128658	16.08	51434	6.86
MSM1824-BSD	119560	9.36	193762	10.24	96893	13.52	125158	16.08	52118	6.86
MSM1824-MB	115975	9.36	186664	10.24	103939	13.52	131964	16.08	58412	6.86
ZZZZZZ	116646	9.36	172128	10.24	101349	13.52	123828	16.08	51786	6.86
ZZZZZZ	112742	9.36	174545	10.24	95190	13.52	125698	16.08	47384	6.85
ZZZZZZ	114600	9.36	169983	10.24	93037	13.52	126988	16.08	53646	6.86
ZZZZZZ	114835	9.36	185155	10.24	94153	13.52	127887	16.08	45275	6.86
MC17633-1	117426	9.36	186014	10.24	103252	13.52	126712	16.08	53764	6.86
ZZZZZZ	114806	9.36	174081	10.24	93255	13.52	120597	16.08	46164	6.85
MC17672-1	109667	9.36	183993	10.24	107074	13.52	118881	16.08	51825	6.85
ZZZZZZ	113470	9.36	186502	10.24	104750	13.52	120533	16.08	48736	6.86
ZZZZZZ	112877	9.35	183673	10.24	107392	13.52	128533	16.08	53051	6.86
MC17672-2	115881	9.36	177418	10.24	88232	13.52	130887	16.08	55870	6.86
MC17633-1MS	116950	9.36	192627	10.24	100432	13.52	134327	16.08	47407	6.85
MC17633-1MSD	117246	9.36	183464	10.24	119111	13.52	133610	16.08	47429	6.86
ZZZZZZ	122438	9.36	186640	10.24	110665	13.52	130826	16.08	59991	6.85
ZZZZZZ	120356	9.36	186580	10.24	89622	13.52	124272	16.08	54855	6.86
ZZZZZZ	117525	9.36	188551	10.24	95883	13.52	132247	16.08	53865	6.85

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17672-1	M53696.D	103.0	97.0	110.0
MC17672-2	M53699.D	96.0	94.0	84.0
MC17672-3	M53635.D	89.0	93.0	90.0
MC17672-4	M53663.D	95.0	91.0	92.0
MC17672-4	M53646.D	88.0	95.0	92.0
MC17672-5	M53632.D	91.0	95.0	91.0
MC17633-1MS	M53700.D	89.0	88.0	104.0
MC17633-1MSD	M53701.D	92.0	101.0	105.0
MC17646-2MS	M53640.D	90.0	94.0	93.0
MC17646-2MSD	M53641.D	87.0	95.0	92.0
MC17719-4MS	M53667.D	92.0	107.0	99.0
MC17719-4MSD	M53668.D	88.0	108.0	85.0
MSM1822-BS	M53628.D	88.0	95.0	92.0
MSM1822-MB	M53630.D	91.0	95.0	90.0
MSM1823-BS	M53658.D	95.0	101.0	97.0
MSM1823-BSD	M53659.D	92.0	88.0	94.0
MSM1823-MB	M53661.D	98.0	96.0	91.0
MSM1824-BS	M53686.D	98.0	97.0	102.0
MSM1824-BSD	M53687.D	97.0	96.0	93.0
MSM1824-MB	M53689.D	99.0	95.0	98.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31753-MB	W8821.D	1	01/22/13	NS	01/21/13	OP31753	MSW415

The QC reported here applies to the following samples: Method: SW846 8270C

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ng/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ng/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	ng/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	0.34	ng/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31753-MB	W8821.D	1	01/22/13	NS	01/21/13	OP31753	MSW415

The QC reported here applies to the following samples: Method: SW846 8270C

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ng/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	28%	15-110%
4165-62-2	Phenol-d5	21%	15-110%
118-79-6	2,4,6-Tribromophenol	70%	15-110%
4165-60-0	Nitrobenzene-d5	58%	30-130%
321-60-8	2-Fluorobiphenyl	49%	30-130%
1718-51-0	Terphenyl-d14	71%	30-130%

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

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31754-MB	U11908.D	1	01/23/13	NS	01/21/13	OP31754	MSU617

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	0.031	0.10	0.018	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	0.052	0.20	0.052	ug/l	J
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	28%	15-110%
4165-62-2	Phenol-d5	21%	15-110%
118-79-6	2,4,6-Tribromophenol	57%	15-110%
4165-60-0	Nitrobenzene-d5	59%	30-130%
321-60-8	2-Fluorobiphenyl	60%	30-130%
1718-51-0	Terphenyl-d14	78%	30-130%

Blank Spike Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31753-BS	W8822.D	1	01/22/13	NS	01/21/13	OP31753	MSW415

The QC reported here applies to the following samples: Method: SW846 8270C

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	39.7	40	30-130
95-57-8	2-Chlorophenol	100	63.1	63	30-130
59-50-7	4-Chloro-3-methyl phenol	100	71.7	72	30-130
120-83-2	2,4-Dichlorophenol	100	74.7	75	30-130
105-67-9	2,4-Dimethylphenol	100	50.9	51	30-130
51-28-5	2,4-Dinitrophenol	100	79.1	79	30-130
534-52-1	4,6-Dinitro-o-cresol	100	82.6	83	30-130
95-48-7	2-Methylphenol	100	57.3	57	30-130
	3&4-Methylphenol	200	108	54	30-130
88-75-5	2-Nitrophenol	100	75.9	76	30-130
100-02-7	4-Nitrophenol	100	35.4	35	30-130
87-86-5	Pentachlorophenol	100	89.3	89	30-130
108-95-2	Phenol	100	31.3	31	30-130
95-95-4	2,4,5-Trichlorophenol	100	82.6	83	30-130
88-06-2	2,4,6-Trichlorophenol	100	85.7	86	30-130
62-53-3	Aniline	50	18.1	36* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	40.4	81	40-140
85-68-7	Butyl benzyl phthalate	50	30.6	61	40-140
100-51-6	Benzyl Alcohol	50	32.7	65	40-140
91-58-7	2-Chloronaphthalene	50	34.6	69	40-140
106-47-8	4-Chloroauiline	50	26.8	54	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	32.8	66	40-140
111-44-4	bis(2-Chloroethyl)ether	50	35.3	71	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	40.4	81	40-140
7005-72-3	4-Chlorophenyl pheuyl ether	50	40.4	81	40-140
122-66-7	1,2-Diphenylhydrazine	50	36.9	74	40-140
121-14-2	2,4-Dinitrotoluene	50	42.3	85	40-140
606-20-2	2,6-Dinitrotoluene	50	40.6	81	40-140
91-94-1	3,3'-Dichlorobenzidine	50	29.2	58	40-140
132-64-9	Dibenzofuran	50	35.0	70	40-140
84-74-2	Di-n-butyl phthalate	50	35.1	70	40-140
117-84-0	Di-n-octyl phthalate	50	42.1	84	40-140
84-66-2	Diethyl phthalate	50	30.3	61	40-140
131-11-3	Dimethyl phthalate	50	15.3	31* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	38.8	78	40-140
118-74-1	Hexachlorobenzene	50	41.6	83	40-140

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31753-BS	W8822.D	1	01/22/13	NS	01/21/13	OP31753	MSW415

The QC reported here applies to the following samples: Method: SW846 8270C

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	16.5	33* a	40-140
67-72-1	Hexachloroethane	50	25.3	51	40-140
78-59-1	Isophorone	50	40.2	80	40-140
88-74-4	2-Nitroaniline	50	40.8	82	40-140
99-09-2	3-Nitroaniline	50	27.3	55	40-140
100-01-6	4-Nitroaniline	50	34.4	69	40-140
98-95-3	Nitrobenzene	50	37.1	74	40-140
62-75-9	n-Nitrosodimethylamine	50	22.9	46	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	40.0	80	40-140
86-30-6	N-Nitrosodiphenylamine	50	38.7	77	40-140
110-86-1	Pyridine	50	17.6	35* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	40%	15-110%
4165-62-2	Phenol-d5	29%	15-110%
118-79-6	2,4,6-Tribromophenol	91%	15-110%
4165-60-0	Nitrobenzene-d5	74%	30-130%
321-60-8	2-Fluorobiphenyl	67%	30-130%
1718-51-0	Terphenyl-d14	78%	30-130%

(a) Outside control limits. Blank Spike meets program techuical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31754-BS	U11909.D	1	01/23/13	NS	01/21/13	OP31754	MSU617

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.6	79	40-140
208-96-8	Acenaphthylene	50	29.3	59	40-140
120-12-7	Anthracene	50	40.6	81	40-140
56-55-3	Benzo(a)anthracene	50	43.7	87	40-140
50-32-8	Benzo(a)pyrene	50	39.0	78	40-140
205-99-2	Benzo(b)flnoranthene	50	41.2	82	40-140
191-24-2	Benzo(g,h,i)perylene	50	41.1	82	40-140
207-08-9	Benzo(k)fluoranthene	50	42.4	85	40-140
218-01-9	Chrysene	50	43.2	86	40-140
53-70-3	Dibenzo(a,h)anthracene	50	41.4	83	40-140
206-44-0	Fluoranthene	50	44.7	89	40-140
86-73-7	Fluorene	50	39.7	79	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	40.6	81	40-140
90-12-0	1-Methylnaphthalene	50	36.3	73	40-140
91-57-6	2-Methylnaphthalene	50	34.4	69	40-140
85-01-8	Phenanthrene	50	43.1	86	40-140
129-00-0	Pyrene	50	43.1	86	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	41%	15-110%
4165-62-2	Phenol-d5	30%	15-110%
118-79-6	2,4,6-Tribromophenol	75%	15-110%
4165-60-0	Nitrobenzene-d5	73%	30-130%
321-60-8	2-Fluorobiphenyl	76%	30-130%
1718-51-0	Terphenyl-d14	83%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31753-MS	W8823.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
OP31753-MSD	W8824.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
MC17700-7	W8825.D	1	01/22/13	NS	01/21/13	OP31753	MSW415

The QC reported here applies to the following samples: Method: SW846 8270C

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	MC17700-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	39.7	40	41.8	42	5	30-130/20
95-57-8	2-Chlorophenol	ND		100	61.2	61	64.5	65	5	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	70.1	70	73.4	73	5	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	72.4	72	75.0	75	4	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	49.6	50	50.8	51	2	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	79.7	80	83.1	83	4	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	80.5	81	84.2	84	4	30-130/20
95-48-7	2-Methylphenol	ND		100	56.3	56	59.4	59	5	30-130/20
	3&4-Methylphenol	ND		200	106	53	113	57	6	30-130/20
88-75-5	2-Nitrophenol	ND		100	74.1	74	76.2	76	3	30-130/20
100-02-7	4-Nitrophenol	ND		100	35.1	35	37.1	37	6	30-130/20
87-86-5	Pentachlorophenol	ND		100	86.4	86	89.2	89	3	30-130/20
108-95-2	Phenol	ND		100	30.6	31	32.3	32	5	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	78.7	79	82.0	82	4	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	80.0	80	83.4	83	4	30-130/20
62-53-3	Aniline	ND		50	16.9	34* [a]	18.4	37* [a]	8	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	36.9	74	37.1	74	1	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	29.1	58	30.1	60	3	40-140/20
100-51-6	Benzyl Alcohol	ND		50	31.7	63	32.8	66	3	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	32.7	65	33.4	67	2	40-140/20
106-47-8	4-Chloroaniline	ND		50	25.4	51	28.2	56	10	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	31.4	63	32.3	65	3	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	33.6	67	34.8	70	4	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	39.3	79	40.5	81	3	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	37.9	76	38.8	78	2	40-140/20
122-66-7	1,2-Dipheuylhydrazine	ND		50	34.6	69	34.8	70	1	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	41.2	82	41.8	84	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	38.5	77	39.4	79	2	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	27.7	55	30.3	61	9	40-140/20
132-64-9	Dibenzofuran	ND		50	33.5	67	34.0	68	1	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	33.8	68	34.4	69	2	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	40.4	81	40.8	82	1	40-140/20
84-66-2	Diethyl phthalate	ND		50	29.3	59	30.4	61	4	40-140/20
131-11-3	Dimethyl phthalate	ND		50	14.6	29* [a]	15.6	31* [a]	7	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	37.3	75	37.7	75	1	40-140/20
118-74-1	Hexachlorobenzene	ND		50	38.4	77	38.7	77	1	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31753-MS	W8823.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
OP31753-MSD	W8824.D	1	01/22/13	NS	01/21/13	OP31753	MSW415
MC17700-7	W8825.D	1	01/22/13	NS	01/21/13	OP31753	MSW415

The QC reported here applies to the following samples: Method: SW846 8270C

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	MC17700-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	16.0	32* [a]	16.2	32* [a]	1	40-140/20
67-72-1	Hexachloroethane	ND		50	24.5	49	24.9	50	2	40-140/20
78-59-1	Isophorone	ND		50	38.5	77	39.7	79	3	40-140/20
88-74-4	2-Nitroaniline	ND		50	39.3	79	39.5	79	1	40-140/20
99-09-2	3-Nitroaniline	ND		50	25.7	51	28.7	57	11	40-140/20
100-01-6	4-Nitroaniline	ND		50	33.4	67	35.1	70	5	40-140/20
98-95-3	Nitrobenzene	ND		50	35.3	71	36.4	73	3	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	21.7	43	22.6	45	4	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	39.1	78	40.4	81	3	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	36.7	73	36.5	73	1	40-140/20
110-86-1	Pyridine	ND		50	16.8	34* [a]	17.4	35* [a]	4	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17700-7	Limits
367-12-4	2-Fluorophenol	39%	41%	25%	15-110%
4165-62-2	Phenol-d5	28%	30%	19%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	92%	61%	15-110%
4165-60-0	Nitrobenzene-d5	71%	73%	52%	30-130%
321-60-8	2-Fluorobiphenyl	63%	64%	42%	30-130%
1718-51-0	Terphenyl-d14	75%	76%	72%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Ontside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31754-MS	U11910.D	1	01/23/13	NS	01/21/13	OP31754	MSU617
OP31754-MSD	U11911.D	1	01/23/13	NS	01/21/13	OP31754	MSU617
MC17700-8	U11912.D	1	01/23/13	NS	01/21/13	OP31754	MSU617

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17672-1, MC17672-2, MC17672-3, MC17672-4

CAS No.	Compound	MC17700-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	38.4	77	37.9	76	1	40-140/20
208-96-8	Acenaphthylene	ND		50	28.2	56	28.2	56	0	40-140/20
120-12-7	Anthracene	ND		50	38.9	78	39.4	79	1	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	41.3	83	42.3	85	2	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	36.8	74	38.0	76	3	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	37.9	76	39.4	79	4	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	38.6	77	40.0	80	4	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	39.5	79	41.8	84	6	40-140/20
218-01-9	Chrysene	ND		50	40.4	81	41.7	83	3	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	38.6	77	40.0	80	4	40-140/20
206-44-0	Fluoranthene	ND		50	42.6	85	43.4	87	2	40-140/20
86-73-7	Fluorene	ND		50	38.2	76	38.6	77	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	37.8	76	39.3	79	4	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	35.7	71	36.5	73	2	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	33.3	67	33.9	68	2	40-140/20
85-01-8	Phenanthrene	ND		50	40.6	81	40.2	80	1	40-140/20
129-00-0	Pyrene	ND		50	40.7	81	41.5	83	2	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17700-8	Limits
367-12-4	2-Fluorophenol	39%	41%	26%	15-110%
4165-62-2	Phenol-d5	29%	30%	20%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	75%	54%	15-110%
4165-60-0	Nitrobenzene-d5	69%	72%	53%	30-130%
321-60-8	2-Fluorobiphenyl	72%	75%	52%	30-130%
1718-51-0	Terphenyl-d14	79%	82%	78%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU617-CC609	Injection Date:	01/23/13
Lab File ID:	U11905.D	Injection Time:	12:39
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	140513	3.35	342789	4.32	173669	5.74	303576	6.99	210916	9.75	413494	11.15
Upper Limit [a]	281026	3.85	685578	4.82	347338	6.24	607152	7.49	421832	10.25	826988	11.65
Lower Limit [b]	70257	2.85	171395	3.82	86835	5.24	151788	6.49	105458	9.25	206747	10.65
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
ZZZZZZ	153966	3.35	373582	4.32	190159	5.74	333684	6.99	242966	9.75	469545	11.15
ZZZZZZ	157431	3.35	382245	4.32	195292	5.73	329938	6.99	235618	9.75	460041	11.15
OP31754-MB	166028	3.35	405433	4.32	208225	5.74	357026	6.99	261030	9.75	514697	11.15
OP31754-BS	165163	3.35	401393	4.32	206438	5.74	360801	6.99	244324	9.76	488700	11.16
OP31754-MS	158641	3.35	390590	4.32	201025	5.74	353583	6.99	237681	9.76	461043	11.16
OP31754-MSD	162059	3.35	394539	4.32	204712	5.74	356674	6.99	240838	9.76	484291	11.16
MC17700-8	154105	3.35	383535	4.32	200085	5.73	343068	6.99	249571	9.75	482150	11.15
MC17672-1	148350	3.35	363115	4.32	182496	5.74	326182	6.99	241470	9.75	452171	11.15
MC17672-2	145886	3.35	355646	4.32	183523	5.74	328797	6.99	244565	9.75	463088	11.16
MC17672-3	155539	3.35	394020	4.32	201794	5.74	344061	6.99	255936	9.75	484931	11.15
MC17672-4	161761	3.35	404077	4.32	204850	5.74	362246	6.99	268460	9.75	504325	11.16
ZZZZZZ	145823	3.35	358427	4.32	185160	5.73	319934	6.99	233575	9.75	445600	11.15
ZZZZZZ	148770	3.35	364295	4.32	189115	5.73	325306	6.99	238895	9.75	460574	11.15
ZZZZZZ	158082	3.35	383060	4.32	197537	5.73	341249	6.99	246983	9.75	474489	11.15
ZZZZZZ	151553	3.35	368697	4.32	188277	5.73	325211	6.99	239103	9.75	463330	11.15
ZZZZZZ	154315	3.35	383415	4.32	198590	5.73	331004	6.99	242097	9.75	464917	11.15
ZZZZZZ	154900	3.35	377842	4.32	194031	5.73	331261	6.99	239813	9.75	461466	11.15
ZZZZZZ	150702	3.35	368817	4.32	190973	5.73	326710	6.99	240402	9.75	462212	11.15
ZZZZZZ	149610	3.35	373754	4.32	192296	5.73	325753	6.99	236632	9.75	454046	11.15
ZZZZZZ	151604	3.35	382173	4.32	197636	5.73	333382	6.99	245371	9.75	465565	11.15
OP31762-MB	125136	3.35	313928	4.32	159310	5.73	274395	6.99	196079	9.75	378931	11.15
OP31762-BS	129609	3.35	31743I	4.32	162529	5.74	286133	6.99	190820	9.76	378769	11.15
OP31762-MS	128952	3.35	320695	4.32	162824	5.74	289825	6.99	193030	9.75	376893	11.15
OP31762-MSD	125240	3.35	313288	4.32	157604	5.74	276352	6.99	189393	9.75	371825	11.15
MC17692-5	132024	3.35	324716	4.32	162125	5.73	279495	6.99	203419	9.75	391983	11.15
ZZZZZZ	130769	3.35	318304	4.32	162712	5.73	278663	6.99	202351	9.75	385448	11.15
ZZZZZZ	193578	3.35	475542	4.32	247855	5.74	422842	6.99	314500	9.75	621780	11.16

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU617-CC609	Injection Date:	01/23/13
Lab File ID:	U11905.D	Injection Time:	12:39
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW415-CC399	Injection Date:	01/22/13
Lab File ID:	W8820.D	Injection Time:	15:20
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	1S 2 AREA	RT	1S 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	67860	4.14	263414	5.14	166256	6.59	303767	7.95	382380	10.90	339357	12.49
Upper Limit [a]	135720	4.64	526828	5.64	332512	7.09	607534	8.45	764760	11.40	678714	12.99
Lower Limit [b]	33930	3.64	131707	4.64	83128	6.09	151884	7.45	191190	10.40	169679	11.99
Lab Sample ID	IS 1 AREA	RT	1S 2 AREA	RT	IS 3 AREA	RT	1S 4 AREA	RT	1S 5 AREA	RT	IS 6 AREA	RT
OP31753-MB	78279	4.14	303251	5.14	191386	6.59	352288	7.95	414082	10.89	394708	12.49
OP31753-BS	86431	4.14	327513	5.14	199078	6.59	343592	7.95	388077	10.90	354761	12.49
OP31753-MS	79541	4.14	304802	5.14	189015	6.59	331619	7.95	388155	10.90	360416	12.49
OP31753-MSD	79125	4.14	307109	5.14	193729	6.59	346218	7.95	410226	10.90	381719	12.49
MC17700-7	71343	4.14	278779	5.14	175103	6.58	320561	7.95	378776	10.89	360456	12.49
OP31764-MB	83028	4.14	321634	5.14	204671	6.58	370907	7.95	440672	10.89	416408	12.49
OP31764-BS	84507	4.14	326541	5.14	203475	6.59	364275	7.95	426683	10.89	403564	12.49
MC17672-1	71945	4.14	280392	5.14	180858	6.58	329221	7.95	388266	10.89	363350	12.49
MC17672-2	69256	4.14	271530	5.14	176796	6.59	326727	7.95	380191	10.89	359195	12.49
MC17672-3	74981	4.14	290051	5.14	185057	6.58	336840	7.95	401401	10.89	375372	12.49
MC17672-4	83346	4.14	322400	5.14	209778	6.59	384412	7.95	451758	10.89	421073	12.49
ZZZZZZ	75188	4.14	289250	5.14	182682	6.59	335521	7.95	396128	10.89	361135	12.49
ZZZZZZ	68591	4.14	265950	5.14	166076	6.58	301871	7.95	364525	10.89	337299	12.49
ZZZZZZ	73963	4.14	286799	5.14	179726	6.58	330432	7.95	384348	10.89	351387	12.49
ZZZZZZ	70818	4.14	274960	5.14	173115	6.58	317366	7.95	376469	10.89	361516	12.49
ZZZZZZ	72037	4.14	278529	5.14	175505	6.58	324926	7.95	384473	10.89	371595	12.49
ZZZZZZ	71706	4.14	275683	5.14	171456	6.58	310017	7.95	363997	10.89	348090	12.49
ZZZZZZ	72348	4.14	283065	5.14	175365	6.58	318446	7.95	382137	10.89	360091	12.49
OP31764-MS	75413	4.14	292413	5.14	183696	6.58	350678	7.95	501785	10.90	470752	12.49
OP31764-MSD	77621	4.14	301023	5.14	190493	6.59	369496	7.95	517007	10.90	491728	12.49
MC17634-1	80136	4.14	308674	5.14	198407	6.58	380963	7.95	544148	10.90	513221	12.49

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
1S 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
1S 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17672-1	W8828.D	30.0	27.0	80.0	61.0	52.0	52.0
MC17672-2	W8829.D	34.0	34.0	80.0	67.0	53.0	52.0
MC17672-3	W8830.D	32.0	24.0	79.0	62.0	51.0	69.0
MC17672-4	W8831.D	35.0	26.0	86.0	69.0	57.0	71.0
OP31753-BS	W8822.D	40.0	29.0	91.0	74.0	67.0	78.0
OP31753-MB	W8821.D	28.0	21.0	70.0	58.0	49.0	71.0
OP31753-MS	W8823.D	39.0	28.0	87.0	71.0	63.0	75.0
OP31753-MSD	W8824.D	41.0	30.0	92.0	73.0	64.0	76.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17672-1	U11913.D	30.0	27.0	69.0	58.0	65.0	62.0
MC17672-2	UI1914.D	35.0	33.0	67.0	62.0	63.0	62.0
MC17672-3	UI1915.D	33.0	25.0	68.0	60.0	62.0	78.0
MC17672-4	U11916.D	22.0	26.0	71.0	63.0	68.0	79.0
OP31754-BS	U11909.D	41.0	30.0	75.0	73.0	76.0	83.0
OP31754-MB	U11908.D	28.0	21.0	57.0	59.0	60.0	78.0
OP31754-MS	U11910.D	39.0	29.0	72.0	69.0	72.0	79.0
OP31754-MSD	U11911.D	41.0	30.0	75.0	72.0	75.0	82.0

Surrogate Compounds	Recovery Limits
S1 = 2-Flnorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-MB	BK21110.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17672-1, MC17672-2, MC17672-3, MC17672-4, MC17672-6

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	95%	36-173%
460-00-4	Bromofluorobenzene (S)	96%	36-173%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-BS	BK21111.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
OP31788-BSD	BK21112.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17672-1, MC17672-2, MC17672-3, MC17672-4, MC17672-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.067	94	0.12	86	17	60-140/30
106-93-4	1,2-Dibromoethane	0.071	0.066	93	0.12	86	6	60-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	Bromofluorobenzene (S)	104%	148%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	151%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-MS	BK21113.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
OP31788-MSD	BK21114.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
MC17722-3	BK21117.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17672-1, MC17672-2, MC17672-3, MC17672-4, MC17672-6

CAS No.	Compound	MC17722-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0681	0.062	91	0.065	95	5	64-141/29
106-93-4	1,2-Dibromoethane	0.21		0.0681	0.32	162	0.36	220* [a]	12	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17722-3	Limits
460-00-4	Bromofluorobenzene (S)	94%	90%	77%	36-173%
460-00-4	Bromofluorobenzene (S)	106%	110%	97%	36-173%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17672-1	BK21127.D	89.0	107.0
MC17672-2	BK21128.D	94.0	116.0
MC17672-3	BK21129.D	86.0	108.0
MC17672-4	BK21130.D	95.0	107.0
MC17672-6	BK21132.D	79.0	100.0
OP31788-BS	BK21111.D	104.0	104.0
OP31788-BSD	BK21112.D	148.0	151.0
OP31788-MB	BK21110.D	95.0	96.0
OP31788-MS	BK21113.D	94.0	106.0
OP31788-MSD	BK21114.D	90.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBK760-ICC760	Injection Date:	01/29/13
Lab File ID:	BK21105.D	Injection Time:	10:12
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.69	4.44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31788-MB	BK21110.D	01/29/13	12:14	4.69	4.43
OP31788-BS	BK21111.D	01/29/13	12:39	4.69	4.44
OP31788-BSD	BK21112.D	01/29/13	13:03	4.69	4.43
OP31788-MS	BK21113.D	01/29/13	13:28	4.69	4.43
OP31788-MSD	BK21114.D	01/29/13	13:52	4.69	4.43
ZZZZZZ	BK21115.D	01/29/13	14:16	4.69	4.43
ZZZZZZ	BK21116.D	01/29/13	14:41	4.69	4.43
MC17722-3	BK21117.D	01/29/13	15:05	4.69	4.43
ZZZZZZ	BK21118.D	01/29/13	15:29	4.69	4.43
ZZZZZZ	BK21119.D	01/29/13	15:54	4.69	4.43

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBK760-CC760	Injection Date:	01/29/13
Lab File ID:	BK21120.D	Injection Time:	16:18
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.69	4.43

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK21121.D	01/29/13	16:42	4.69	4.43
ZZZZZZ	BK21122.D	01/29/13	17:07	4.69	4.43
ZZZZZZ	BK21123.D	01/29/13	17:31	4.69	4.44
ZZZZZZ	BK21124.D	01/29/13	17:56	4.69	4.43
ZZZZZZ	BK21125.D	01/29/13	18:20	4.69	4.43
ZZZZZZ	BK21126.D	01/29/13	18:45	4.69	4.43
MC17672-1	BK21127.D	01/29/13	19:10	4.69	4.43
MC17672-2	BK21128.D	01/29/13	19:34	4.69	4.43
MC17672-3	BK21129.D	01/29/13	19:59	4.69	4.43
MC17672-4	BK21130.D	01/29/13	20:24	4.69	4.43

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17672
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBK760-CC760	Injection Date:	01/29/13
Lab File ID:	BK21131.D	Injection Time:	20:48
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.69	4.43

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC17672-6	BK21132.D	01/29/13	21:13	4.69	4.43
ZZZZZZ	BK21133.D	01/29/13	21:38	4.69	4.43
ZZZZZZ	BK21134.D	01/29/13	22:02	4.69	4.43
ZZZZZZ	BK21135.D	01/29/13	22:27	4.69	4.43
ZZZZZZ	BK21136.D	01/29/13	22:52	4.69	4.43
ZZZZZZ	BK21137.D	01/29/13	23:17	4.69	4.43
GBK760-ECC760	BK21138.D	01/29/13	23:41	4.69	4.43

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17703

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/6/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
TB-ROX-012113-SL	TB-ROX-012113-HCL
P55-ROX-012113	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC and SVOC LCS/LCSD recoveries were outside evaluation criteria. Sample P55-ROX-012113 was diluted due to high levels of VOC target analytes. Professional judgment was used to qualify 2-butanone (MEK) in sample P55-ROX-012113. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated the cooler was received by the laboratory at a temperature of 0.9ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSM1824-BS/BSD	VOCs	Acetone	**133**/129	3	70-130/25

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSM1824-BS/BSD	VOCs	Acrolein	76/**65**	16	70-130/25
MSM1824-BS/BSD	VOCs	Acrylonitrile	125/**147**	16	70-130/25
MSM1824-BS/BSD	VOCs	2-Butanone (MEK)	116/**138**	18	70-130/25
MSM1824-BS/BSD	VOCs	1,4-Dioxane	**135/133**	2	70-130/25
MSM1824-BS/BSD	VOCs	2-Hexanone	129/**132**	3	70-130/25
MSM1824-BS/BSD	VOCs	4-Methyl-2-pentanone (MIBK)	**142/144**	1	70-130/25
MSM1824-BS/BSD	VOCs	Vinyl acetate	**147/139**	6	70-130/25
OP31771-BS	SVOCs	Aniline	**37**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LCSD MSM1824-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
P55-ROX-012113	VOCs	Acrolein	**UJ**
P55-ROX-012113	SVOCs	Aniline	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

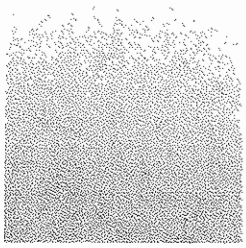
Yes, professional judgment was used to qualify the common laboratory contaminant 2-butanone (MEK) reported at concentrations greater than two times (>2X) the reporting limit (RL), since 2-butanone is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
P55-ROX-012113	2-Butanone (MEK)	253 ug/L	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

02/06/13

Technical Report for



Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17703

Sampling Date: 01/21/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Reviewed on 2/6/2013

Total number of pages in report: 60

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 6
Section 4: Sample Results 7
4.1: MC17703-1: TB-ROX-012113-SL 8
4.2: MC17703-2: TB-ROX-012113-HCL 9
4.3: MC17703-3: P55-ROX-012113 12
Section 5: Misc. Forms 19
5.1: Chain of Custody 20
5.2: Sample Tracking Chronicle 22
5.3: Internal Chain of Custody 23
Section 6: GC/MS Volatiles - QC Data Summaries 24
6.1: Method Blank Summary 25
6.2: Blank Spike Summary 29
6.3: Blank Spike/Blank Spike Duplicate Summary 30
6.4: Matrix Spike/Matrix Spike Duplicate Summary 33
6.5: Internal Standard Area Summaries 37
6.6: Surrogate Recovery Summaries 39
Section 7: GC/MS Semi-volatiles - QC Data Summaries 40
7.1: Method Blank Summary 41
7.2: Blank Spike Summary 44
7.3: Matrix Spike/Matrix Spike Duplicate Summary 47
7.4: Internal Standard Area Summaries 50
7.5: Surrogate Recovery Summaries 52
Section 8: GC Volatiles - QC Data Summaries 54
8.1: Method Blank Summary 55
8.2: Blank Spike/Blank Spike Duplicate Summary 56
8.3: Matrix Spike/Matrix Spike Duplicate Summary 57
8.4: Surrogate Recovery Summaries 58
8.5: GC Surrogate Retention Time Summaries 59

1

Sample Summary

Shell Oil

Job No: MC17703

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC17703-1	01/21/13	00:00	MCCW	01/22/13	AQ	Trip Blank Water	TB-ROX-012113-SL
MC17703-2	01/21/13	00:00	MCCW	01/22/13	AQ	Trip Blank Water	TB-ROX-012113-HCL
MC17703-3	01/21/13	15:00	MCCW	01/22/13	AQ	Ground Water	P55-ROX-012113

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC17703
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	**Report Date**	2/6/2013 10:50:48 AM

1 Sample(s) and 2 Trip Blank(s) were collected on 01/21/2013 and were received at Accutest on 01/22/2013 properly preserved, at 0.9 Deg. C and intact. These Samples received an Accutest job number of MC17703. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSM1824

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17633-1MS, MC17633-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,4-Dioxane, Acetone, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplic ate Recovery(s) for 1,4-Dioxane, Acrolein, 2-Hexanone, 2-Butanone (MEK), Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone (MIBK), Acrylonitrile are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, Acrolein, Hexachlorobutadiene, Methyl Tert Butyl Ether, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSM1824-BS for 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.
- MSM1824-BSD for Acrylonitrile, 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.

Matrix AQ **Batch ID:** MSM1825

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17746-1MS, MC17746-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK) are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270C

Matrix AQ **Batch ID:** OP31771

- All samples were extracted within the recommended method holding time.

Sample(s) MC17750-1MS, MC17750-1MSD were used as the QC samples indicated.

- All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

- OP31771-BS/MS/MSD Recovery(s) for Aniline are outside control limits. Blank Spike meets program technical requirements.
- OP31771-MS/MSD Recovery(s) for Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31772

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17750-2MS, MC17750-2MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31788

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17722-3MS, MC17722-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP31788-MSD for 1,2-Dibromoethane: Outside control limits due to high level in sample relative to spike amount.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE. Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17703).

Summary of Hits

Job Number: MC17703
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/21/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17703-1	TB-ROX-012113-SL					
No hits reported in this sample.						
MC17703-2	TB-ROX-012113-HCL					
No hits reported in this sample.						
MC17703-3	P55-ROX-012113					
Benzene		538	5.0	2.4	ug/l	SW846 8260B
2-Butanone (MEK)		253	50	24	ug/l	SW846 8260B
n-Butylbenzene		20.3	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		14.3	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		1.3 J	5.0	0.64	ug/l	SW846 8260B
Ethylbenzene		366	1.0	0.51	ug/l	SW846 8260B
Isopropylhenzene		93.7	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		5.5	5.0	0.57	ug/l	SW846 8260B
Methyl Tert Bntyl Ether		2.0	1.0	0.41	ug/l	SW846 8260B
Naphthalene		120	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		206	5.0	0.58	ug/l	SW846 8260B
Toluene		262	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		46.0	5.0	0.35	ng/l	SW846 8260B
1,3,5-Trimethylbenzene		31.2	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		356	1.0	0.73	ug/l	SW846 8260B
o-Xylene		382	10	5.8	ug/l	SW846 8260B
Xylene (total)		738	10	5.8	ug/l	SW846 8260B
2,4-Dimethylphenol		2.4 J	10	1.6	ug/l	SW846 8270C
3&4-Methylphenol		1.8 J	10	1.0	ug/l	SW846 8270C
Phenol		3.4 J	5.1	1.0	ug/l	SW846 8270C
Dibenzofuran		1.0 J	2.0	1.0	ug/l	SW846 8270C
Di-n-butyl phthalate		0.69 J	5.1	0.56	ug/l	SW846 8270C
Diethyl phthalate		0.73 J	5.1	0.51	ng/l	SW846 8270C
Acenaphthene		0.54	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.14	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.93	0.10	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		17.6	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		25.4	0.20	0.053	ug/l	SW846 8270C BY SIM
Phenanthrene		1.7	0.051	0.013	ug/l	SW846 8270C BY SIM

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TB-ROX-012113-SL		
Lab Sample ID:	MC17703-1	**Date Sampled:**	01/21/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/22/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21133.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	35.1 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	90%		36-173%
460-00-4	Bromofluorobenzene (S)	111%		36-173%

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

Report of Analysis

Client Sample ID:	TB-ROX-012113-HCL		
Lab Sample ID:	MC17703-2	Date Sampled:	01/21/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/22/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53690.D	1	01/25/13	AMY	n/a	n/a	MSM1824
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-012113-HCL		
Lab Sample ID:	MC17703-2	Date Sampled:	01/21/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/22/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-ROX-012113-HCL		
Lab Sample ID:	MC17703-2	**Date Sampled:**	01/21/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/22/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

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

Report of Analysis

Client Sample ID:	P55-ROX-012113		
Lab Sample ID:	MC17703-3	**Date Sampled:**	01/21/13
Matrix:	AQ - Ground Water	**Date Received:**	01/22/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53703.D	1	01/25/13	AMY	n/a	n/a	MSM1824
Run #2	M53728.D	10	01/28/13	AMY	n/a	n/a	MSM1825

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	u5
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	538 [a]	5.0	2.4	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	~~253 [a]~~ u	~~50~~ 253	24	ug/l	u
104-51-8	n-Butylbenzene	20.3	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	14.3	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	1.3	5.0	0.64	ug/l	J
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	P55-ROX-012113		
Lab Sample ID:	MC17703-3	**Date Sampled:**	01/21/13
Matrix:	AQ - Ground Water	**Date Received:**	01/22/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	366	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	93.7	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	5.5	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.0	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	120	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	206	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	262	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	46.0	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	31.2	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	356	1.0	0.73	ug/l	
95-47-6	o-Xylene	382 [a]	10	5.8	ug/l	
1330-20-7	Xylene (total)	738 [a]	10	5.8	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:	P55-ROX-012113		
Lab Sample ID:	MC17703-3	**Date Sampled:**	01/21/13
Matrix:	AQ - Ground Water	**Date Received:**	01/22/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%	96%	70-130%
2037-26-5	Toluene-D8	100%	90%	70-130%
460-00-4	4-Bromofluorobenzene	99%	107%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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:	P55-ROX-012113		
Lab Sample ID:	MC17703-3	**Date Sampled:**	01/21/13
Matrix:	AQ - Ground Water	**Date Received:**	01/22/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11949.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.72	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	2.4	10	1.6	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	1.8	10	1.0	ug/l	J
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	3.4	5.1	1.0	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.65	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.74	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.67	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.98	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.82	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.78	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.91	ug/l	
132-64-9	Dibenzofuran	1.0	2.0	1.0	ug/l	J
84-74-2	Di-n-butyl phthalate	0.69	5.1	0.56	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.1	1.3	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:	P55-ROX-012113		
Lab Sample ID:	MC17703-3	Date Sampled:	01/21/13
Matrix:	AQ - Ground Water	Date Received:	01/22/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	0.73	5.1	0.51	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.1	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.47	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.54	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	1.6	ug/l	
78-59-1	Isophorone	ND	5.1	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.88	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.98	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	26%		15-110%
4165-62-2	Phenol-d5	21%		15-110%
118-79-6	2,4,6-Tribromophenol	69%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	58%		30-130%
1718-51-0	Terphenyl-d14	51%		30-130%

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

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

Report of Analysis

Client Sample ID:	P55-ROX-012113		
Lab Sample ID:	MC17703-3	Date Sampled:	01/21/13
Matrix:	AQ - Ground Water	Date Received:	01/22/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I81343.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.54	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.14	0.10	0.014	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.074	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.93	0.10	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
90-12-0	1-Methylnaphthalene	17.6	0.20	0.14	ug/l	
91-57-6	2-Methylnapbthalene	25.4	0.20	0.053	ug/l	
85-01-8	Phenanthrene	1.7	0.051	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	29%		15-110%
4165-62-2	Phenol-d5	23%		15-110%
118-79-6	2,4,6-Tribromophenol	72%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	59%		30-130%
1718-51-0	Terphenyl-d14	48%		30-130%

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:	P55-ROX-012113		
Lab Sample ID:	MC17703-3	Date Sampled:	01/21/13
Matrix:	AQ - Ground Water	Date Received:	01/22/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21134.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	86%		36-173%
460-00-4	Bromofluorobenzene (S)	111%		36-173%

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

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCATION)

☐ XENCO (_____)

☐ CALSCIENCE (_____)

☐ OTHER (Accutest Labs: 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200))

☐ SPL (_____)

Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:

☑ ENV SERVICES	☐ MOTIVA RETAIL	☐ SHELL RETAIL
☐ MOTIVA SOBOH	☐ CONSULTANT	☐ LUBES
☐ SHELL PIPELINE	☐ OTHER	

Print Bill To Contact Name: Dave Palmer

PO #

INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0

SAP #: 3 4 0 0 6 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE 1/21/13

PAGE 1 of 1

CONSULTANT COMPANY	URS CORPORATION
ADDRESS	1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to)	Dave Palmer and Elizabeth Kunkel
TELEPHONE	314-429-0100
FAX	314-429-0462
SITE ADDRESS (Street and City)	900 South Central Ave, ROXANA
STATE	IL
GLOBAL ID NO.	
CONSULTANT PROJECT NO.	Roxana Quarterly GW / 21662850.03001
SAMPLER NAME(S) (Print)	Mike Corbett, Craig Williams
LAB USE ONLY	MC17703

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ IA - RWQCB REPORT FORMAT ☐ UST AGENCY

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
- Please include 'J' values on Reports
- Please provide sample receipt upon login

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	PRESERVATIVE HNO3	PRESERVATIVE H2SO4	PRESERVATIVE NONE	PRESERVATIVE OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	TB-ROX-012113-SL	1/21/13	0000	Water	2					2		X			—	
-2	TB-ROX-012113-HCL	↓	0000	Water					2	2	X				—	
-3	P55-ROX-012113	↓	1500	Water	2			2	2	6	X	X	X	X	0.9	
																16A, 2I3

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Relinquished by (Signature)	Received by (Signature)	Date	Time
	FED EX	1/21/13	1700
Relinquished by (Signature)	Received by (Signature)	Date	Time
FX		1-22-13	9:00
Relinquished by (Signature)	Received by (Signature)	Date	Time

05/2006 Revision

0.9 C ✓

5.1

MC17703: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17703 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/22/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SOUTH CENTRAL AVE No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present	☑ ☐	3 COC Present	☑ ☐
2. Custody Seals Intact	☑ ☐	4 Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1 Temp criteria achieved:	☑ ☐
2 Cooler temp verification	Infared gun
3 Cooler media	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1 Trip Blank present / cooler:	☑ ☐	☐
2 Trip Blank listed on COC	☑ ☐	☐
3. Samples preserved properly	☑ ☐	
4 VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1 Sample labels present on bottles:	☑ ☐
2 Container labeling complete	☑ ☐
3 Sample container label / COC agree.	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3 Condition of sample	Intact

Sample Integrity - Instructions	Y or N	N/A
1 Analysis requested is clear.	☑ ☐	
2 Bottles received for unspecified tests	☐ ☑	
3 Sufficient volume recvd for analysis	☑ ☐	
4. Compositing instructions clear	☐ ☐	☑
5 Filtering instructions clear	☐ ☐	☑

Comments

Accutest Laboratories
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5.1

MC17703: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17703

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17703-1	Collected: 21-JAN-13 00:00 By: MCCW TB-ROX-012113-SL		Received: 22-JAN-13 By:			
MC17703-1	SW846 8011	29-JAN-13 21:38	NK	24-JAN-13	BJ	V8011SL
MC17703-2	Collected: 21-JAN-13 00:00 By: MCCW TB-ROX-012113-HCL		Received: 22-JAN-13 By:			
MC17703-2	SW846 8260B	25-JAN-13 10:44	AMY			V8260SL+
MC17703-3	Collected: 21-JAN-13 15:00 By: MCCW P55-ROX-012113		Received: 22-JAN-13 By:			
MC17703-3	SW846 8270C	24-JAN-13 12:17	NS	23-JAN-13	MT	AB8270SL+
MC17703-3	SW846 8270C BY SIM	24-JAN-13 15:52	NS	23-JAN-13	MT	B8270SIMSL
MC17703-3	SW846 8260B	25-JAN-13 16:44	AMY			V8260SL+
MC17703-3	SW846 8260B	28-JAN-13 14:33	AMY			V8260SL+
MC17703-3	SW846 8011	29-JAN-13 22:02	NK	24-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/22/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17703-1.1	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17703-1.1	Bijan Jafari		02/02/13 13:41	Depleted
MC17703-2.1	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17703-2.1	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17703-2.1	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17703-2.1	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17703-3.1	Walk In Ref #22	Michael Rolo	01/23/13 07:14	Retrieve from Storage
MC17703-3.1	Michael Rolo		01/24/13 08:08	Depleted
MC17703-3.3	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17703-3.3	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17703-3.3	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17703-3.3	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17703-3.4	VOC Ref #2	Amy Min Yang	01/28/13 09:55	Retrieve from Storage
MC17703-3.4	Amy Min Yang	GCMSM	01/28/13 09:55	Load on Instrument
MC17703-3.4	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17703-3.4	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17703-3.5	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17703-3.5	Bijan Jafari		02/02/13 13:41	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ng/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

6.1.1

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-MB	M53719.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.24	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-BS	M53717.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	49.3	99	70-130
78-93-3	2-Butanone (MEK)	50	56.7	113	70-130
95-47-6	o-Xylene	50	57.2	114	70-130
1330-20-7	Xylene (total)	150	166	111	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	66.3	133* a	64.3	129	3	70-130/25
107-02-8	Acrolein	250	190	76	162	65* a	16	70-130/25
107-13-1	Acrylonitrile	50	62.3	125	73.4	147* a	16	70-130/25
71-43-2	Benzene	50	51.2	102	51.3	103	0	70-130/25
108-86-1	Bromobenzene	50	45.7	91	45.3	91	1	70-130/25
74-97-5	Bromochloromethane	50	59.7	119	60.4	121	1	70-130/25
75-27-4	Bromodichloromethane	50	51.7	103	51.8	104	0	70-130/25
75-25-2	Bromoform	50	43.3	87	49.8	100	14	70-130/25
74-83-9	Bromomethane	50	57.0	114	51.7	103	10	70-130/25
78-93-3	2-Butanone (MEK)	50	57.8	116	68.9	138* a	18	70-130/25
104-51-8	n-Butylbenzene	50	42.5	85	45.7	91	7	70-130/25
135-98-8	sec-Butylbenzene	50	52.3	105	51.0	102	3	70-130/25
98-06-6	tert-Butylbenzene	50	51.7	103	49.5	99	4	70-130/25
75-15-0	Carbon disulfide	50	56.0	112	54.3	109	3	70-130/25
56-23-5	Carbon tetrachloride	50	51.6	103	52.1	104	1	70-130/25
108-90-7	Chlorobenzene	50	50.1	100	53.9	108	7	70-130/25
75-00-3	Chloroethane	50	58.9	118	49.3	99	18	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	39.7	79	40.4	81	2	70-130/25
67-66-3	Chloroform	50	59.7	119	60.6	121	1	70-130/25
74-87-3	Chloromethane	50	57.1	114	51.3	103	11	70-130/25
95-49-8	o-Chlorotoluene	50	52.4	105	47.0	94	11	70-130/25
106-43-4	p-Chlorotoluene	50	51.9	104	47.0	94	10	70-130/25
124-48-1	Dibromochloromethane	50	44.7	89	50.1	100	11	70-130/25
95-50-1	1,2-Dichlorobenzene	50	46.4	93	50.3	101	8	70-130/25
541-73-1	1,3-Dichlorobenzene	50	47.9	96	47.8	96	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	42.1	84	43.0	86	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	43.3	87	44.7	89	3	70-130/25
75-34-3	1,1-Dichloroethane	50	58.1	116	58.7	117	1	70-130/25
107-06-2	1,2-Dichloroethane	50	58.5	117	57.7	115	1	70-130/25
75-35-4	1,1-Dichloroethene	50	59.6	119	58.6	117	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	53.7	107	57.2	114	6	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	56.0	112	55.1	110	2	70-130/25
78-87-5	1,2-Dichloropropane	50	54.0	108	53.7	107	1	70-130/25
142-28-9	1,3-Dichloropropane	50	47.9	96	51.2	102	7	70-130/25
594-20-7	2,2-Dichloropropane	50	64.5	129	64.3	129	0	70-130/25
563-58-6	1,1-Dichloropropene	50	57.8	116	57.9	116	0	70-130/25

* = Outside of Control Limits.

6.3.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	56.0	112	55.8	112	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	61.8	124	60.7	121	2	70-130/25
123-91-1	1,4-Dioxane	250	338	135* a	332	133* a	2	70-130/25
97-63-2	Ethyl methacrylate	50	64.6	129	61.7	123	5	77-137/25
100-41-4	Ethylbenzene	50	47.0	94	48.8	98	4	70-130/25
87-68-3	Hexachlorobutadiene	50	39.2	78	42.6	85	8	70-130/25
591-78-6	2-Hexanone	50	64.3	129	66.1	132* a	3	70-130/25
98-82-8	Isopropylbenzene	50	57.1	114	54.7	109	4	70-130/25
99-87-6	p-Isopropyltoluene	50	47.2	94	47.8	96	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	60.1	120	59.9	120	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	71.1	142* b	72.1	144* b	1	70-130/25
74-95-3	Methylene bromide	50	54.5	109	54.2	108	1	70-130/25
75-09-2	Methylene chloride	50	55.2	110	56.7	113	3	70-130/25
91-20-3	Naphthalene	50	51.2	102	57.1	114	11	70-130/25
103-65-1	n-Propylbenzene	50	55.0	110	49.8	100	10	70-130/25
100-42-5	Styrene	50	48.0	96	51.4	103	7	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	44.8	90	47.8	96	6	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	46.0	92	42.8	86	7	70-130/25
127-18-4	Tetrachloroethene	50	44.1	88	50.9	102	14	70-130/25
108-88-3	Toluene	50	55.9	112	54.8	110	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	46.3	93	47.7	95	3	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	44.6	89	48.0	96	7	70-130/25
71-55-6	1,1,1-Trichloroethane	50	58.8	118	60.5	121	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.4	103	51.5	103	0	70-130/25
79-01-6	Trichloroethene	50	50.4	101	50.5	101	0	70-130/25
75-69-4	Trichlorofluoromethane	50	60.5	121	54.3	109	11	70-130/25
96-18-4	1,2,3-Trichloropropane	50	51.0	102	46.9	94	8	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	47.5	95	46.1	92	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	49.7	99	46.2	92	7	70-130/25
108-05-4	Vinyl Acetate	50	73.4	147* a	69.3	139* a	6	70-130/25
75-01-4	Vinyl chloride	50	58.5	117	52.5	105	11	70-130/25
	m,p-Xylene	100	103	103	109	109	6	70-130/25
95-47-6	o-Xylene	50	52.9	106	57.1	114	8	70-130/25
1330-20-7	Xylene (total)	150	155	103	166	111	7	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	97%	70-130%
2037-26-5	Toluene-D8	97%	96%	70-130%
460-00-4	4-Bromofluorobenzene	102%	93%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	224	90	216	86	4	70-130/30
107-02-8	Acrolein	ND		1250	1600	128	1660	133* [a]	4	70-130/30
107-13-1	Acrylonitrile	ND		250	338	135* [a]	314	126	7	70-130/30
71-43-2	Benzene	ND		250	239	96	218	87	9	70-130/30
108-86-1	Bromobenzene	ND		250	216	86	207	83	4	70-130/30
74-97-5	Bromochloromethane	ND		250	277	111	284	114	2	70-130/30
75-27-4	Bromodichloromethane	ND		250	244	98	259	104	6	70-130/30
75-25-2	Bromoform	ND		250	229	92	191	76	18	70-130/30
74-83-9	Bromomethane	ND		250	246	98	236	94	4	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	277	111	344	138* [a]	22	70-130/30
104-51-8	n-Butylbenzene	ND		250	222	89	224	90	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	243	97	249	100	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	253	101	257	103	2	70-130/30
75-15-0	Carbon disulfide	ND		250	288	115	279	112	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	247	99	219	88	12	70-130/30
108-90-7	Chlorobenzene	ND		250	253	101	219	88	14	70-130/30
75-00-3	Chloroethane	ND		250	231	92	230	92	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		250	256	102	261	104	2	70-130/30
74-87-3	Chloromethane	ND		250	237	95	239	96	1	70-130/30
95-49-8	o-Chlorotoluene	ND		250	251	100	243	97	3	70-130/30
106-43-4	p-Chlorotoluene	ND		250	254	102	249	100	2	70-130/30
124-48-1	Dibromochloromethane	ND		250	231	92	198	79	15	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	230	92	223	89	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	228	91	219	88	4	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	207	83	205	82	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	214	86	201	80	6	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	261	104	314	126	18	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	270	108	236	94	13	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	290	116	278	111	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	250	100	278	111	11	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	280	112	278	111	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	246	98	250	100	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	228	91	207	83	10	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	263	105	256	102	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	288	115	235	94	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

6.4.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	271	108	271	108	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	263	105	304	122	14	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1230	98	1270	102	3	70-130/30
97-63-2	Ethyl methacrylate	ND		250	286	114	320	128	11	72-139/30
100-41-4	Ethylbenzene	ND		250	225	90	216	86	4	70-130/30
87-68-3	Hexachlorohutadiene	ND		250	180	72	173	69* [a]	4	70-130/30
591-78-6	2-Hexanone	ND		250	274	110	255	102	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	274	110	264	106	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	236	94	237	95	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	16.6		250	316	120	348	133* [a]	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	338	135* [a]	324	130	4	70-130/30
74-95-3	Methylene bromide	ND		250	246	98	261	104	6	70-130/30
75-09-2	Methylene chloride	ND		250	287	115	278	111	3	70-130/30
91-20-3	Naphthalene	ND		250	244	98	231	92	5	70-130/30
103-65-1	n-Propylhenzene	ND		250	264	106	254	102	4	70-130/30
100-42-5	Styrene	ND		250	258	103	211	84	20	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	225	90	203	81	10	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	222	89	231	92	4	70-130/30
127-18-4	Tetrachloroethene	ND		250	235	94	188	75	22	70-130/30
108-88-3	Toluene	ND		250	261	104	277	111	6	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	212	85	198	79	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	211	84	196	78	7	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	267	107	234	94	13	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	224	90	255	102	13	70-130/30
79-01-6	Trichloroethene	ND		250	229	92	226	90	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	295	118	284	114	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	221	88	250	100	12	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	224	90	225	90	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	232	93	228	91	2	70-130/30
108-05-4	Vinyl Acetate	ND		250	305	122	398	159* [a]	26	70-130/30
75-01-4	Vinyl chloride	ND		250	237	95	228	91	4	70-130/30
	m,p-Xylene	ND		500	554	111	455	91	20	70-130/30
95-47-6	o-Xylene	ND		250	289	116	238	95	19	70-130/30
1330-20-7	Xylene (total)	ND		750	844	113	693	92	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-2, MC17703-3

CAS No.	Surrogate Recoveries	MS	MSD	MC17633-1	Limits
1868-53-7	Dibromofluoromethane	89%	92%	97%	70-130%
2037-26-5	Toluene-D8	88%	101%	97%	70-130%
460-00-4	4-Bromofluorobenzene	104%	105%	95%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17746-1MS	M53726.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1MSD	M53727.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1	M53720.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17703-3

CAS No.	Compound	MC17746-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	252	101	252	101	0	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	303	121	327	131* [a]	8	70-130/30
95-47-6	o-Xylene	ND		250	272	109	262	105	4	70-130/30
1330-20-7	Xylene (total)	ND		750	804	107	776	103	4	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC17746-1	Limits
1868-53-7	Dibromofluoromethane	92%	91%	102%	70-130%
2037-26-5	Toluene-D8	86%	86%	97%	70-130%
460-00-4	4-Bromofluorobenzene	93%	90%	100%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1824-CC1739	Injection Date:	01/25/13
Lab File ID:	M53685.D	Injection Time:	08:24
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	118871	9.36	178351	10.24	112741	13.52	130740	16.08	53575	6.86
Upper Limit [a]	237742	9.86	356702	10.74	225482	14.02	261480	16.58	107150	7.36
Lower Limit [b]	59436	8.86	89176	9.74	56371	13.02	65370	15.58	26788	6.36
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1824-BS	118062	9.36	190648	10.24	111020	13.52	128658	16.08	51434	6.86
MSM1824-BSD	119560	9.36	193762	10.24	96893	13.52	125158	16.08	52118	6.86
MSM1824-MB	115975	9.36	186664	10.24	103939	13.52	131964	16.08	58412	6.86
MC17703-2	116646	9.36	172128	10.24	101349	13.52	123828	16.08	51786	6.86
ZZZZZZ	112742	9.36	174545	10.24	95190	13.52	125698	16.08	47384	6.85
ZZZZZZ	114600	9.36	169983	10.24	93037	13.52	126988	16.08	53646	6.86
ZZZZZZ	114835	9.36	185155	10.24	94153	13.52	127887	16.08	45275	6.86
MC17633-1	117426	9.36	186014	10.24	103252	13.52	126712	16.08	53764	6.86
ZZZZZZ	114806	9.36	174081	10.24	93255	13.52	120597	16.08	46164	6.85
ZZZZZZ	109667	9.36	183993	10.24	107074	13.52	118881	16.08	51825	6.85
ZZZZZZ	113470	9.36	186502	10.24	104750	13.52	120533	16.08	48736	6.86
ZZZZZZ	112877	9.35	183673	10.24	107392	13.52	128533	16.08	53051	6.86
ZZZZZZ	115881	9.36	177418	10.24	88232	13.52	130887	16.08	55870	6.86
MC17633-1MS	116950	9.36	192627	10.24	100432	13.52	134327	16.08	47407	6.85
MC17633-1MSD	117246	9.36	183464	10.24	119111	13.52	133610	16.08	47429	6.86
MC17703-3	122438	9.36	186640	10.24	110665	13.52	130826	16.08	59991	6.85
ZZZZZZ	120356	9.36	186580	10.24	89622	13.52	124272	16.08	54855	6.86
ZZZZZZ	117525	9.36	188551	10.24	95883	13.52	132247	16.08	53865	6.85

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1825-CC1739	Injection Date:	01/28/13
Lab File ID:	M53715.D	Injection Time:	08:31
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	115098	9.36	179840	10.24	116584	13.52	133195	16.08	47366	6.86
Upper Limit [a]	230196	9.86	359680	10.74	233168	14.02	266390	16.58	94732	7.36
Lower Limit [b]	57549	8.86	89920	9.74	58292	13.02	66598	15.58	23683	6.36
Lab Sample ID	**IS 1 AREA**	**RT**	**IS 2 AREA**	**RT**	**IS 3 AREA**	**RT**	**IS 4 AREA**	**RT**	**IS 5 AREA**	**RT**
MSM1825-BS	117635	9.36	184384	10.24	101551	13.52	131472	16.08	47466	6.87
MSM1825-MB	114045	9.36	179312	10.24	99581	13.52	135297	16.08	45263	6.85
MC17746-1	111422	9.36	185026	10.24	94743	13.52	121530	16.08	44402	6.86
ZZZZZZ	113924	9.36	183768	10.24	109357	13.52	128235	16.08	43651	6.86
ZZZZZZ	111089	9.36	169466	10.24	107190	13.52	125936	16.08	44461	6.85
ZZZZZZ	112201	9.36	183438	10.24	96013	13.51	124719	16.08	44490	6.86
ZZZZZZ	109472	9.36	163590	10.24	87644	13.52	122459	16.08	41264	6.86
ZZZZZZ	111457	9.36	180551	10.24	99226	13.52	126939	16.08	45287	6.85
MC17746-1MS	112646	9.36	178334	10.24	95322	13.51	125407	16.08	42820	6.86
MC17746-1MSD	110952	9.36	181356	10.24	99870	13.52	122918	16.08	42097	6.85
MC17703-3	108071	9.36	173299	10.24	112193	13.52	125841	16.08	48134	6.86
ZZZZZZ	115943	9.36	164986	10.24	90552	13.52	125616	16.08	43138	6.85
ZZZZZZ	113062	9.36	181150	10.24	85798	13.52	128184	16.08	47905	6.86
ZZZZZZ	114760	9.36	167738	10.24	93766	13.52	121562	16.08	52399	6.86
ZZZZZZ	116110	9.36	185695	10.24	89490	13.52	128151	16.08	48574	6.87
ZZZZZZ	109529	9.36	181328	10.24	92391	13.52	126155	16.08	48060	6.86
ZZZZZZ	112158	9.36	177985	10.24	93105	13.52	130325	16.08	44918	6.85
ZZZZZZ	113453	9.36	184403	10.24	103710	13.52	128077	16.08	47252	6.86
ZZZZZZ	112347	9.36	178065	10.24	102740	13.52	129022	16.08	47413	6.86
ZZZZZZ	107125	9.36	185385	10.24	110790	13.52	131635	16.08	53459	6.86
ZZZZZZ	115698	9.36	181913	10.24	96864	13.52	128514	16.08	50072	6.86

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.5.2

Volatile Surrogate Recovery Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17703-2	M53690.D	91.0	104.0	90.0
MC17703-3	M53728.D	96.0	90.0	107.0
MC17703-3	M53703.D	94.0	100.0	99.0
MC17633-1MS	M53700.D	89.0	88.0	104.0
MC17633-1MSD	M53701.D	92.0	101.0	105.0
MC17746-1MS	M53726.D	92.0	86.0	93.0
MC17746-1MSD	M53727.D	91.0	86.0	90.0
MSM1824-BS	M53686.D	98.0	97.0	102.0
MSM1824-BSD	M53687.D	97.0	96.0	93.0
MSM1824-MB	M53689.D	99.0	95.0	98.0
MSM1825-BS	M53717.D	98.0	105.0	94.0
MSM1825-MB	M53719.D	94.0	95.0	101.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.6.1

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MB	U11942.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17703-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MB	U11942.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17703-3

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	34%	15-110%
4165-62-2	Phenol-d5	24%	15-110%
118-79-6	2,4,6-Tribromophenol	69%	15-110%
4165-60-0	Nitrobenzene-d5	69%	30-130%
321-60-8	2-Fluorobiphenyl	71%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

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

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31772-MB	I81328.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17703-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	35%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	71%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	72%	30-130%
1718-51-0	Terphenyl-d14	73%	30-130%

Blank Spike Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-BS	U11943.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17703-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	39.3	39	30-130
95-57-8	2-Chlorophenol	100	69.6	70	30-130
59-50-7	4-Chloro-3-methyl phenol	100	77.8	78	30-130
120-83-2	2,4-Dichlorophenol	100	82.2	82	30-130
105-67-9	2,4-Dimethylphenol	100	56.2	56	30-130
51-28-5	2,4-Dinitrophenol	100	112	112	30-130
534-52-1	4,6-Dinitro-o-cresol	100	111	111	30-130
95-48-7	2-Methylphenol	100	60.2	60	30-130
	3&4-Methylphenol	200	108	54	30-130
88-75-5	2-Nitrophenol	100	88.9	89	30-130
100-02-7	4-Nitrophenol	100	43.0	43	30-130
87-86-5	Pentachlorophenol	100	100	100	30-130
108-95-2	Phenol	100	31.3	31	30-130
95-95-4	2,4,5-Trichlorophenol	100	88.3	88	30-130
88-06-2	2,4,6-Trichlorophenol	100	92.9	93	30-130
62-53-3	Aniline	50	18.6	37* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	43.7	87	40-140
85-68-7	Butyl benzyl phthalate	50	40.6	81	40-140
100-51-6	Benzyl Alcohol	50	34.3	69	40-140
91-58-7	2-Chloronaphthalene	50	40.9	82	40-140
106-47-8	4-Chloroaniline	50	24.0	48	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	36.2	72	40-140
111-44-4	bis(2-Chloroethyl)ether	50	61.3	123	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	41.7	83	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	45.2	90	40-140
122-66-7	1,2-Diphenylhydrazine	50	37.7	75	40-140
121-14-2	2,4-Dinitrotoluene	50	50.6	101	40-140
606-20-2	2,6-Dinitrotoluene	50	44.4	89	40-140
91-94-1	3,3'-Dichlorobenzidine	50	28.9	58	40-140
132-64-9	Dibenzofuran	50	40.9	82	40-140
84-74-2	Di-n-butyl phthalate	50	41.5	83	40-140
117-84-0	Di-n-octyl phthalate	50	42.5	85	40-140
84-66-2	Diethyl phthalate	50	42.4	85	40-140
131-11-3	Dimethyl phthalate	50	28.9	58	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	43.1	86	40-140
118-74-1	Hexachlorobenzene	50	47.9	96	40-140

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-BS	U11943.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17703-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	21.9	44	40-140
67-72-1	Hexachloroethane	50	30.7	61	40-140
78-59-1	Isophorone	50	41.0	82	40-140
88-74-4	2-Nitroaniline	50	45.5	91	40-140
99-09-2	3-Nitroaniline	50	30.2	60	40-140
100-01-6	4-Nitroaniline	50	40.7	81	40-140
98-95-3	Nitrobenzene	50	38.4	77	40-140
62-75-9	n-Nitrosodimethylamine	50	24.2	48	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	39.0	78	40-140
86-30-6	N-Nitrosodiphenylamine	50	43.0	86	40-140
110-86-1	Pyridine	50	20.1	40	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	43%	15-110%
4165-62-2	Phenol-d5	31%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	15-110%
4165-60-0	Nitrobenzene-d5	84%	30-130%
321-60-8	2-Fluorobiphenyl	80%	30-130%
1718-51-0	Terphenyl-d14	96%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31772-BS	I81329.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17703-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.9	84	40-140
208-96-8	Acenaphthylene	50	29.3	59	40-140
120-12-7	Anthracene	50	42.2	84	40-140
56-55-3	Benzo(a)anthracene	50	43.3	87	40-140
50-32-8	Benzo(a)pyrene	50	41.1	82	40-140
205-99-2	Benzo(b)fluoranthene	50	44.2	88	40-140
191-24-2	Benzo(g,h,i)perylene	50	46.9	94	40-140
207-08-9	Benzo(k)fluoranthene	50	42.7	85	40-140
218-01-9	Chrysene	50	43.8	88	40-140
53-70-3	Dibenzo(a,h)anthracene	50	44.3	89	40-140
206-44-0	Fluoranthene	50	43.2	86	40-140
86-73-7	Fluorene	50	42.7	85	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.0	88	40-140
90-12-0	1-Methylnaphthalene	50	37.0	74	40-140
91-57-6	2-Methylnaphthalene	50	35.5	71	40-140
85-01-8	Phenanthrene	50	43.9	88	40-140
129-00-0	Pyrene	50	43.9	88	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	41%	15-110%
4165-62-2	Phenol-d5	31%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	15-110%
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	82%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MS	U11944.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
OP31771-MSD	U11945.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
MC17750-1	U11946.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17703-3

CAS No.	Compound	MC17750-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	42.8	43	42.2	42	1	30-130/20
95-57-8	2-Chlorophenol	ND		100	69.1	69	65.8	66	5	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	77.2	77	72.9	73	6	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	80.3	80	77.8	78	3	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	54.0	54	53.4	53	1	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	123	123	125	125	2	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	120	120	118	118	2	30-130/20
95-48-7	2-Methylphenol	ND		100	59.9	60	57.1	57	5	30-130/20
	3&4-Methylphenol	ND		200	107	54	105	53	2	30-130/20
88-75-5	2-Nitrophenol	ND		100	89.1	89	84.2	84	6	30-130/20
100-02-7	4-Nitrophenol	ND		100	41.6	42	41.9	42	1	30-130/20
87-86-5	Pentachlorophenol	ND		100	100	100	100	100	0	30-130/20
108-95-2	Phenol	ND		100	31.2	31	30.3	30	3	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	86.7	87	84.6	85	2	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	91.8	92	88.4	88	4	30-130/20
62-53-3	Aniline	ND		50	17.7	35* [a]	17.4	35* [a]	2	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	43.4	87	41.2	82	5	40-140/20
85-68-7	Butyl benzyl phtbalate	ND		50	40.9	82	37.1	74	10	40-140/20
100-51-6	Benzyl Alcohol	ND		50	33.5	67	32.4	65	3	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	39.4	79	38.2	76	3	40-140/20
106-47-8	4-Chloroaniline	ND		50	22.9	46	25.4	51	10	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	34.8	70	33.5	67	4	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	59.6	119	58.1	116	3	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	40.3	81	38.4	77	5	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	44.0	88	42.2	84	4	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	37.6	75	35.9	72	5	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	48.7	97	47.8	96	2	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	42.1	84	41.3	83	2	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	28.9	58	30.6	61	6	40-140/20
132-64-9	Dibenzofuran	ND		50	39.0	78	37.9	76	3	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	40.7	81	38.3	77	6	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	41.7	83	37.3	75	11	40-140/20
84-66-2	Diethyl phthalate	ND		50	41.1	82	38.8	78	6	40-140/20
131-11-3	Dimethyl phthalate	ND		50	28.8	58	28.8	58	0	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	43.2	86	38.7	77	11	40-140/20
118-74-1	Hexachlorobeuzene	ND		50	47.4	95	42.8	86	10	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MS	U11944.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
OP31771-MSD	U11945.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
MC17750-1	U11946.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17703-3

7.3.1

7

CAS No.	Compound	MC17750-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	21.0	42	19.8	40	6	40-140/20
67-72-1	Hexachloroethane	ND		50	28.4	57	28.9	58	2	40-140/20
78-59-1	Isophorone	ND		50	39.7	79	38.0	76	4	40-140/20
88-74-4	2-Nitroaniline	ND		50	43.3	87	42.5	85	2	40-140/20
99-09-2	3-Nitroaniline	ND		50	28.0	56	29.4	59	5	40-140/20
100-01-6	4-Nitroaniline	ND		50	38.6	77	38.2	76	1	40-140/20
98-95-3	Nitrobenzene	ND		50	37.1	74	35.6	71	4	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	24.1	48	23.3	47	3	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	37.4	75	36.9	74	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	41.7	83	40.9	82	2	40-140/20
110-86-1	Pyridine	ND		50	19.6	39* [b]	19.6	39* [b]	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17750-1	Limits
367-12-4	2-Fluorophenol	43%	42%	36%	15-110%
4165-62-2	Phenol-d5	31%	30%	27%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	85%	73%	15-110%
4165-60-0	Nitrobenzene-d5	75%	72%	72%	30-130%
321-60-8	2-Fluorobiphenyl	78%	75%	74%	30-130%
1718-51-0	Terphenyl-d14	93%	88%	86%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31772-MS	I81330.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027
OP31772-MSD	I81331.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027
MC17750-2	I81332.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

MC17703-3

CAS No.	Compound	MC17750-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	41.2	82	39.3	79	5	40-140/20
208-96-8	Acenaphthylene	ND		50	28.7	57	27.2	54	5	40-140/20
120-12-7	Anthracene	ND		50	40.2	80	39.4	79	2	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	42.0	84	38.8	78	8	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	39.9	80	37.0	74	8	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	42.9	86	38.1	76	12	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	44.6	89	41.4	83	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	40.8	82	39.7	79	3	40-140/20
218-01-9	Chrysene	ND		50	42.6	85	39.8	80	7	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	42.1	84	39.1	78	7	40-140/20
206-44-0	Fluoranthene	ND		50	42.0	84	39.8	80	5	40-140/20
86-73-7	Fluorene	ND		50	41.8	84	40.5	81	3	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	41.8	84	39.0	78	7	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	35.9	72	34.5	69	4	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	33.9	68	32.7	65	4	40-140/20
85-01-8	Phenanthrene	ND		50	42.6	85	40.6	81	5	40-140/20
129-00-0	Pyrene	ND		50	41.9	84	39.8	80	5	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17750-2	Limits
367-12-4	2-Fluorophenol	43%	41%	37%	15-110%
4165-62-2	Phenol-d5	32%	31%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	88%	85%	75%	15-110%
4165-60-0	Nitrobenzene-d5	75%	73%	70%	30-130%
321-60-8	2-Fluorohiphenyl	78%	74%	76%	30-130%
1718-51-0	Terphenyl-d14	80%	79%	80%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSI3027-CC3022	Injection Date:	01/24/13
Lab File ID:	I81327.D	Injection Time:	09:25
Instrument ID:	GCMSI	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	337958	3.55	885056	4.52	408886	5.92	628097	7.18	383314	9.91	846644	11.31
Upper Limit [a]	675916	4.05	1770112	5.02	817772	6.42	1256194	7.68	766628	10.41	1693288	11.81
Lower Limit [b]	168979	3.05	442528	4.02	204443	5.42	314049	6.68	191657	9.41	423322	10.81
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31772-MB	332119	3.55	902477	4.52	419666	5.92	618878	7.17	391193	9.91	883033	11.31
OP31772-BS	327249	3.55	872954	4.53	411171	5.92	616895	7.18	382782	9.91	827158	11.31
OP31772-MS	333405	3.55	893598	4.52	414512	5.92	629401	7.18	386607	9.91	829250	11.31
OP31772-MSD	326625	3.55	882593	4.52	409269	5.92	613942	7.18	379082	9.91	815720	11.32
MC17750-2	308146	3.55	856420	4.52	397369	5.92	596254	7.17	378345	9.91	840920	11.31
ZZZZZZ	317067	3.55	860290	4.52	391823	5.92	593934	7.17	374022	9.91	829105	11.31
ZZZZZZ	319238	3.55	831201	4.53	396731	5.92	609954	7.17	383073	9.91	829586	11.31
ZZZZZZ	323191	3.55	885196	4.52	410680	5.92	602883	7.17	381487	9.91	843279	11.31
ZZZZZZ	306604	3.55	812544	4.52	390153	5.92	586869	7.17	374160	9.91	822183	11.31
ZZZZZZ	318197	3.55	870235	4.52	388377	5.92	571549	7.17	370869	9.91	831089	11.31
ZZZZZZ	315662	3.55	841768	4.52	396699	5.92	594629	7.17	374068	9.91	835781	11.31
ZZZZZZ	310430	3.55	846999	4.52	388085	5.92	579446	7.17	362005	9.91	800986	11.31
ZZZZZZ	307600	3.55	825873	4.52	388465	5.92	585037	7.17	372837	9.91	826286	11.31
ZZZZZZ	300472	3.55	829152	4.52	372758	5.92	550181	7.17	339038	9.91	744329	11.31
ZZZZZZ	287095	3.55	793424	4.52	364554	5.92	539316	7.17	340507	9.91	741797	11.31
MC17703-3	288493	3.55	774609	4.52	363426	5.92	551432	7.17	360998	9.91	789961	11.31

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU6I8-CC608	Injection Date:	01/24/13
Lab File ID:	U11941.D	Injection Time:	09:I9
Instrument ID:	GCMSU	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	104846	3.35	384575	4.33	231049	5.73	403749	6.99	420950	9.79	399173	11.34
Upper Limit [a]	209692	3.85	769150	4.83	462098	6.23	807498	7.49	841900	10.29	798346	11.84
Lower Limit [b]	52423	2.85	192288	3.83	115525	5.23	201875	6.49	210475	9.29	199587	10.84
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31771-MB	109127	3.35	400126	4.32	235205	5.73	404601	6.98	446942	9.78	410117	11.34
OP31771-BS	114666	3.35	417329	4.32	243625	5.73	423391	6.98	440899	9.79	399424	11.34
OP31771-MS	113543	3.35	412732	4.33	239979	5.73	411830	6.98	431890	9.79	402244	11.34
OP31771-MSD	112521	3.35	409705	4.32	238586	5.73	411708	6.98	440836	9.79	400383	11.34
MC17750-1	108316	3.35	402105	4.32	233507	5.73	414770	6.98	455144	9.78	415614	11.34
ZZZZZZ	109069	3.35	402764	4.32	234543	5.73	403494	6.98	437452	9.78	405516	11.34
ZZZZZZ	106452	3.35	394111	4.32	236084	5.73	396119	6.98	436969	9.78	404074	11.34
MC17703-3	111985	3.35	404696	4.32	241226	5.73	430693	6.98	463906	9.78	423898	11.33
ZZZZZZ	108639	3.35	398916	4.32	234235	5.73	414953	6.98	440824	9.78	409862	11.34
ZZZZZZ	136378	3.35	488420	4.32	289804	5.73	524774	6.98	591272	9.79	443959	11.34
ZZZZZZ	130679	3.35	473822	4.32	285179	5.73	502358	6.98	555103	9.79	415497	11.34

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-DI0
IS 4 = Phenantbrene-dI0
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17703-3	U11949.D	26.0	21.0	69.0	61.0	58.0	51.0
OP31771-BS	U11943.D	43.0	31.0	87.0	84.0	80.0	96.0
OP31771-MB	U11942.D	34.0	24.0	69.0	69.0	71.0	80.0
OP31771-MS	U11944.D	43.0	31.0	87.0	75.0	78.0	93.0
OP31771-MSD	U11945.D	42.0	30.0	85.0	72.0	75.0	88.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17703-3	I81343.D	29.0	23.0	72.0	61.0	59.0	48.0
OP31772-BS	I81329.D	41.0	31.0	87.0	77.0	78.0	82.0
OP31772-MB	I81328.D	35.0	27.0	71.0	67.0	72.0	73.0
OP31772-MS	I81330.D	43.0	32.0	88.0	75.0	78.0	80.0
OP31772-MSD	I81331.D	41.0	31.0	85.0	73.0	74.0	79.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

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GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-MB	BK21110.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17703-1, MC17703-3

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	95%	36-173%
460-00-4	Bromofluorobenzene (S)	96%	36-173%

8.1.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-BS	BK21111.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
OP31788-BSD	BK21112.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17703-1, MC17703-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.067	94	0.12	86	17	60-140/30
106-93-4	1,2-Dibromoethane	0.071	0.066	93	0.12	86	6	60-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	Bromofluorobenzene (S)	104%	148%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	151%	36-173%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-MS	BK21113.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
OP31788-MSD	BK21114.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
MC17722-3	BK21117.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17703-1, MC17703-3

CAS No.	Compound	MC17722-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0681	0.062	91	0.065	95	5	64-141/29
106-93-4	1,2-Dibromoethane	0.21		0.0681	0.32	162	0.36	220* [a]	12	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17722-3	Limits
460-00-4	Bromofluorobenzene (S)	94%	90%	77%	36-173%
460-00-4	Bromofluorobenzene (S)	106%	110%	97%	36-173%

(a) Outside control limits due to high level in sample relative to spike amount.

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17703-1	BK21133.D	90.0	111.0
MC17703-3	BK21134.D	86.0	111.0
OP31788-BS	BK21111.D	104.0	104.0
OP31788-BSD	BK21112.D	148.0	151.0
OP31788-MB	BK21110.D	95.0	96.0
OP31788-MS	BK21113.D	94.0	106.0
OP31788-MSD	BK21114.D	90.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBK760-ICC760	Injection Date:	01/29/13
Lab File ID:	BK21105.D	Injection Time:	10:12
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.69	4.44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31788-MB	BK21110.D	01/29/13	12:14	4.69	4.43
OP31788-BS	BK21111.D	01/29/13	12:39	4.69	4.44
OP31788-BSD	BK21112.D	01/29/13	13:03	4.69	4.43
OP31788-MS	BK21113.D	01/29/13	13:28	4.69	4.43
OP31788-MSD	BK21114.D	01/29/13	13:52	4.69	4.43
ZZZZZZ	BK21115.D	01/29/13	14:16	4.69	4.43
ZZZZZZ	BK21116.D	01/29/13	14:41	4.69	4.43
MC17722-3	BK21117.D	01/29/13	15:05	4.69	4.43
ZZZZZZ	BK21118.D	01/29/13	15:29	4.69	4.43
ZZZZZZ	BK21119.D	01/29/13	15:54	4.69	4.43

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.1

8

GC Surrogate Retention Time Summary

Job Number: MC17703
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBK760-CC760	Injection Date:	01/29/13
Lab File ID:	BK21131.D	Injection Time:	20:48
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.69	4.43

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK21132.D	01/29/13	21:13	4.69	4.43
MC17703-1	BK21133.D	01/29/13	21:38	4.69	4.43
MC17703-3	BK21134.D	01/29/13	22:02	4.69	4.43
ZZZZZZ	BK21135.D	01/29/13	22:27	4.69	4.43
ZZZZZZ	BK21136.D	01/29/13	22:52	4.69	4.43
ZZZZZZ	BK21137.D	01/29/13	23:17	4.69	4.43
GBK760-ECC760	BK21138.D	01/29/13	23:41	4.69	4.43

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.2 8

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17727

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/20/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
P58-ROX-012213	P93D-ROX-012213
TB-012213-HCL	TB-012213-ST

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. Sample P58-ROX-012213 was diluted due to high levels of VOC target analytes. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated the cooler was received by the laboratory at a temperature of 1.1ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSM1824-BS/BSD	VOCs	Acetone	**133**/129	3	70-130/25
MSM1824-BS/BSD	VOCs	Acrolein	76/**65**	16	70-130/25

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSM1824-BS/BSD	VOCs	Acrylonitrile	125/**147**	16	70-130/25
MSM1824-BS/BSD	VOCs	2-Butanone (MEK)	116/**138**	18	70-130/25
MSM1824-BS/BSD	VOCs	1,4-Dioxane	**135/133**	2	70-130/25
MSM1824-BS/BSD	VOCs	2-Hexanone	129/**132**	3	70-130/25
MSM1824-BS/BSD	VOCs	4-Methyl-2-pentanone (MIBK)	**142/144**	1	70-130/25
MSM1824-BS/BSD	VOCs	Vinyl acetate	**147/139**	6	70-130/25
OP31771-BS	SVOCs	Aniline	**37**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LCSD MSM1824-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
P58-ROX-012213	VOCs	Acrolein	**UJ**
P93D-ROX-012213	VOCs	Acrolein	**UJ**
P58-ROX-012213	SVOCs	Aniline	**UJ**
P93D-ROX-012213	SVOCs	Aniline	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

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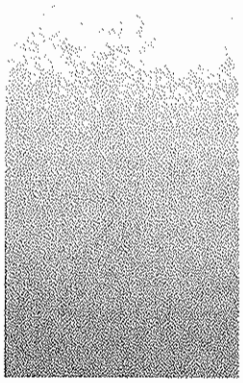
02/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17727

Sampling Date: 01/22/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **69**

Reviewed on 2/20/2013

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **7**
4.1: MC17727-1: P58-ROX-012213 8
4.2: MC17727-2: P93D-ROX-012213 15
4.3: MC17727-3: TB-012213-HCL 22
4.4: MC17727-4: TB-012213-ST 25
Section 5: Misc. Forms **26**
5.1: Chain of Custody 27
5.2: Sample Tracking Chronicle 29
5.3: Internal Chain of Custody 30
Section 6: GC/MS Volatiles - QC Data Summaries **31**
6.1: Method Blank Summary 32
6.2: Blank Spike Summary 36
6.3: Blank Spike/Blank Spike Duplicate Summary 37
6.4: Matrix Spike/Matrix Spike Duplicate Summary 40
6.5: Internal Standard Area Summaries 44
6.6: Surrogate Recovery Summaries 46
Section 7: GC/MS Semi-volatiles - QC Data Summaries **47**
7.1: Method Blank Summary 48
7.2: Blank Spike Summary 51
7.3: Matrix Spike/Matrix Spike Duplicate Summary 54
7.4: Internal Standard Area Summaries 57
7.5: Surrogate Recovery Summaries 61
Section 8: GC Volatiles - QC Data Summaries **63**
8.1: Method Blank Summary 64
8.2: Blank Spike/Blank Spike Duplicate Summary 65
8.3: Matrix Spike/Matrix Spike Duplicate Summary 66
8.4: Surrogate Recovery Summaries 67
8.5: GC Surrogate Retention Time Summaries 68

Sample Summary

Shell Oil

Job No: MC17727

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17727-1	01/22/13	11:25 LRRS	01/23/13	AQ	Ground Water	P58-ROX-012213
MC17727-2	01/22/13	13:45 LRRS	01/23/13	AQ	Ground Water	P93D-ROX-012213
MC17727-3	01/22/13	00:00 LRRS	01/23/13	AQ	Trip Blank Water	TB-012213-HCL
MC17727-4	01/22/13	00:00 LRRS	01/23/13	AQ	Trip Blank Water	TB-012213-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC17727
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	**Report Date**	2/6/2013 12:29:04 PM

2 Sample(s) and 2 Trip Blank(s) were collected on 01/22/2013 and were received at Accutest on 01/23/2013 properly preserved, at 1.1 Deg. C and intact. These Samples received an Accutest job number of MC17727. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSM1824

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17633-1MS, MC17633-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,4-Dioxane, Acetone, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements
- Blank Spike Duplicate Recovery(s) for 1,4-Dioxane, Acrolein, 2-Hexanone, 2-Butanone (MEK), Vinyl Acetate are ontside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone (MIBK), Acrylonitrile are ontside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, Acrolein, Hexachlorobutadiene, Methyl Tert Butyl Ether, Vinyl Acetate are ontside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSM1824-BS for 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.
- MSM1824-BSD for Acrylonitrile, 4-Methyl-2-pentanone (MIBK): Outside control limits. Associated samples are non-detect for this compound.

Matrix AQ **Batch ID:** MSM1825

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17746-1MS, MC17746-1MSD were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270C

Matrix AQ **Batch ID:** OP31771

- All method blanks for this batch meet method specific criteria.

Sample(s) MC17750-1MS, MC17750-1MSD were used as the QC samples indicated.

- All samples were extracted within the recommended method holding time.
- MS/MSD Recovery(s) for Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- All samples were analyzed within the recommended method holding time.
- OP31771-BS/MS/MSD for Aniline: Outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31772

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17750-2MS, MC17750-2MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31788

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17722-3MS, MC17722-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP31788-MSD for 1,2-Dibromoethane: Outside control limits due to high level in sample relative to spike amount.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17727).

Summary of Hits

Job Number: MC17727
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/22/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17727-1	P58-ROX-012213					
Benzene		552000	2500	1200	ug/l	SW846 8260B
Ethylbenzene		1270	1000	510	ug/l	SW846 8260B
Xylene (total)		728 J	1000	580	ug/l	SW846 8260B
3&4-Methylphenol		19.8	1I	1.1	ug/l	SW846 8270C
Phenol		208	27	5.5	ug/l	SW846 8270C
Dibenzofuran		3.8	2.2	1.1	ug/l	SW846 8270C
Acenaphthene		1.1	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.60	0.11	0.014	ug/l	SW846 8270C BY SIM
Benzo(a)anthracene		0.38	0.054	0.033	ug/l	SW846 8270C BY SIM
Benzo(a)pyrene		0.22	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.12	0.054	0.026	ug/l	SW846 8270C BY SIM
Benzo(g,h,i)perylene		0.12	0.11	0.041	ug/l	SW846 8270C BY SIM
Chrysene		0.39	0.11	0.079	ug/l	SW846 8270C BY SIM
Dibenzo(a,h)anthracene		0.068 J	0.11	0.045	ug/l	SW846 8270C BY SIM
Fluoranthene		0.24	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		3.0	0.11	0.050	ug/l	SW846 8270C BY SIM
Indeno(1,2,3-cd)pyrene		0.072 J	0.11	0.050	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		68.0	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		84.6	0.22	0.056	ug/l	SW846 8270C BY SIM
Phenanthrene		2.3	0.054	0.014	ug/l	SW846 8270C BY SIM
Pyrene		0.77	0.11	0.039	ug/l	SW846 8270C BY SIM
MC17727-2	P93D-ROX-012213					
Benzene		106	0.50	0.24	ng/l	SW846 8260B
Ethylbenzene		0.69 J	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		1.5 J	5.0	0.35	ug/l	SW846 8260B
1-Methylnaphthalene		0.27	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.36	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.042 J	0.053	0.013	ug/l	SW846 8270C BY SIM
MC17727-3	TB-012213-HCL					
No hits reported in this sample.						
MC17727-4	TB-012213-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P58-ROX-012213		
Lab Sample ID:	MC17727-1	**Date Sampled:**	01/22/13
Matrix:	AQ - Ground Water	**Date Received:**	01/23/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53705.D	1000	01/25/13	AMY	n/a	n/a	MSM1824
Run #2	M53729.D	5000	01/28/13	AMY	n/a	n/a	MSM1825

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5000	3000	ug/l	
107-02-8	Acrolein	ND	25000	10000	ug/l	UJ
107-13-1	Acrylonitrile	ND	5000	3200	ng/l	
71-43-2	Benzene	552000 [a]	2500	1200	ug/l	
108-86-1	Bromobenzene	ND	5000	620	ug/l	
74-97-5	Bromochloromethane	ND	5000	1300	ug/l	
75-27-4	Bromodichloromethane	ND	1000	580	ug/l	
75-25-2	Bromoform	ND	1000	780	ug/l	
74-83-9	Bromomethane	ND	2000	1000	ug/l	
78-93-3	2-Butanone (MEK)	ND	5000	2400	ug/l	
104-51-8	n-Butylbenzene	ND	5000	610	ug/l	
135-98-8	sec-Butylbenzene	ND	5000	550	ug/l	
98-06-6	tert-Butylbenzene	ND	5000	640	ug/l	
75-15-0	Carbon disnlfide	ND	5000	610	ug/l	
56-23-5	Carbon tetrachloride	ND	1000	870	ug/l	
108-90-7	Chlorobenzene	ND	1000	470	ug/l	
75-00-3	Chloroethane	ND	2000	500	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5000	1300	ug/l	
67-66-3	Chloroform	ND	1000	500	ug/l	
74-87-3	Chloromethane	ND	2000	730	ug/l	
95-49-8	o-Chlorotolnene	ND	5000	650	ug/l	
106-43-4	p-Chlorotoluene	ND	5000	480	ug/l	
124-48-1	Dibromochloromethane	ND	1000	530	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1000	930	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1000	450	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1000	640	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2000	1700	ug/l	
75-34-3	1,1-Dichloroethane	ND	1000	620	ug/l	
107-06-2	1,2-Dichloroethane	ND	1000	630	ug/l	
75-35-4	1,1-Dichloroethene	ND	1000	410	ng/l	
156-59-2	cis-1,2-Dichloroethene	ND	1000	640	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1000	950	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:	P58-ROX-012213		
Lab Sample ID:	MC17727-1	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2000	720	ug/l	
142-28-9	1,3-Dichloropropane	ND	5000	640	ug/l	
594-20-7	2,2-Dichloropropane	ND	5000	1600	ug/l	
563-58-6	1,1-Dichloropropene	ND	5000	910	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	500	450	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	500	200	ug/l	
123-91-1	1,4-Dioxane	ND	25000	15000	ug/l	
97-63-2	Ethyl methacrylate	ND	5000	810	ug/l	
100-41-4	Ethylbenzene	1270	1000	510	ug/l	
87-68-3	Hexachlorobutadiene	ND	5000	2100	ug/l	
591-78-6	2-Hexanone	ND	5000	2000	ug/l	
98-82-8	Isopropylbenzene	ND	5000	500	ug/l	
99-87-6	p-Isopropyltoluene	ND	5000	570	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1000	410	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5000	2900	ug/l	
74-95-3	Methylene bromide	ND	5000	1100	ug/l	
75-09-2	Methylene chloride	ND	2000	830	ug/l	
91-20-3	Naphthalene	ND	5000	500	ug/l	
103-65-1	n-Propylbenzene	ND	5000	580	ug/l	
100-42-5	Styrene	ND	5000	450	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5000	570	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1000	600	ug/l	
127-18-4	Tetrachloroethene	ND	1000	420	ug/l	
108-88-3	Toluene	ND	1000	510	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5000	1300	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5000	1300	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1000	850	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1000	500	ug/l	
79-01-6	Trichloroethene	ND	1000	780	ug/l	
75-69-4	Trichlorofluoromethane	ND	1000	290	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5000	850	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5000	350	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5000	470	ug/l	
108-05-4	Vinyl Acetate	ND	5000	1300	ug/l	
75-01-4	Vinyl chloride	ND	1000	630	ug/l	
	m,p-Xylene	ND	1000	730	ug/l	
95-47-6	o-Xylene	ND	1000	580	ug/l	
1330-20-7	Xylene (total)	728	1000	580	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:	P58-ROX-012213		
Lab Sample ID:	MC17727-1	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	97%	70-130%
2037-26-5	Toluene-D8	94%	100%	70-130%
460-00-4	4-Bromofluorobenzene	92%	90%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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:	P58-ROX-012213		
Lab Sample ID:	MC17727-1	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11965.D	1	01/25/13	NS	01/24/13	OP31771	MSU619
Run #2	U12059.D	5	01/31/13	NS	01/24/13	OP31771	MSU626

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.4	ug/l	
95-57-8	2-Chlorophenol	ND	5.4	0.77	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.2	ug/l	
	3&4-Methylphenol	19.8	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.58	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	208 [a]	27	5.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	U
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.79	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.72	ug/l	
100-51-6	Benzyl Alcobol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.7	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.41	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	1.6	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	1.0	ug/l	
121-14-2	2,4-Dinitrotolnene	ND	11	0.87	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.84	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.97	ug/l	
132-64-9	Dibenzofuran	3.8	2.2	1.1	ng/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.60	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	1.4	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:	P58-ROX-012213		
Lab Sample ID:	MC17727-1	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.4	0.55	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.58	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	
67-72-1	Hexachloroethane	ND	5.4	1.7	ug/l	
78-59-1	Isophorone	ND	5.4	0.54	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.94	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.4	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.54	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.54	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%	39%	15-110%
4165-62-2	Phenol-d5	34%	35%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	83%	15-110%
4165-60-0	Nitrobenzene-d5	69%	71%	30-130%
321-60-8	2-Fluorobiphenyl	65%	66%	30-130%
1718-51-0	Terphenyl-d14	64%	59%	30-130%

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

(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:	P58-ROX-012213		
Lab Sample ID:	MC17727-1	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11963.D	1	01/25/13	NS	01/24/13	OP31772	MSU620
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.1	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	0.60	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	0.38	0.054	0.033	ug/l	
50-32-8	Benzo(a)pyrene	0.22	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	0.12	0.054	0.026	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.12	0.11	0.041	ug/l	
207-08-9	Benzo(k)fluorantheue	ND	0.11	0.064	ug/l	
218-01-9	Chrysene	0.39	0.11	0.079	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.068	0.11	0.045	ug/l	J
206-44-0	Fluoranthene	0.24	0.11	0.035	ug/l	
86-73-7	Fluorene	3.0	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.072	0.11	0.050	ug/l	J
90-12-0	1-Methylnaphthalene	68.0	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	84.6	0.22	0.056	ug/l	
85-01-8	Phenanthrene	2.3	0.054	0.014	ug/l	
129-00-0	Pyrene	0.77	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	85%		15-110%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	70%		30-130%

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:	P58-ROX-012213		
Lab Sample ID:	MC17727-1	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21135.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	36.3 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	78%		36-173%
460-00-4	Bromofluorobenzene (S)	94%		36-173%

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

Report of Analysis

Client Sample ID:	P93D-ROX-012213		
Lab Sample ID:	MC17727-2	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53697.D	1	01/25/13	AMY	n/a	n/a	MSM1824
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ng/l	
71-43-2	Benzene	106	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ng/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ng/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	P93D-ROX-012213		
Lab Sample ID:	MC17727-2	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropeue	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	0.69	1.0	0.51	ug/l	J
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanune	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetracbloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ng/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1.5	5.0	0.35	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	P93D-ROX-012213		
Lab Sample ID:	MC17727-2	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P93D-ROX-012213		
Lab Sample ID:	MC17727-2	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11966.D	1	01/25/13	NS	01/24/13	OP31771	MSU619
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.75	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.59	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.70	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.82	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.95	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	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:	P93D-ROX-012213		
Lab Sample ID:	MC17727-2	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	0.22	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.92	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	29%		15-110%
4165-62-2	Phenol-d5	21%		15-110%
118-79-6	2,4,6-Tribromophenol	72%		15-110%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	77%		30-130%

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

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

Report of Analysis

Client Sample ID:	P93D-ROX-012213		
Lab Sample ID:	MC17727-2	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U11964.D	1	01/25/13	NS	01/24/13	OP31772	MSU620
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ug/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	0.27	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.36	0.21	0.055	ug/l	
85-01-8	Phenanthrene	0.042	0.053	0.013	ug/l	J
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	31%		15-110%
4165-62-2	Phenol-d5	23%		15-110%
118-79-6	2,4,6-Tribromophenol	70%		15-110%
4165-60-0	Nitrobenzene-d5	67%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	85%		30-130%

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:	P93D-ROX-012213		
Lab Sample ID:	MC17727-2	Date Sampled:	01/22/13
Matrix:	AQ - Ground Water	Date Received:	01/23/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21136.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	36.4 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	88%		36-173%
460-00-4	Bromofluorobenzene (S)	112%		36-173%

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

Report of Analysis

Client Sample ID:	TB-012213-HCL		
Lab Sample ID:	MC17727-3	Date Sampled:	01/22/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53692.D	1	01/25/13	AMY	n/a	n/a	MSM1824
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-012213-HCL		
Lab Sample ID:	MC17727-3	Date Sampled:	01/22/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-012213-HCL		
Lab Sample ID:	MC17727-3	Date Sampled:	01/22/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/23/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-012213-ST		
Lab Sample ID:	MC17727-4	**Date Sampled:**	01/22/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/23/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK21137.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
Run #2							

	Initial Volume	Final Volume
Run #1	35.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	82%		36-173%
460-00-4	Bromofluorobenzene (S)	105%		36-173%

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

New England ACCUTEST LABORATORIES

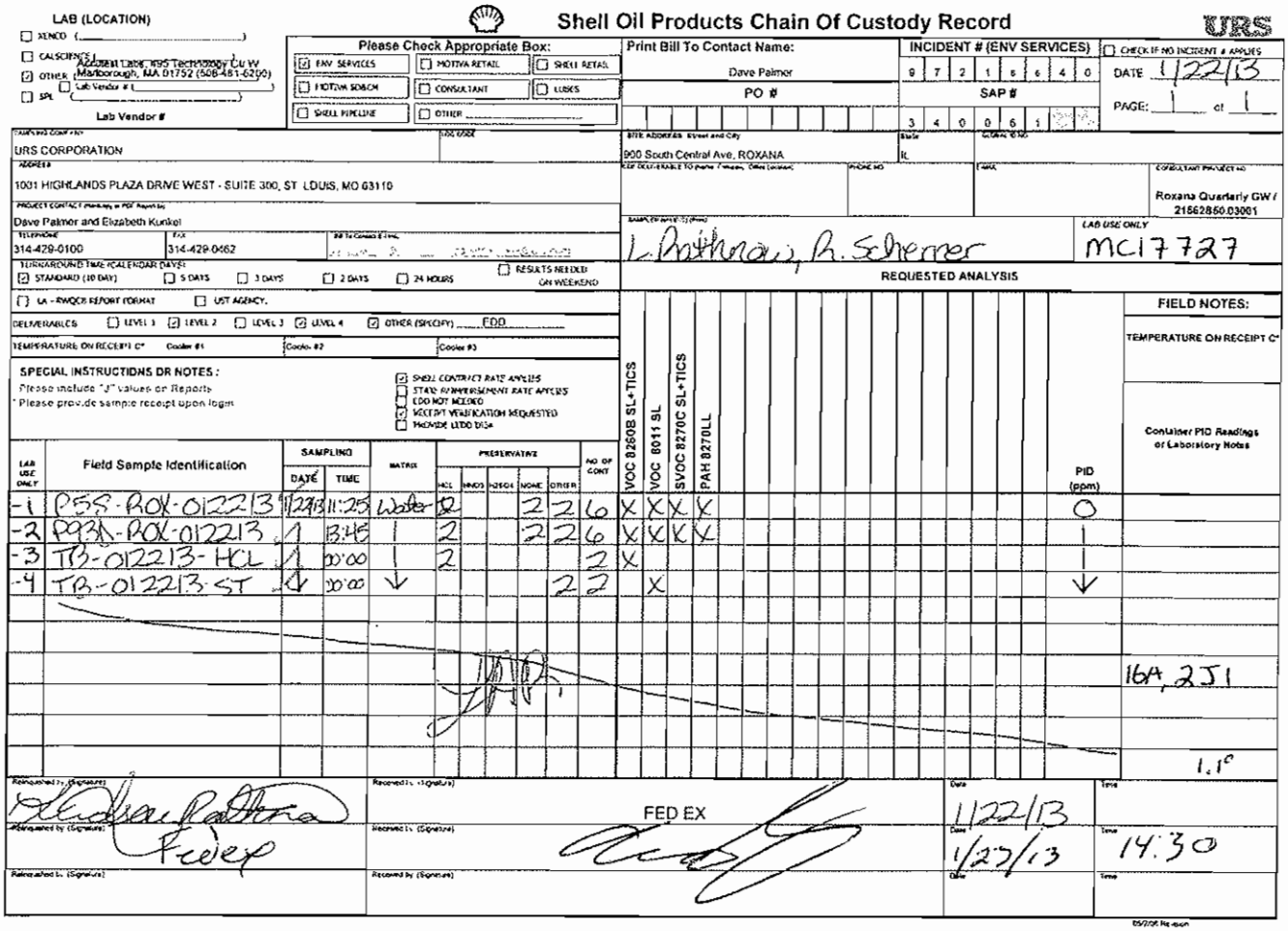
Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE
☐ OTHER Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6290)
☐ SPL
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SC&DM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 5 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE 1/22/13
PAGE: 1 of 1

COMPANY NAME: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110
PROJECT CONTACT: Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462
SITE ADDRESS: 900 South Central Ave, ROXANA IL
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562850.03001
SAMPLER(S): L. Pothoven, R. Scherrer
LAB USE ONLY: MC17727

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
Please include "J" values on Reports
Please provide sample receipt upon login
☑ SHELL CONTRACT RATE APPLIES
☐ STATE AGREEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PREMIUM EDD DATA

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	P55-ROX-012213	1/22/13	11:25	Water	2			2	2	6	X	X	X	X	0	
-2	P93L-ROX-012213	1	13:45	1	2			2	2	6	X	X	X	X	1	
-3	TB-012213-HCL	1	00:00	1	2					2	X				1	
-4	TB-012213-ST	↓	00:00	↓					2	2		X			↓	
																16A, 2J1
																1.1°

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature) — Fedex
Received by: (Signature) — FED EX
Date: 1/22/13
Time:
Relinquished by: (Signature)
Received by: (Signature)
Date: 1/23/13
Time: 14:30
Relinquished by: (Signature)
Received by: (Signature)
Date:
Time:

05/2006 Revision

5.1

MC17727: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17727 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/23/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SOUTH CENTRAL AVE No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentetion	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V 508.481.6200
495 Technology Center West, Bldg One
F 508.481.7753
Marlborough, MA
www.accutest.com

5.1

5

MC17727: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17727

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17727-1 Collected: 22-JAN-13 11:25 By: LRRS Received: 23-JAN-13 By: P58-ROX-012213						
MC17727-1	SW846 8270C BY SIM	25-JAN-13 09:52	NS	24-JAN-13	PA	B8270SIMSL
MC17727-1	SW846 8270C	25-JAN-13 10:36	NS	24-JAN-13	PA	AB8270SL+
MC17727-1	SW846 8260B	25-JAN-13 17:40	AMY			V8260SL+
MC17727-1	SW846 8260B	28-JAN-13 15:01	AMY			V8260SL+
MC17727-1	SW846 8011	29-JAN-13 22:27	NK	24-JAN-13	BJ	V8011SL
MC17727-1	SW846 8270C	31-JAN-13 12:05	NS	24-JAN-13	PA	AB8270SL+
MC17727-2 Collected: 22-JAN-13 13:45 By: LRRS Received: 23-JAN-13 By: P93D-ROX-012213						
MC17727-2	SW846 8270C BY SIM	25-JAN-13 10:14	NS	24-JAN-13	PA	B8270SIMSL
MC17727-2	SW846 8270C	25-JAN-13 10:58	NS	24-JAN-13	PA	AB8270SL+
MC17727-2	SW846 8260B	25-JAN-13 13:58	AMY			V8260SL+
MC17727-2	SW846 8011	29-JAN-13 22:52	NK	24-JAN-13	BJ	V8011SL
MC17727-3 Collected: 22-JAN-13 00:00 By: LRRS Received: 23-JAN-13 By: TB-012213-HCL						
MC17727-3	SW846 8260B	25-JAN-13 11:39	AMY			V8260SL+
MC17727-4 Collected: 22-JAN-13 00:00 By: LRRS Received: 23-JAN-13 By: TB-012213-ST						
MC17727-4	SW846 8011	29-JAN-13 23:17	NK	24-JAN-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/23/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17727-1.2	Walk In Ref #22	Michael Rolo	01/24/13 08:09	Retrieve from Storage
MC17727-1.2	Michael Rolo		01/25/13 07:10	Depleted
MC17727-1.3	VOC Ref #2	Amy Min Yang	01/28/13 09:55	Retrieve from Storage
MC17727-1.3	Amy Min Yang	GCMSM	01/28/13 09:55	Load on Instrument
MC17727-1.3	GCMSM	Amy Miu Yang	01/29/13 13:15	Unload from Instrnment
MC17727-1.3	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17727-1.4	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17727-1.4	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17727-1.4	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17727-1.4	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Retnrn to Storage
MC17727-1.5	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17727-1.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17727-2.1	Walk In Ref #22	Michael Rolo	01/24/13 08:09	Retrieve from Storage
MC17727-2.1	Michael Rolo		01/25/13 07:10	Depleted
MC17727-2.3	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17727-2.3	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17727-2.3	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17727-2.3	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17727-2.6	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17727-2.6	Bijan Jafari		02/02/13 13:41	Depleted
MC17727-3.2	VOC Ref #2	Amy Min Yang	01/25/13 10:25	Retrieve from Storage
MC17727-3.2	Amy Min Yang	GCMSM	01/25/13 10:25	Load on Instrument
MC17727-3.2	GCMSM	Amy Min Yang	01/28/13 08:46	Unload from Instrument
MC17727-3.2	Amy Min Yang	VOC Ref #2	01/28/13 08:46	Return to Storage
MC17727-4.2	VOC Ref #2	Bijan Jafari	01/24/13 14:18	Retrieve from Storage
MC17727-4.2	Bijan Jafari		02/02/13 13:41	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ng/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ng/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ng/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ng/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ng/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ng/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ng/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-MB	M53689.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-MB	M53719.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.24	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-BS	M53717.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	49.3	99	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	66.3	133* a	64.3	129	3	70-130/25
107-02-8	Acrolein	250	190	76	162	65* a	16	70-130/25
107-13-1	Acrylonitrile	50	62.3	125	73.4	147* b	16	70-130/25
71-43-2	Benzene	50	51.2	102	51.3	103	0	70-130/25
108-86-1	Bromobenzene	50	45.7	91	45.3	91	1	70-130/25
74-97-5	Bromochloromethane	50	59.7	119	60.4	121	1	70-130/25
75-27-4	Bromodichloromethane	50	51.7	103	51.8	104	0	70-130/25
75-25-2	Bromoform	50	43.3	87	49.8	100	14	70-130/25
74-83-9	Bromomethane	50	57.0	114	51.7	103	10	70-130/25
78-93-3	2-Butanone (MEK)	50	57.8	116	68.9	138* a	18	70-130/25
104-51-8	n-Butylbenzene	50	42.5	85	45.7	91	7	70-130/25
135-98-8	sec-Butylbenzene	50	52.3	105	51.0	102	3	70-130/25
98-06-6	tert-Butylbenzene	50	51.7	103	49.5	99	4	70-130/25
75-15-0	Carbon disulfide	50	56.0	112	54.3	109	3	70-130/25
56-23-5	Carbon tetrachloride	50	51.6	103	52.1	104	1	70-130/25
108-90-7	Chlorobenzene	50	50.1	100	53.9	108	7	70-130/25
75-00-3	Chloroethane	50	58.9	118	49.3	99	18	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	39.7	79	40.4	81	2	70-130/25
67-66-3	Chloroform	50	59.7	119	60.6	121	1	70-130/25
74-87-3	Chloromethane	50	57.1	114	51.3	103	11	70-130/25
95-49-8	o-Chlorotoluene	50	52.4	105	47.0	94	11	70-130/25
106-43-4	p-Chlorotoluene	50	51.9	104	47.0	94	10	70-130/25
124-48-1	Dibromochloromethaue	50	44.7	89	50.1	100	11	70-130/25
95-50-1	1,2-Dichlorobenzene	50	46.4	93	50.3	101	8	70-130/25
541-73-1	1,3-Dichlorobenzene	50	47.9	96	47.8	96	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	42.1	84	43.0	86	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	43.3	87	44.7	89	3	70-130/25
75-34-3	1,1-Dichloroethane	50	58.1	116	58.7	117	1	70-130/25
107-06-2	1,2-Dichloroethane	50	58.5	117	57.7	115	1	70-130/25
75-35-4	1,1-Dichloroethene	50	59.6	119	58.6	117	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	53.7	107	57.2	114	6	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	56.0	112	55.1	110	2	70-130/25
78-87-5	1,2-Dichloropropane	50	54.0	108	53.7	107	1	70-130/25
142-28-9	1,3-Dichloropropane	50	47.9	96	51.2	102	7	70-130/25
594-20-7	2,2-Dichloropropane	50	64.5	129	64.3	129	0	70-130/25
563-58-6	1,1-Dichloropropene	50	57.8	116	57.9	116	0	70-130/25

* = Outside of Control Limits.

6.3.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	56.0	112	55.8	112	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	61.8	124	60.7	121	2	70-130/25
123-91-1	1,4-Dioxane	250	338	135* a	332	133* a	2	70-130/25
97-63-2	Ethyl methacrylate	50	64.6	129	61.7	123	5	77-137/25
100-41-4	Ethylbenzene	50	47.0	94	48.8	98	4	70-130/25
87-68-3	Hexachlorobutadiene	50	39.2	78	42.6	85	8	70-130/25
591-78-6	2-Hexanone	50	64.3	129	66.1	132* a	3	70-130/25
98-82-8	Isopropylbenzene	50	57.1	114	54.7	109	4	70-130/25
99-87-6	p-Isopropyltoluene	50	47.2	94	47.8	96	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	60.1	120	59.9	120	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	71.1	142* b	72.1	144* b	1	70-130/25
74-95-3	Methyleue bromide	50	54.5	109	54.2	108	1	70-130/25
75-09-2	Methylene chloride	50	55.2	110	56.7	113	3	70-130/25
91-20-3	Naphthalene	50	51.2	102	57.1	114	11	70-130/25
103-65-1	n-Propylbenzene	50	55.0	110	49.8	100	10	70-130/25
100-42-5	Styrene	50	48.0	96	51.4	103	7	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	44.8	90	47.8	96	6	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	46.0	92	42.8	86	7	70-130/25
127-18-4	Tetrachloroethene	50	44.1	88	50.9	102	14	70-130/25
108-88-3	Toluene	50	55.9	112	54.8	110	2	70-130/25
87-61-6	1,2,3-Trichlorohenzene	50	46.3	93	47.7	95	3	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	44.6	89	48.0	96	7	70-130/25
71-55-6	1,1,1-Trichloroethane	50	58.8	118	60.5	121	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.4	103	51.5	103	0	70-130/25
79-01-6	Trichloroethene	50	50.4	101	50.5	101	0	70-130/25
75-69-4	Trichlorofluoromethane	50	60.5	121	54.3	109	11	70-130/25
96-18-4	1,2,3-Trichloropropane	50	51.0	102	46.9	94	8	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	47.5	95	46.1	92	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	49.7	99	46.2	92	7	70-130/25
108-05-4	Vinyl Acetate	50	73.4	147* a	69.3	139* a	6	70-130/25
75-01-4	Vinyl chloride	50	58.5	117	52.5	105	11	70-130/25
	m,p-Xylene	100	103	103	109	109	6	70-130/25
95-47-6	o-Xylene	50	52.9	106	57.1	114	8	70-130/25
1330-20-7	Xylene (total)	150	155	103	166	111	7	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1824-BS	M53686.D	1	01/25/13	AMY	n/a	n/a	MSM1824
MSM1824-BSD	M53687.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	97%	70-130%
2037-26-5	Toluene-D8	97%	96%	70-130%
460-00-4	4-Bromofluorobenzene	102%	93%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	224	90	216	86	4	70-130/30
107-02-8	Acrolein	ND		1250	1600	128	1660	133* [a]	4	70-130/30
107-13-1	Acrylonitrile	ND		250	338	135* [a]	314	126	7	70-130/30
71-43-2	Benzene	ND		250	239	96	218	87	9	70-130/30
108-86-1	Bromobenzene	ND		250	216	86	207	83	4	70-130/30
74-97-5	Bromochloromethane	ND		250	277	111	284	114	2	70-130/30
75-27-4	Bromodichloromethane	ND		250	244	98	259	104	6	70-130/30
75-25-2	Bromoform	ND		250	229	92	191	76	18	70-130/30
74-83-9	Bromomethane	ND		250	246	98	236	94	4	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	277	111	344	138* [a]	22	70-130/30
104-51-8	n-Butylbenzene	ND		250	222	89	224	90	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	243	97	249	100	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	253	101	257	103	2	70-130/30
75-15-0	Carbon disulfide	ND		250	288	115	279	112	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	247	99	219	88	12	70-130/30
108-90-7	Chlorobenzene	ND		250	253	101	219	88	14	70-130/30
75-00-3	Chloroethane	ND		250	231	92	230	92	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		250	256	102	261	104	2	70-130/30
74-87-3	Chloromethane	ND		250	237	95	239	96	1	70-130/30
95-49-8	o-Chlorotoluene	ND		250	251	100	243	97	3	70-130/30
106-43-4	p-Chlorotoluene	ND		250	254	102	249	100	2	70-130/30
124-48-1	Dibromochloromethane	ND		250	231	92	198	79	15	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	230	92	223	89	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	228	91	219	88	4	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	207	83	205	82	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	214	86	201	80	6	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	261	104	314	126	18	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	270	108	236	94	13	70-130/30
75-35-4	1,1-Dicbloroethene	ND		250	290	116	278	111	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	250	100	278	111	11	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	280	112	278	111	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	246	98	250	100	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	228	91	207	83	10	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	263	105	256	102	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	288	115	235	94	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Compound	MC17633-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	271	108	271	108	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	263	105	304	122	14	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1230	98	1270	102	3	70-130/30
97-63-2	Ethyl methacrylate	ND		250	286	114	320	128	11	72-139/30
100-41-4	Ethylbenzene	ND		250	225	90	216	86	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	180	72	173	69* [a]	4	70-130/30
591-78-6	2-Hexanone	ND		250	274	110	255	102	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	274	110	264	106	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	236	94	237	95	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	16.6		250	316	120	348	133* [a]	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	338	135* [a]	324	130	4	70-130/30
74-95-3	Methylene bromide	ND		250	246	98	261	104	6	70-130/30
75-09-2	Methylene chloride	ND		250	287	115	278	111	3	70-130/30
91-20-3	Naphthalene	ND		250	244	98	231	92	5	70-130/30
103-65-1	n-Propylbenzene	ND		250	264	106	254	102	4	70-130/30
100-42-5	Styrene	ND		250	258	103	211	84	20	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	225	90	203	81	10	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	222	89	231	92	4	70-130/30
127-18-4	Tetrachloroethene	ND		250	235	94	188	75	22	70-130/30
108-88-3	Toluene	ND		250	261	104	277	111	6	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	212	85	198	79	7	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	211	84	196	78	7	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	267	107	234	94	13	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	224	90	255	102	13	70-130/30
79-01-6	Trichloroethene	ND		250	229	92	226	90	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	295	118	284	114	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	221	88	250	100	12	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	224	90	225	90	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	232	93	228	91	2	70-130/30
108-05-4	Vinyl Acetate	ND		250	305	122	398	159* [a]	26	70-130/30
75-01-4	Vinyl chloride	ND		250	237	95	228	91	4	70-130/30
	m,p-Xylene	ND		500	554	111	455	91	20	70-130/30
95-47-6	o-Xylene	ND		250	289	116	238	95	19	70-130/30
1330-20-7	Xylene (total)	ND		750	844	113	693	92	20	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17633-1MS	M53700.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1MSD	M53701.D	5	01/25/13	AMY	n/a	n/a	MSM1824
MC17633-1	M53694.D	1	01/25/13	AMY	n/a	n/a	MSM1824

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1, MC17727-2, MC17727-3

CAS No.	Surrogate Recoveries	MS	MSD	MC17633-1	Limits
1868-53-7	Dibromofluoromethane	89%	92%	97%	70-130%
2037-26-5	Toluene-D8	88%	101%	97%	70-130%
460-00-4	4-Bromofluorobenzene	104%	105%	95%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17746-1MS	M53726.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1MSD	M53727.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1	M53720.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17727-1

CAS No.	Compound	MC17746-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	252	101	252	101	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC17746-1	Limits
1868-53-7	Dibromofluoromethane	92%	91%	102%	70-130%
2037-26-5	Toluene-D8	86%	86%	97%	70-130%
460-00-4	4-Bromofluorobenzene	93%	90%	100%	70-130%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1824-CC1739	Injection Date:	01/25/13
Lab File ID:	M53685.D	Injection Time:	08:24
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	118871	9.36	178351	10.24	112741	13.52	130740	16.08	53575	6.86
Upper Limit [a]	237742	9.86	356702	10.74	225482	14.02	261480	16.58	107150	7.36
Lower Limit [b]	59436	8.86	89176	9.74	56371	13.02	65370	15.58	26788	6.36
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1824-BS	118062	9.36	190648	10.24	111020	13.52	128658	16.08	51434	6.86
MSM1824-BSD	119560	9.36	193762	10.24	96893	13.52	125158	16.08	52118	6.86
MSM1824-MB	115975	9.36	186664	10.24	103939	13.52	131964	16.08	58412	6.86
ZZZZZZ	116646	9.36	172128	10.24	101349	13.52	123828	16.08	51786	6.86
ZZZZZZ	112742	9.36	174545	10.24	95190	13.52	125698	16.08	47384	6.85
MC17727-3	114600	9.36	169983	10.24	93037	13.52	126988	16.08	53646	6.86
ZZZZZZ	114835	9.36	185155	10.24	94153	13.52	127887	16.08	45275	6.86
MC17633-1	117426	9.36	186014	10.24	103252	13.52	126712	16.08	53764	6.86
ZZZZZZ	114806	9.36	174081	10.24	93255	13.52	120597	16.08	46164	6.85
ZZZZZZ	109667	9.36	183993	10.24	107074	13.52	118881	16.08	51825	6.85
MC17727-2	113470	9.36	186502	10.24	104750	13.52	120533	16.08	48736	6.86
ZZZZZZ	112877	9.35	183673	10.24	107392	13.52	128533	16.08	53051	6.86
ZZZZZZ	115881	9.36	177418	10.24	88232	13.52	130887	16.08	55870	6.86
MC17633-1MS	116950	9.36	192627	10.24	100432	13.52	134327	16.08	47407	6.85
MC17633-1MSD	117246	9.36	183464	10.24	119111	13.52	133610	16.08	47429	6.86
ZZZZZZ	122438	9.36	186640	10.24	110665	13.52	130826	16.08	59991	6.85
MC17727-1	120356	9.36	186580	10.24	89622	13.52	124272	16.08	54855	6.86
ZZZZZZ	117525	9.36	188551	10.24	95883	13.52	132247	16.08	53865	6.85

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Internal Standard Area Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1825-CC1739	Injection Date:	01/28/13
Lab File ID:	M53715.D	Injection Time:	08:31
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	115098	9.36	179840	10.24	116584	13.52	133195	16.08	47366	6.86
Upper Limit [a]	230196	9.86	359680	10.74	233168	14.02	266390	16.58	94732	7.36
Lower Limit [b]	57549	8.86	89920	9.74	58292	13.02	66598	15.58	23683	6.36
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1825-BS	117635	9.36	184384	10.24	101551	13.52	131472	16.08	47466	6.87
MSM1825-MB	114045	9.36	179312	10.24	99581	13.52	135297	16.08	45263	6.85
MC17746-1	111422	9.36	185026	10.24	94743	13.52	121530	16.08	44402	6.86
ZZZZZZ	113924	9.36	183768	10.24	109357	13.52	128235	16.08	43651	6.86
ZZZZZZ	111089	9.36	169466	10.24	107190	13.52	125936	16.08	44461	6.85
ZZZZZZ	112201	9.36	183438	10.24	96013	13.51	124719	16.08	44490	6.86
ZZZZZZ	109472	9.36	163590	10.24	87644	13.52	122459	16.08	41264	6.86
ZZZZZZ	111457	9.36	180551	10.24	99226	13.52	126939	16.08	45287	6.85
MC17746-1MS	112646	9.36	178334	10.24	95322	13.51	125407	16.08	42820	6.86
MC17746-1MSD	110952	9.36	181356	10.24	99870	13.52	122918	16.08	42097	6.85
ZZZZZZ	108071	9.36	173299	10.24	112193	13.52	125841	16.08	48134	6.86
MC17727-1	115943	9.36	164986	10.24	90552	13.52	125616	16.08	43138	6.85
ZZZZZZ	113062	9.36	181150	10.24	85798	13.52	128184	16.08	47905	6.86
ZZZZZZ	114760	9.36	167738	10.24	93766	13.52	121562	16.08	52399	6.86
ZZZZZZ	116110	9.36	185695	10.24	89490	13.52	128151	16.08	48574	6.87
ZZZZZZ	109529	9.36	181328	10.24	92391	13.52	126155	16.08	48060	6.86
ZZZZZZ	112158	9.36	177985	10.24	93105	13.52	130325	16.08	44918	6.85
ZZZZZZ	113453	9.36	184403	10.24	103710	13.52	128077	16.08	47252	6.86
ZZZZZZ	112347	9.36	178065	10.24	102740	13.52	129022	16.08	47413	6.86
ZZZZZZ	107125	9.36	185385	10.24	110790	13.52	131635	16.08	53459	6.86
ZZZZZZ	115698	9.36	181913	10.24	96864	13.52	128514	16.08	50072	6.86

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17727-1	M53729.D	97.0	100.0	90.0
MC17727-1	M53705.D	96.0	94.0	92.0
MC17727-2	M53697.D	94.0	92.0	90.0
MC17727-3	M53692.D	96.0	99.0	94.0
MC17633-1MS	M53700.D	89.0	88.0	104.0
MC17633-1MSD	M53701.D	92.0	101.0	105.0
MC17746-1MS	M53726.D	92.0	86.0	93.0
MC17746-1MSD	M53727.D	91.0	86.0	90.0
MSM1824-BS	M53686.D	98.0	97.0	102.0
MSM1824-BSD	M53687.D	97.0	96.0	93.0
MSM1824-MB	M53689.D	99.0	95.0	98.0
MSM1825-BS	M53717.D	98.0	105.0	94.0
MSM1825-MB	M53719.D	94.0	95.0	101.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Iuternal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MB	U11942.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17727-1, MC17727-2

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylpheuol	ND	10	1.0	ug/l	
88-75-5	2-Nitropheuol	ND	10	0.54	ng/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Beuzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorohenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MB	U11942.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17727-1, MC17727-2

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	34%	15-110%
4165-62-2	Phenol-d5	24%	15-110%
118-79-6	2,4,6-Tribromophenol	69%	15-110%
4165-60-0	Nitrobenzene-d5	69%	30-130%
321-60-8	2-Fluorobiphenyl	71%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

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

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31772-MB	I81328.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17727-1, MC17727-2

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	35%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	71%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	72%	30-130%
1718-51-0	Terphenyl-d14	73%	30-130%

Blank Spike Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-BS	U11943.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17727-1, MC17727-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	39.3	39	30-130
95-57-8	2-Chlorophenol	100	69.6	70	30-130
59-50-7	4-Chloro-3-methyl phenol	100	77.8	78	30-130
120-83-2	2,4-Dichlorophenol	100	82.2	82	30-130
105-67-9	2,4-Dimethylphenol	100	56.2	56	30-130
51-28-5	2,4-Dinitrophenol	100	112	112	30-130
534-52-1	4,6-Dinitro-o-cresol	100	111	111	30-130
95-48-7	2-Methylphenol	100	60.2	60	30-130
	3&4-Methylphenol	200	108	54	30-130
88-75-5	2-Nitrophenol	100	88.9	89	30-130
100-02-7	4-Nitrophenol	100	43.0	43	30-130
87-86-5	Pentachlorophenol	100	100	100	30-130
108-95-2	Phenol	100	31.3	31	30-130
95-95-4	2,4,5-Trichlorophenol	100	88.3	88	30-130
88-06-2	2,4,6-Trichlorophenol	100	92.9	93	30-130
62-53-3	Aniline	50	18.6	37* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	43.7	87	40-140
85-68-7	Butyl henzyl phthalate	50	40.6	81	40-140
100-51-6	Benzyl Alcohol	50	34.3	69	40-140
91-58-7	2-Chloronaphthalene	50	40.9	82	40-140
106-47-8	4-Chloroaniline	50	24.0	48	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	36.2	72	40-140
111-44-4	bis(2-Chloroethyl)ether	50	61.3	123	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	41.7	83	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	45.2	90	40-140
122-66-7	1,2-Diphenylhydrazine	50	37.7	75	40-140
121-14-2	2,4-Dinitrotoluene	50	50.6	101	40-140
606-20-2	2,6-Dinitrotolnene	50	44.4	89	40-140
91-94-1	3,3'-Dichlorobenzidine	50	28.9	58	40-140
132-64-9	Dibenzofuran	50	40.9	82	40-140
84-74-2	Di-n-butyl phthalate	50	41.5	83	40-140
117-84-0	Di-n-octyl phthalate	50	42.5	85	40-140
84-66-2	Diethyl phthalate	50	42.4	85	40-140
131-11-3	Dimethyl phthalate	50	28.9	58	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	43.1	86	40-140
118-74-1	Hexachlorobenzene	50	47.9	96	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-BS	U11943.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17727-1, MC17727-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	21.9	44	40-140
67-72-1	Hexachloroethane	50	30.7	61	40-140
78-59-1	Isophorone	50	41.0	82	40-140
88-74-4	2-Nitroaniline	50	45.5	91	40-140
99-09-2	3-Nitroaniline	50	30.2	60	40-140
100-01-6	4-Nitroaniline	50	40.7	81	40-140
98-95-3	Nitrobenzene	50	38.4	77	40-140
62-75-9	n-Nitrosodimethylamine	50	24.2	48	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	39.0	78	40-140
86-30-6	N-Nitrosodiphenylamine	50	43.0	86	40-140
110-86-1	Pyridine	50	20.1	40	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	43%	15-110%
4165-62-2	Phenol-d5	31%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	15-110%
4165-60-0	Nitrobenzene-d5	84%	30-130%
321-60-8	2-Fluorobiphenyl	80%	30-130%
1718-51-0	Terphenyl-d14	96%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31772-BS	I81329.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17727-1, MC17727-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	41.9	84	40-140
208-96-8	Acenaphthylene	50	29.3	59	40-140
120-12-7	Anthracene	50	42.2	84	40-140
56-55-3	Benzo(a)anthracene	50	43.3	87	40-140
50-32-8	Benzo(a)pyrene	50	41.1	82	40-140
205-99-2	Benzo(b)fluoranthene	50	44.2	88	40-140
191-24-2	Benzo(g,h,i)perylene	50	46.9	94	40-140
207-08-9	Benzo(k)fluoranthene	50	42.7	85	40-140
218-01-9	Chrysene	50	43.8	88	40-140
53-70-3	Dibenzo(a,h)anthracene	50	44.3	89	40-140
206-44-0	Fluoranthene	50	43.2	86	40-140
86-73-7	Fluorene	50	42.7	85	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	44.0	88	40-140
90-12-0	1-Methylnaphthalene	50	37.0	74	40-140
91-57-6	2-Methylnaphthalene	50	35.5	71	40-140
85-01-8	Phenanthrene	50	43.9	88	40-140
129-00-0	Pyrene	50	43.9	88	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	41%	15-110%
4165-62-2	Phenol-d5	31%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	15-110%
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	82%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MS	U11944.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
OP31771-MSD	U11945.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
MC17750-1	U11946.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17727-1, MC17727-2

CAS No.	Compound	MC17750-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	42.8	43	42.2	42	1	30-130/20
95-57-8	2-Chlorophenol	ND		100	69.1	69	65.8	66	5	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	77.2	77	72.9	73	6	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	80.3	80	77.8	78	3	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	54.0	54	53.4	53	1	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	123	123	125	125	2	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	120	120	118	118	2	30-130/20
95-48-7	2-Methylphenol	ND		100	59.9	60	57.1	57	5	30-130/20
	3&4-Methylphenol	ND		200	107	54	105	53	2	30-130/20
88-75-5	2-Nitrophenol	ND		100	89.1	89	84.2	84	6	30-130/20
100-02-7	4-Nitrophenol	ND		100	41.6	42	41.9	42	1	30-130/20
87-86-5	Pentachlorophenol	ND		100	100	100	100	100	0	30-130/20
108-95-2	Phenol	ND		100	31.2	31	30.3	30	3	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	86.7	87	84.6	85	2	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	91.8	92	88.4	88	4	30-130/20
62-53-3	Aniline	ND		50	17.7	35* [a]	17.4	35* [a]	2	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	43.4	87	41.2	82	5	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	40.9	82	37.1	74	10	40-140/20
100-51-6	Benzyl Alcohol	ND		50	33.5	67	32.4	65	3	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	39.4	79	38.2	76	3	40-140/20
106-47-8	4-Chloroaniline	ND		50	22.9	46	25.4	51	10	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	34.8	70	33.5	67	4	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	59.6	119	58.1	116	3	40-140/20
108-60-1	his(2-Chloroisopropyl)ether	ND		50	40.3	81	38.4	77	5	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	44.0	88	42.2	84	4	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	37.6	75	35.9	72	5	40-140/20
121-14-2	2,4-Dinitrotolnene	ND		50	48.7	97	47.8	96	2	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	42.1	84	41.3	83	2	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	28.9	58	30.6	61	6	40-140/20
132-64-9	Dibenzofuran	ND		50	39.0	78	37.9	76	3	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	40.7	81	38.3	77	6	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	41.7	83	37.3	75	11	40-140/20
84-66-2	Diethyl phthalate	ND		50	41.1	82	38.8	78	6	40-140/20
131-11-3	Dimethyl phthalate	ND		50	28.8	58	28.8	58	0	40-140/20
117-81-7	his(2-Ethylhexyl)phthalate	ND		50	43.2	86	38.7	77	11	40-140/20
118-74-1	Hexachlorobenzene	ND		50	47.4	95	42.8	86	10	40-140/20

* = Ontside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31771-MS	U11944.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
OP31771-MSD	U11945.D	1	01/24/13	NS	01/23/13	OP31771	MSU618
MC17750-1	U11946.D	1	01/24/13	NS	01/23/13	OP31771	MSU618

The QC reported here applies to the following samples: Method: SW846 8270C

MC17727-1, MC17727-2

CAS No.	Compound	MC17750-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	21.0	42	19.8	40	6	40-140/20
67-72-1	Hexachloroethane	ND		50	28.4	57	28.9	58	2	40-140/20
78-59-1	Isophorone	ND		50	39.7	79	38.0	76	4	40-140/20
88-74-4	2-Nitroaniline	ND		50	43.3	87	42.5	85	2	40-140/20
99-09-2	3-Nitroaniline	ND		50	28.0	56	29.4	59	5	40-140/20
100-01-6	4-Nitroaniline	ND		50	38.6	77	38.2	76	1	40-140/20
98-95-3	Nitrobenzene	ND		50	37.1	74	35.6	71	4	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	24.1	48	23.3	47	3	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	37.4	75	36.9	74	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	41.7	83	40.9	82	2	40-140/20
110-86-1	Pyridine	ND		50	19.6	39* b	19.6	39* b	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17750-1	Limits
367-12-4	2-Fluorophenol	43%	42%	36%	15-110%
4165-62-2	Phenol-d5	31%	30%	27%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	85%	73%	15-110%
4165-60-0	Nitrobenzene-d5	75%	72%	72%	30-130%
321-60-8	2-Fluorobiphenyl	78%	75%	74%	30-130%
1718-51-0	Terphenyl-d14	93%	88%	86%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(h) Ontside control limits dne to possible matrix interference. Refer to Blank Spike.

* = Ontside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLW1C Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31772-MS	I81330.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027
OP31772-MSD	I81331.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027
MC17750-2	I81332.D	1	01/24/13	NS	01/23/13	OP31772	MSI3027

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17727-1, MC17727-2

CAS No.	Compound	MC17750-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	41.2	82	39.3	79	5	40-140/20
208-96-8	Acenaphthylene	ND		50	28.7	57	27.2	54	5	40-140/20
120-12-7	Anthracene	ND		50	40.2	80	39.4	79	2	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	42.0	84	38.8	78	8	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	39.9	80	37.0	74	8	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	42.9	86	38.1	76	12	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	44.6	89	41.4	83	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	40.8	82	39.7	79	3	40-140/20
218-01-9	Chrysene	ND		50	42.6	85	39.8	80	7	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	42.1	84	39.1	78	7	40-140/20
206-44-0	Fluoranthene	ND		50	42.0	84	39.8	80	5	40-140/20
86-73-7	Fluorene	ND		50	41.8	84	40.5	81	3	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	41.8	84	39.0	78	7	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	35.9	72	34.5	69	4	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	33.9	68	32.7	65	4	40-140/20
85-01-8	Phenanthrene	ND		50	42.6	85	40.6	81	5	40-140/20
129-00-0	Pyrene	ND		50	41.9	84	39.8	80	5	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17750-2	Limits
367-12-4	2-Fluorophenol	43%	41%	37%	15-110%
4165-62-2	Phenol-d5	32%	31%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	88%	85%	75%	15-110%
4165-60-0	Nitrobenzene-d5	75%	73%	70%	30-130%
321-60-8	2-Fluorobiphenyl	78%	74%	76%	30-130%
1718-51-0	Terphenyl-d14	80%	79%	80%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSI3027-CC3022	Injection Date:	01/24/13
Lab File ID:	I81327.D	Injection Time:	09:25
Instrument ID:	GCMSI	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	337958	3.55	885056	4.52	408886	5.92	628097	7.18	383314	9.91	846644	11.31
Upper Limit [a]	675916	4.05	1770112	5.02	817772	6.42	1256194	7.68	766628	10.41	1693288	11.81
Lower Limit [b]	168979	3.05	442528	4.02	204443	5.42	314049	6.68	191657	9.41	423322	10.81
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31772-MB	332119	3.55	902477	4.52	419666	5.92	618878	7.17	391193	9.91	883033	11.31
OP31772-BS	327249	3.55	872954	4.53	411171	5.92	616895	7.18	382782	9.91	827158	11.31
OP31772-MS	333405	3.55	893598	4.52	414512	5.92	629401	7.18	386607	9.91	829250	11.31
OP31772-MSD	326625	3.55	882593	4.52	409269	5.92	613942	7.18	379082	9.91	815720	11.32
MC17750-2	308146	3.55	856420	4.52	397369	5.92	596254	7.17	378345	9.91	840920	11.31
ZZZZZZ	317067	3.55	860290	4.52	391823	5.92	593934	7.17	374022	9.91	829105	11.31
ZZZZZZ	319238	3.55	831201	4.53	396731	5.92	609954	7.17	383073	9.91	829586	11.31
ZZZZZZ	323191	3.55	885196	4.52	410680	5.92	602883	7.17	381487	9.91	843279	11.31
ZZZZZZ	306604	3.55	812544	4.52	390153	5.92	586869	7.17	374160	9.91	822183	11.31
ZZZZZZ	318197	3.55	870235	4.52	388377	5.92	571549	7.17	370869	9.91	831089	11.31
ZZZZZZ	315662	3.55	841768	4.52	396699	5.92	594629	7.17	374068	9.91	835781	11.31
ZZZZZZ	310430	3.55	846999	4.52	388085	5.92	579446	7.17	362005	9.91	800986	11.31
ZZZZZZ	307600	3.55	825873	4.52	388465	5.92	585037	7.17	372837	9.91	826286	11.31
ZZZZZZ	300472	3.55	829152	4.52	372758	5.92	550181	7.17	339038	9.91	744329	11.31
ZZZZZZ	287095	3.55	793424	4.52	364554	5.92	539316	7.17	340507	9.91	741797	11.31
ZZZZZZ	288493	3.55	774609	4.52	363426	5.92	551432	7.17	360998	9.91	789961	11.31

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthreue-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retentiou time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU618-CC608	Injection Date:	01/24/13
Lab File ID:	UI1941.D	Injection Time:	09:19
Instrument ID:	GCMSU	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	104846	3.35	384575	4.33	231049	5.73	403749	6.99	420950	9.79	399173	11.34
Upper Limit [a]	209692	3.85	769150	4.83	462098	6.23	807498	7.49	841900	10.29	798346	11.84
Lower Limit [b]	52423	2.85	192288	3.83	115525	5.23	201875	6.49	210475	9.29	199587	10.84
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31771-MB	109127	3.35	400126	4.32	235205	5.73	404601	6.98	446942	9.78	410117	11.34
OP31771-BS	114666	3.35	417329	4.32	243625	5.73	423391	6.98	440899	9.79	399424	11.34
OP31771-MS	113543	3.35	412732	4.33	239979	5.73	411830	6.98	431890	9.79	402244	11.34
OP31771-MSD	112521	3.35	409705	4.32	238586	5.73	411708	6.98	440836	9.79	400383	11.34
MC17750-1	108316	3.35	402105	4.32	233507	5.73	414770	6.98	455144	9.78	415614	11.34
ZZZZZZ	109069	3.35	402764	4.32	234543	5.73	403494	6.98	437452	9.78	405516	11.34
ZZZZZZ	106452	3.35	394111	4.32	236084	5.73	396119	6.98	436969	9.78	404074	11.34
ZZZZZZ	111985	3.35	404696	4.32	241226	5.73	430693	6.98	463906	9.78	423898	11.33
ZZZZZZ	108639	3.35	398916	4.32	234235	5.73	414953	6.98	440824	9.78	409862	11.34
ZZZZZZ	136378	3.35	488420	4.32	289804	5.73	524774	6.98	591272	9.79	443959	11.34
ZZZZZZ	130679	3.35	473822	4.32	285179	5.73	502358	6.98	555103	9.79	415497	11.34

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU619-CC608	Injection Date:	01/25/13
Lab File ID:	U11961.D	Injection Time:	09:07
Instrument ID:	GCMSU	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	101629	3.35	376697	4.33	230067	5.73	401409	6.99	418868	9.79	398305	11.34
Upper Limit [a]	203258	3.85	753394	4.83	460134	6.23	802818	7.49	837736	10.29	796610	11.84
Lower Limit [b]	50815	2.85	188349	3.83	115034	5.23	200705	6.49	209434	9.29	199153	10.84

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
MC17727-1	131871	3.36	320324	4.32	162529	5.74	295190	6.99	214368	9.75	410135	11.15
MC17727-2	126643	3.35	318793	4.32	165272	5.73	285316	6.99	212221	9.75	403977	11.15
MC17727-1	102811	3.35	370950	4.33	217521	5.73	402786	6.98	448918	9.78	419737	11.34
MC17727-2	108643	3.35	398223	4.32	236572	5.73	405528	6.98	459838	9.78	424689	11.33
ZZZZZZ	110687	3.35	410429	4.32	243674	5.73	420325	6.98	461182	9.78	431008	11.34
ZZZZZZ	111608	3.35	412436	4.32	243400	5.73	415662	6.98	467063	9.78	424731	11.33
ZZZZZZ	109236	3.35	406390	4.32	231660	5.73	401152	6.98	437205	9.79	396645	11.34

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU626-CC623	Injection Date:	01/31/13
Lab File ID:	U12057.D	Injection Time:	10:59
Instrument ID:	GCMSU	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	85577	3.34	313596	4.32	188987	5.72	331495	6.98	362213	9.78	349709	11.33
Upper Limit [a]	171154	3.84	627192	4.82	377974	6.22	662990	7.48	724426	10.28	699418	11.83
Lower Limit [b]	42789	2.84	156798	3.82	94494	5.22	165748	6.48	181107	9.28	174855	10.83

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
MC17727-1	87615	3.34	318204	4.31	188785	5.72	336174	6.97	394743	9.77	369590	11.33

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(h) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17727-1	U12059.D	39.0	35.0	83.0	71.0	66.0	59.0
MC17727-1	U11965.D	32.0	34.0	87.0	69.0	65.0	64.0
MC17727-2	U11966.D	29.0	21.0	72.0	66.0	66.0	77.0
OP31771-BS	U11943.D	43.0	31.0	87.0	84.0	80.0	96.0
OP31771-MB	U11942.D	34.0	24.0	69.0	69.0	71.0	80.0
OP31771-MS	U11944.D	43.0	31.0	87.0	75.0	78.0	93.0
OP31771-MSD	U11945.D	42.0	30.0	85.0	72.0	75.0	88.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17727-1	U11963.D	30.0	34.0	85.0	70.0	72.0	70.0
MC17727-2	U11964.D	31.0	23.0	70.0	67.0	73.0	85.0
OP31772-BS	I81329.D	41.0	31.0	87.0	77.0	78.0	82.0
OP31772-MB	I81328.D	35.0	27.0	71.0	67.0	72.0	73.0
OP31772-MS	I81330.D	43.0	32.0	88.0	75.0	78.0	80.0
OP31772-MSD	I8133I.D	41.0	31.0	85.0	73.0	74.0	79.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-MB	BK21110.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17727-1, MC17727-2, MC17727-4

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	95%	36-173%
460-00-4	Bromofluorobenzene (S)	96%	36-173%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-BS	BK21111.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
OP31788-BSD	BK21112.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17727-1, MC17727-2, MC17727-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.067	94	0.12	86	17	60-140/30
106-93-4	1,2-Dibromoethane	0.071	0.066	93	0.12	86	6	60-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	Bromofluorobenzene (S)	104%	148%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	151%	36-173%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31788-MS	BK21113.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
OP31788-MSD	BK21114.D	1	01/29/13	NK	01/24/13	OP31788	GBK760
MC17722-3	BK21117.D	1	01/29/13	NK	01/24/13	OP31788	GBK760

The QC reported here applies to the following samples: Method: SW846 8011

MC17727-1, MC17727-2, MC17727-4

CAS No.	Compound	MC17722-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.0681	0.062	91	0.065	95	5	64-141/29
106-93-4	1,2-Dibromoethane	0.21		0.0681	0.32	162	0.36	220* [a]	12	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17722-3	Limits
460-00-4	Bromofluorobenzene (S)	94%	90%	77%	36-173%
460-00-4	Bromofluorobenzene (S)	106%	110%	97%	36-173%

(a) Outside control limits due to high level in sample relative to spike amount.

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17727-1	BK21135.D	78.0	94.0
MC17727-2	BK21136.D	88.0	112.0
MC17727-4	BK21137.D	82.0	105.0
OP31788-BS	BK21111.D	104.0	104.0
OP31788-BSD	BK21112.D	148.0	151.0
OP31788-MB	BK21110.D	95.0	96.0
OP31788-MS	BK21113.D	94.0	106.0
OP31788-MSD	BK21114.D	90.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBK760-ICC760	Injection Date:	01/29/13
Lab File ID:	BK21105.D	Injection Time:	10:12
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.69	4.44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP31788-MB	BK21110.D	01/29/13	12:14	4.69	4.43
OP31788-BS	BK21111.D	01/29/13	12:39	4.69	4.44
OP31788-BSD	BK21112.D	01/29/13	13:03	4.69	4.43
OP31788-MS	BK21113.D	01/29/13	13:28	4.69	4.43
OP31788-MSD	BK21114.D	01/29/13	13:52	4.69	4.43
ZZZZZZ	BK21115.D	01/29/13	14:16	4.69	4.43
ZZZZZZ	BK21116.D	01/29/13	14:41	4.69	4.43
MC17722-3	BK21117.D	01/29/13	15:05	4.69	4.43
ZZZZZZ	BK21118.D	01/29/13	15:29	4.69	4.43
ZZZZZZ	BK21119.D	01/29/13	15:54	4.69	4.43

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17727
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBK760-CC760	Injection Date:	01/29/13
Lab File ID:	BK21131.D	Injection Time:	20:48
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.69	4.43

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK21132.D	01/29/13	21:13	4.69	4.43
ZZZZZZ	BK21133.D	01/29/13	21:38	4.69	4.43
ZZZZZZ	BK21134.D	01/29/13	22:02	4.69	4.43
MC17727-1	BK21135.D	01/29/13	22:27	4.69	4.43
MC17727-2	BK21136.D	01/29/13	22:52	4.69	4.43
MC17727-4	BK21137.D	01/29/13	23:17	4.69	4.43
GBK760-ECC760	BK21138.D	01/29/13	23:41	4.69	4.43

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.2

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17751

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/11/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW13-ROX-012313	MW13-ROX-012313-EB
P114-ROX-012313	P93C-ROX-012313
P93B-ROX-012313	P93A-ROX-012313
P93A-ROX-012313-Dup	TB-ROX-012313A-HCL
TB-ROX-012313A-ST	ROST3MW-ROX-012313
MW16-ROX-012313	MW22-ROX-012313
MW22-ROX-012313-Dup	TB-ROX-012313-HCL
TB-ROX-012313-ST	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC and SVOC LCS recoveries were outside evaluation criteria. The VOC surrogate 4-bromofluorobenzene was outside evaluation criteria for sample P114-ROX-012313. Benzene and phenanthrene were detected in the equipment blank. Sample P93B-ROX-012313 and field duplicate pairs P93A-ROX-012313/P93A-ROX-012313-Dup and MW22-ROX-012313/MW22-ROX-012313-Dup were diluted due to high levels of VOC target analytes. Additionally, the continuing calibration verification for vinyl acetate, 1,4-dioxane, and acrylonitrile exceeded 50 percent difference (%D). Professional judgment was used to qualify 2-butanone (MEK) in field duplicate pair MW22-ROX-012313/MW22-ROX-012313-Dup. These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated three of three coolers were received by the laboratory at temperatures of 0.7ºC, 0.9ºC, and 1.1ºC, which are outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/ Amount
MW13-ROX-012313-EB	VOCs	Benzene	2.1 ug/L
MW13-ROX-012313-EB	PAHs	Phenanthrene	0.020 ug/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not required qualification. Please see Section 12.0 of this review for additional qualifications regarding samples associated with the equipment blank.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSM1825-BS	VOCs	Acetone	**192**	NA	70-130
MSM1825-BS	VOCs	Acrolein	**58**	NA	70-130
MSM1825-BS	VOCs	trans-1,3-Dichloropropene	**139**	NA	70-130
MSM1825-BS	VOCs	1,4-Dioxane	**137**	NA	70-130
MSM1825-BS	VOCs	Ethyl methacrylate	**143**	NA	70-130
MSM1825-BS	VOCs	2-Hexanone	**176**	NA	70-130
MSM1825-BS	VOCs	4-Methyl-2-pentanone	**161**	NA	70-130
MSM1825-BS	VOCs	Vinyl acetate	**131**	NA	70-130
MSM1826-BS	VOCs	Acetone	**134**	NA	70-130
MSM1826-BS	VOCs	Acrylonitrile	**156**	NA	70-130
MSM1826-BS	VOCs	Chloromethane	**132**	NA	70-130
MSM1826-BS	VOCs	2-Hexanone	**139**	NA	70-130
MSM1826-BS	VOCs	4-Methyl-2-pentanone (MIBK)	**142**	NA	70-130
MSM1826-BS	VOCs	Vinyl acetate	**153**	NA	70-130
OP31790-BS	SVOCs	Aniline	**35**	NA	40-140
OP31790-BS	SVOCs	Diethyl phthalate	**39**	NA	40-140
OP31790-BS	SVOCs	Dimethyl phthalate	**10**	NA	40-140
OP31790-BS	SVOCs	Hexachlorocyclopentadiene	**26**	NA	40-140
OP31790-BS	SVOCs	Pyridine	**32**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS MSM1825-BS and OP31790-BS were associated with trip/equipment blank quality control samples and are not qualified.

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-012313	VOCs	Acrolein	**UJ**
P114-ROX-012313	VOCs	Acrolein	**UJ**
P93C-ROX-012313	VOCs	Acrolein	**UJ**
P93B-ROX-012313	VOCs	Acrolein	**UJ**
P93A-ROX-012313	VOCs	Acrolein	**UJ**
P93A-ROX-012313-Dup	VOCs	Acrolein	**UJ**
MW13-ROX-012313	SVOCs	Aniline	**UJ**
MW13-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
MW13-ROX-012313	SVOCs	Dimethyl phthalate	**UJ**
MW13-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW13-ROX-012313	SVOCs	Pyridine	**UJ**
P114-ROX-012313	SVOCs	Aniline	**UJ**
P114-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
P114-ROX-012313	SVOCs	Dimethyl phthalate	**UJ**
P114-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
P114-ROX-012313	SVOCs	Pyridine	**UJ**
P93C-ROX-012313	SVOCs	Aniline	**UJ**
P93C-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
P93C-ROX-012313	SVOCs	Dimethyl phthalate	**UJ**
P93C-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93C-ROX-012313	SVOCs	Pyridine	**UJ**
P93B-ROX-012313	SVOCs	Aniline	**UJ**
P93B-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
P93B-ROX-012313	SVOCs	Dimethyl phthalate	**J**
P93B-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93B-ROX-012313	SVOCs	Pyridine	**UJ**
P93A-ROX-012313	SVOCs	Aniline	**UJ**
P93A-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
P93A-ROX-012313	SVOCs	Dimethyl phthalate	**UJ**
P93A-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93A-ROX-012313	SVOCs	Pyridine	**UJ**
P93A-ROX-012313-Dup	SVOCs	Aniline	**UJ**
P93A-ROX-012313-Dup	SVOCs	Diethyl phthalate	**UJ**
P93A-ROX-012313-Dup	SVOCs	Dimethyl phthalate	**UJ**
P93A-ROX-012313-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93A-ROX-012313-Dup	SVOCs	Pyridine	**UJ**
ROST3MW-ROX-012313	SVOCs	Aniline	**UJ**
ROST3MW-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
ROST3MW-ROX-012313	SVOCs	Dimethyl phthalate	**UJ**
ROST3MW-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST3MW-ROX-012313	SVOCs	Pyridine	**UJ**
MW16-ROX-012313	SVOCs	Aniline	**UJ**
MW16-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
MW16-ROX-012313	SVOCs	Dimethyl phthalate	**UJ**
MW16-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW16-ROX-012313	SVOCs	Pyridine	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW22-ROX-012313	SVOCs	Aniline	**UJ**
MW22-ROX-012313	SVOCs	Diethyl phthalate	**UJ**
MW22-ROX-012313	SVOCs	Dimethyl phthalate	**UJ**
MW22-ROX-012313	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW22-ROX-012313	SVOCs	Pyridine	**UJ**
MW22-ROX-012313-Dup	SVOCs	Aniline	**UJ**
MW22-ROX-012313-Dup	SVOCs	Diethyl phthalate	**UJ**
MW22-ROX-012313-Dup	SVOCs	Dimethyl phthalate	**UJ**
MW22-ROX-012313-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW22-ROX-012313-Dup	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P114-ROX-012313 Run#1	VOCs	4-Bromofluorobenzene	**148**	70-130
P114-ROX-012313 Run#2	VOCs	4-Bromofluorobenzene	**139**	70-130

Analytical data that required qualification based on surrogate data are included in the table below. Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P114-ROX-012313	VOCs	Methyl tert butyl ether	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
P93A-ROX-012313	P93A-ROX-012313-Dup

Field ID	Field Duplicate ID
MW22-ROX-012313	MW22-ROX-012313-Dup

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification recovery for vinyl acetate, 1,4-dioxane, and acrylonitrile exceeded 50 percent difference (%D); analytes in associated samples were qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-012313	VOCs	1,4-Dioxane	**UJ**
MW13-ROX-012313	VOCs	Vinyl acetate	**UJ**
P114-ROX-012313	VOCs	Acrylonitrile	**UJ**
P114-ROX-012313	VOCs	1,4-Dioxane	**UJ**
P114-ROX-012313	VOCs	Vinyl acetate	**UJ**
P93C-ROX-012313	VOCs	1,4-Dioxane	**UJ**
P93C-ROX-012313	VOCs	Vinyl acetate	**UJ**
P93B-ROX-012313	VOCs	1,4-Dioxane	**UJ**
P93B-ROX-012313	VOCs	Vinyl acetate	**UJ**
P93A-ROX-012313	VOCs	1,4-Dioxane	**UJ**
P93A-ROX-012313	VOCs	Vinyl acetate	**UJ**
P93A-ROX-012313-Dup	VOCs	1,4-Dioxane	**UJ**
P93A-ROX-012313-Dup	VOCs	Vinyl acetate	**UJ**
ROST3MW-ROX-012313	VOCs	Acrylonitrile	**UJ**
ROST3MW-ROX-012313	VOCs	1,4-Dioxane	**UJ**
ROST3MW-ROX-012313	VOCs	Vinyl acetate	**UJ**
MW16-ROX-012313	VOCs	Acrylonitrile	**UJ**
MW16-ROX-012313	VOCs	1,4-Dioxane	**UJ**
MW16-ROX-012313	VOCs	Vinyl acetate	**UJ**
MW22-ROX-012313	VOCs	Acrylonitrile	**UJ**
MW22-ROX-012313	VOCs	1,4-Dioxane	**UJ**
MW22-ROX-012313	VOCs	Vinyl acetate	**UJ**
MW22-ROX-012313-Dup	VOCs	Acrylonitrile	**UJ**
MW22-ROX-012313-Dup	VOCs	1,4-Dioxane	**UJ**
MW22-ROX-012313-Dup	VOCs	Vinyl acetate	**UJ**

Additionally, professional judgment was used to qualify the common laboratory contaminant 2-butanone (MEK) reported at concentrations less than two times (>2X) the reporting limit (RL), since 2-butanone (MEK) is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
MW22-ROX-012313	2-Butanone (MEK)	295 ug/L	**U**	Professional Judgment
MW22-ROX-012313-Dup	2-Butanone (MEK)	310 ug/L	**U**	Professional Judgment

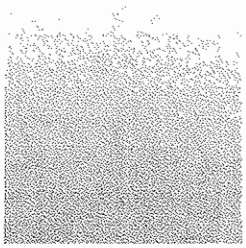
Professional judgment was also used to qualify as estimated, however not reject, benzene and phenanthrene data that was associated with equipment blank MW13-ROX-012313-EB due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW13-ROX-012313	VOCs	Benzene	-	**J**
ROST3MW-ROX-012313	VOCs	Benzene	-	**J**
MW16-ROX-012313	VOCs	Benzene	-	**J**
MW16-ROX-012313	PAHs	Phenanthrene	-	**J**

New England ACCUTEST LABORATORIES

02/11/13

Technical Report for



Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17751

Sampling Date: 01/23/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **151**

Reviewed on 2/11/2013

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **5**
Section 3: Summary of Hits 7
Section 4: Sample Results **11**
4.1: MC17751-1: MW13-ROX-012313 12
4.2: MC17751-2: MW13-ROX-012313-EB 19
4.3: MC17751-3: P114-ROX-012313 26
4.4: MC17751-4: P93C-ROX-012313 33
4.5: MC17751-5: P93B-ROX-012313 40
4.6: MC17751-6: P93A-ROX-012313 47
4.7: MC17751-7: P93A-ROX-012313-DUP 54
4.8: MC17751-8: TB-ROX-012313A-HCL 61
4.9: MC17751-9: TB-ROX-012313A-ST 64
4.10: MC17751-10: ROST3MW-ROX-012313 65
4.11: MC17751-11: MW16-ROX-012313 72
4.12: MC17751-12: MW22-ROX-012313 79
4.13: MC17751-13: MW22-ROX-012313-DUP 86
4.14: MC17751-14: TB-ROX-012313-HCL 93
4.15: MC17751-15: TB-ROX-012313-ST 96
Section 5: Misc. Forms 97
5.1: Chain of Custody 98
5.2: Sample Tracking Chronicle 101
5.3: Internal Chain of Custody 104
Section 6: GC/MS Volatiles - QC Data Summaries 108
6.1: Method Blank Summary 109
6.2: Blank Spike Summary 115
6.3: Matrix Spike/Matrix Spike Duplicate Summary 121
6.4: Internal Standard Area Summaries 127
6.5: Surrogate Recovery Summaries 129
Section 7: GC/MS Semi-volatiles - QC Data Summaries **130**
7.1: Method Blank Summary 131
7.2: Blank Spike Summary 134
7.3: Matrix Spike/Matrix Spike Duplicate Summary 137
7.4: Internal Standard Area Summaries 140
7.5: Surrogate Recovery Summaries 143
Section 8: GC Volatiles - QC Data Summaries 145
8.1: Method Blank Summary 146
8.2: Blank Spike Summary 147
8.3: Matrix Spike/Matrix Spike Duplicate Summary 148
8.4: Surrogate Recovery Summaries 149
8.5: GC Surrogate Retention Time Summaries 150

Sample Summary

Shell Oil

Job No: MC17751

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17751-1	01/23/13	10:00	LRRS	01/24/13	AQ	Ground Water	MW13-ROX-012313
MC17751-2	01/23/13	10:15	LRRS	01/24/13	AQ	Equipment Blank	MW13-ROX-012313-EB
MC17751-3	01/23/13	11:50	LRRS	01/24/13	AQ	Ground Water	P114-ROX-012313
MC17751-4	01/23/13	13:50	LRRS	01/24/13	AQ	Ground Water	P93C-ROX-012313
MC17751-5	01/23/13	14:30	LRRS	01/24/13	AQ	Ground Water	P93B-ROX-012313
MC17751-6	01/23/13	15:30	LRRS	01/24/13	AQ	Ground Water	P93A-ROX-012313
MC17751-7	01/23/13	15:30	LRRS	01/24/13	AQ	Ground Water	P93A-ROX-012313-DUP
MC17751-8	01/23/13	00:00	LRRS	01/24/13	AQ	Trip Blank Water	TB-ROX-012313A-HCL
MC17751-9	01/23/13	00:00	LRRS	01/24/13	AQ	Trip Blank Water	TB-ROX-012313A-ST
MC17751-10	01/23/13	11:00	LRRS	01/24/13	AQ	Ground Water	ROST3MW-ROX-012313
MC17751-11	01/23/13	12:35	LRRS	01/24/13	AQ	Ground Water	MW16-ROX-012313
MC17751-12	01/23/13	15:15	LRRS	01/24/13	AQ	Ground Water	MW22-ROX-012313
MC17751-13	01/23/13	15:15	LRRS	01/24/13	AQ	Ground Water	MW22-ROX-012313-DUP

Sample Summary
(continued)

Shell Oil

Job No: MC17751

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17751-14	01/23/13	00:00	LRRS	01/24/13	AQ	Trip Blank Water	TB-ROX-012313-HCL
MC17751-15	01/23/13	00:00	LRRS	01/24/13	AQ	Trip Blank Water	TB-ROX-012313-ST

ACCUTEST LABORATORIES

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC17751
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	Report Date	2/7/2013 3:57:24 PM

11 Sample(s) and 4 Trip Blank(s) were collected on 01/23/2013 and were received at Accutest on 01/24/2013 properly preserved, at 1.1 Deg. C and intact. These Samples received an Accutest job number of MC17751. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ	Batch ID: MSM1825

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17746-1MS, MC17746-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,4-Dioxane, Acetone, Acrolein, Vinyl Acetate are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Recovery(s) for 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Ethyl methacrylate, trans-1,3-Dichloropropene are outside control limits. Associated samples are non-detect for this compound.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, Chloromethane are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, Chloromethane, Methyl Tert Butyl Ether, Trichlorofluoromethane, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC17751-3 for 4-Bromofluorobenzene: Outside control limits due to possible matrix interference. Confirmed by reanalysis.
- Continuing calibration check standard MSM1825-CC1739 for vinyl acetate, 1,4-dioxane exceed 50% Difference (response bias high). Associated samples are non-detect for these compounds.

Matrix AQ	Batch ID: MSM1826

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17787-8MS, MC17787-8MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 2-Hexanone, Acetone, Chloromethane are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Recovery(s) for 4-Methyl-2-pentanone (MIBK), Acrylonitrile, Vinyl Acetate are outside control limits. Associated samples are non-detect for this compound.
- Matrix Spike Recovery(s) for 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloropropene, 1,2-Dichloroethane, 2,2-Dichloropropane, 2-Butanone (MEK), 2-Chloroethyl vinyl ether, 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Acrolein, Bromochloromethane, Chloromethane, Methyl Tert Butyl Ether, trans-1,3-Dichloropropene, Trichlorofluoromethane, Vinyl Acetate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, Acetone, Vinyl Acetate are outside control limits for sample MC17787-8MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Continuing calibration check standard MSM1826-CC1739 for acrylonitrile, vinyl acetate, 1,4-dioxane exceed 50% Difference (response bias high). Associated samples are non-detect for these compounds.
- MC17751-3: Confirmation run for surrogate recoveries.
- MC17751-3 for 4-Bromofluorobenzene: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP31790

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17750-5MS, MC17750-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Aniline, Diethyl phthalate, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for Aniline, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31791

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17750-6MS, MC17750-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31861

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17900-9MS, MC17900-9MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17751).

Summary of Hits

Job Number: MC17751
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/23/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17751-1	MW13-ROX-012313					
Benzene		6.7	0.50	0.24	ug/l	SW846 8260B
Methyl Tert Butyl Ether		8.2	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		2.7 J	5.5	0.60	ug/l	SW846 8270C
2-Methylnaphthalene		0.11 J	0.22	0.057	ug/l	SW846 8270C BY SIM
MC17751-2	MW13-ROX-012313-EB					
Benzene		2.1	0.50	0.24	ug/l	SW846 8260B
Phenanthrene		0.020 J	0.051	0.013	ug/l	SW846 8270C BY SIM
MC17751-3	P114-ROX-012313					
Methyl Tert Butyl Ether		3.0	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		2.4 J	5.3	0.58	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		5.9	2.1	0.49	ug/l	SW846 8270C
MC17751-4	P93C-ROX-012313					
Methyl Tert Butyl Ether		4.4	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		2.5 J	5.5	0.60	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		4.9	2.2	0.51	ug/l	SW846 8270C
MC17751-5	P93B-ROX-012313					
Benzene		415000	2500	1200	ug/l	SW846 8260B
4-Chloro-3-methyl phenol		1.3 J	11	0.59	ug/l	SW846 8270C
2,4-Dimethylphenol		2.1 J	11	1.7	ug/l	SW846 8270C
3&4-Methylphenol		1.4 J	11	1.1	ug/l	SW846 8270C
Phenol		176	27	5.4	ug/l	SW846 8270C
Butyl benzyl phthalate		3.2 J	5.3	0.70	ug/l	SW846 8270C
Di-n-butyl phthalate		3.0 J	5.3	0.58	ug/l	SW846 8270C
Dimethyl phthalate		0.24 J	5.3	0.22	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		5.5	2.1	0.49	ug/l	SW846 8270C
Hexachlorobenzene		0.58 J	5.3	0.56	ug/l	SW846 8270C
Acenaphthene		0.14	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.072 J	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.13	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(a)anthracene		0.22	0.053	0.032	ug/l	SW846 8270C BY SIM
Benzo(a)pyrene		0.11	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.13	0.053	0.025	ug/l	SW846 8270C BY SIM
Benzo(g,h,i)perylene		0.12	0.11	0.040	ug/l	SW846 8270C BY SIM
Benzo(k)fluoranthene		0.12	0.11	0.062	ug/l	SW846 8270C BY SIM
Chrysene		0.12	0.11	0.077	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC17751
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/23/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Dibenzo(a,h)anthracene		0.12	0.11	0.044	ug/l	SW846 8270C BY SIM
Fluoranthene		0.13	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.12	0.11	0.049	ug/l	SW846 8270C BY SIM
Indeno(1,2,3-cd)pyrene		0.12	0.11	0.049	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.12 J	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.16	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.13	0.11	0.038	ug/l	SW846 8270C BY SIM
MC17751-6	P93A-ROX-012313					
Benzene		101000	250	120	ug/l	SW846 8260B
Phenol		168	26	5.2	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		9.9	2.1	0.48	ug/l	SW846 8270C
Acenaphthene		0.16	0.10	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.028 J	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluorene		0.21	0.10	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		9.6	0.21	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		9.3	0.21	0.054	ug/l	SW846 8270C BY SIM
Phenanthrene		0.24	0.052	0.013	ug/l	SW846 8270C BY SIM
MC17751-7	P93A-ROX-012313-DUP					
Benzene		98500	250	120	ug/l	SW846 8260B
Phenol		165	5.2	1.0	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		11.0	2.1	0.48	ug/l	SW846 8270C
Acenaphthene		0.14	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.19	0.10	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		9.4	0.21	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		9.0	0.21	0.054	ug/l	SW846 8270C BY SIM
Phenanthrene		0.23	0.052	0.013	ug/l	SW846 8270C BY SIM
MC17751-8	TB-ROX-012313A-HCL					
No hits reported in this sample.						
MC17751-9	TB-ROX-012313A-ST					
No hits reported in this sample.						
MC17751-10	ROST3MW-ROX-012313					
Benzene		5.1	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		2.8 J	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		1.3 J	5.0	0.55	ug/l	SW846 8260B
Ethylbenzene		29.6	1.0	0.51	ug/l	SW846 8260B

Summary of Hits

Job Number: MC17751
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/23/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Isopropylbenzene		6.6	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		1.1 J	5.0	0.57	ug/l	SW846 8260B
Naphthalene		7.6	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		15.6	5.0	0.58	ug/l	SW846 8260B
Toluene		1.6	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		78.6	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		22.0	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		114	1.0	0.73	ug/l	SW846 8260B
o-Xylene		15.9	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		130	1.0	0.58	ug/l	SW846 8260B
Acenaphthene		0.25	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.059 J	0.10	0.013	ug/l	SW846 8270C BY SIM
Anthracene		0.074 J	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluorene		0.31	0.10	0.046	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		6.1	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		8.7	0.20	0.052	ug/l	SW846 8270C BY SIM
Phenantbrene		0.68	0.050	0.013	ug/l	SW846 8270C BY SIM
MC17751-11	MW16-ROX-012313					
Benzene		0.57	0.50	0.24	ug/l	SW846 8260B
2-Butanone (MEK)		2.9 J	5.0	2.4	ug/l	SW846 8260B
2-Methylnaphthalene		0.085 J	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.025 J	0.053	0.013	ug/l	SW846 8270C BY SIM
MC17751-12	MW22-ROX-012313					
Benzene		2120	25	12	ug/l	SW846 8260B
2-Butanone (MEK)		295	250	120	ug/l	SW846 8260B
Ethylbenzene		3450	50	25	ug/l	SW846 8260B
Isopropylbenzene		126 J	250	25	ug/l	SW846 8260B
Naphthalene		396	250	25	ug/l	SW846 8260B
n-Propylbenzene		220 J	250	29	ug/l	SW846 8260B
Toluene		10500	50	25	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		1230	250	17	ug/l	SW846 8260B
1,3,5-Trimetbylbenzene		288	250	23	ug/l	SW846 8260B
m,p-Xylene		7560	50	37	ug/l	SW846 8260B
o-Xylene		3730	50	29	ug/l	SW846 8260B
Xylene (total)		11300	50	29	ug/l	SW846 8260B
2,4-Dimethylphenol		14.6	10	1.6	ug/l	SW846 8270C
2-Methylphenol		18.0	10	2.1	ug/l	SW846 8270C
3&4-Methylphenol		32.2	10	1.0	ug/l	SW846 8270C
Phenol		11.1	5.2	1.1	ug/l	SW846 8270C
Benzyl Alcohol		3.1 J	10	1.8	ug/l	SW846 8270C
Di-n-butyl phthalate		2.4 J	5.2	0.57	ug/l	SW846 8270C

Summary of Hits

Job Number: MC17751
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/23/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Acenaphthene		0.18	0.10	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.020 J	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluorene		0.18	0.10	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		27.6	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		50.0	0.21	0.054	ug/l	SW846 8270C BY SIM
Phenanthrene		0.19	0.052	0.013	ug/l	SW846 8270C BY SIM
MC17751-13	MW22-ROX-012313-DUP					
Benzene		2090	25	12	ug/l	SW846 8260B
2-Butanone (MEK)		310	250	120	ug/l	SW846 8260B
Ethylbenzene		3190	50	25	ug/l	SW846 8260B
Isopropylbenzene		124 J	250	25	ug/l	SW846 8260B
Naphthalene		377	250	25	ug/l	SW846 8260B
n-Propylbenzene		234 J	250	29	ug/l	SW846 8260B
Toluene		9060	50	25	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		1260	250	17	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		291	250	23	ug/l	SW846 8260B
m,p-Xylene		6960	50	37	ug/l	SW846 8260B
o-Xylene		3520	50	29	ug/l	SW846 8260B
Xylene (total)		10500	50	29	ng/l	SW846 8260B
2,4-Dimethylphenol		14.9	11	1.6	ng/l	SW846 8270C
2-Methylphenol		18.7	11	2.1	ug/l	SW846 8270C
3&4-Methylphenol		34.9	11	1.1	ug/l	SW846 8270C
Phenol		12.2	5.3	1.1	ug/l	SW846 8270C
Benzyl Alcohol		3.3 J	11	1.9	ug/l	SW846 8270C
Di-n-butyl phthalate		2.4 J	5.3	0.58	ug/l	SW846 8270C
Acenaphthene		0.18	0.11	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.18	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		28.0	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		50.1	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.20	0.053	0.013	ug/l	SW846 8270C BY SIM
MC17751-14	TB-ROX-012313-HCL					
No hits reported in this sample.						
MC17751-15	TB-ROX-012313-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW13-ROX-012313		
Lab Sample ID:	MC17751-1	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53733.D	1	01/28/13	AMY	n/a	n/a	MSM1825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	J
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	6.7	0.50	0.24	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.62	ng/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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 componnd

Report of Analysis

Client Sample ID:	MW13-ROX-012313		
Lab Sample ID:	MC17751-1	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	UJ
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8.2	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	UJ
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW13-ROX-012313		
Lab Sample ID:	MC17751-1	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	123%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW13-ROX-012313		
Lab Sample ID:	MC17751-1	**Date Sampled:**	01/23/13
Matrix:	AQ - Grouud Water	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8860.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.4	ug/l	
95-57-8	2-Chlorophenol	ND	5.5	0.78	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.2	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.59	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.5	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	2.0	ug/l	
62-53-3	Aniline	ND	11	0.70	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.5	0.80	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.5	0.73	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.5	1.1	ng/l	
106-47-8	4-Chloroaniline	ND	11	3.7	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.5	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.5	0.38	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.5	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.5	1.6	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.5	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.88	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.84	ng/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.5	0.98	ug/l	
132-64-9	Dibenzofuran	ND	2.2	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	2.7	5.5	0.60	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.5	1.4	ug/l	

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

Report of Analysis

Client Sample ID:	MWI3-ROX-012313		
Lab Sample ID:	MC17751-1	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.5	0.55	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.5	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.5	0.58	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.5	1.7	ug/l	
78-59-1	Isophorone	ND	5.5	0.55	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.95	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.4	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.5	0.55	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.5	1.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.5	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.5	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.55	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		15-110%
4165-62-2	Phenol-d5	36%		15-110%
118-79-6	2,4,6-Tribromophenol	88%		15-110%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	40%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW13-ROX-012313		
Lab Sample ID:	MC17751-1	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61353.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.015	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.055	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.055	0.026	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.041	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.064	ug/l	
218-01-9	Chrysene	ND	0.11	0.080	ng/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.046	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.036	ug/l	
86-73-7	Fluorene	ND	0.11	0.051	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.051	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.11	0.22	0.057	ug/l	J
85-01-8	Phenanthrene	ND	0.055	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		15-110%
4165-62-2	Phenol-d5	37%		15-110%
118-79-6	2,4,6-Tribromophenol	90%		15-110%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	46%		30-130%

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:	MW13-ROX-012313		
Lab Sample ID:	MC17751-1	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78248.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.0 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	106%		36-173%
460-00-4	Bromofluorobenzene (S)	82%		36-173%

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

Report of Analysis

Client Sample ID:	MW13-ROX-012313-EB		
Lab Sample ID:	MC17751-2	**Date Sampled:**	01/23/13
Matrix:	AQ - Equipment Blank	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53732.D	1	01/28/13	AMY	n/a	n/a	MSM1825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	2.1	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	MW13-ROX-012313-EB		
Lab Sample ID:	MC17751-2	**Date Sampled:**	01/23/13
Matrix:	AQ - Equipment Blank	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	MW13-ROX-012313-EB		
Lab Sample ID:	MC17751-2	**Date Sampled:**	01/23/13
Matrix:	AQ - Equipment Blank	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	81%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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:	MW13-ROX-012313-EB		
Lab Sample ID:	MC17751-2	Date Sampled:	01/23/13
Matrix:	AQ - Equipment Blank	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8861.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.1	0.72	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.1	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.65	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.74	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.67	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.98	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.82	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.78	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.91	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	1.3	ug/l	

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

Report of Analysis

Client Sample ID:	MW13-ROX-012313-EB		
Lab Sample ID:	MC17751-2	**Date Sampled:**	01/23/13
Matrix:	AQ - Equipment Blank	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.1	0.51	ug/l	
131-11-3	Dimethyl phthalate	ND	5.1	0.21	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.47	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.54	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.1	1.6	ug/l	
78-59-1	Isophorone	ND	5.1	0.51	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.88	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.51	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.98	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.51	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		15-110%
4165-62-2	Phenol-d5	22%		15-110%
118-79-6	2,4,6-Tribromophenol	73%		15-110%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	52%		30-130%
1718-51-0	Terphenyl-d14	76%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW13-ROX-012313-EB		
Lab Sample ID:	MC17751-2	**Date Sampled:**	01/23/13
Matrix:	AQ - Equipment Blank	**Date Received:**	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61354.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.051	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.051	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.074	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.053	ug/l	
85-01-8	Phenanthrene	0.020	0.051	0.013	ug/l	J
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		15-110%
4165-62-2	Phenol-d5	22%		15-110%
118-79-6	2,4,6-Tribromophenol	76%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	86%		30-130%

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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-ROX-012313-EB		
Lab Sample ID:	MC17751-2	**Date Sampled:**	01/23/13
Matrix:	AQ - Equipment Blank	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78249.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	93%		36-173%
460-00-4	Bromofluorobenzene (S)	89%		36-173%

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

Report of Analysis

Client Sample ID:	P114-ROX-012313		
Lab Sample ID:	MC17751-3	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53734.D	1	01/28/13	AMY	n/a	n/a	MSM1825
Run #2 [a]	M53763.D	1	01/29/13	AMY	n/a	n/a	MSM1826

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	UJ
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Bntanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ng/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	P114-ROX-012313		
Lab Sample ID:	MC17751-3	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	UJ
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.0	1.0	0.41	ug/l	J
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethaue	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	UJ
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	P114-ROX-012313		
Lab Sample ID:	MC17751-3	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	92%	70-130%
2037-26-5	Toluene-D8	91%	88%	70-130%
460-00-4	4-Bromofluorobenzene	148% [b]	139% [b]	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Confirmation run for surrogate recoveries.
(b) Outside control limits due to possible matrix interference. Confirmed by 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:	P114-ROX-012313		
Lab Sample ID:	MC17751-3	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8862.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.74	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.58	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.6	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.69	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthaleue	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	his(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.85	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.81	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.94	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	2.4	5.3	0.58	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	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:	P114-ROX-012313		
Lab Sample ID:	MC17751-3	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.3	0.21	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	5.9	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.91	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	34%		15-110%
4165-62-2	Phenol-d5	27%		15-110%
118-79-6	2,4,6-Tribromophenol	83%		15-110%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	63%		30-130%

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

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RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-012313		
Lab Sample ID:	MC17751-3	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61355.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ng/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.034	ug/l	
86-73-7	Fluorene	ND	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.048	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.21	0.055	ug/l	
85-01-8	Phenanthrene	ND	0.053	0.013	ug/l	
129-00-0	Pyrene	ND	0.11	0.037	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		15-110%
4165-62-2	Phenol-d5	28%		15-110%
118-79-6	2,4,6-Tribromophenol	85%		15-110%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	71%		30-130%
1718-51-0	Terphenyl-d14	73%		30-130%

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:	P114-ROX-012313		
Lab Sample ID:	MC17751-3	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78250.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	37.0 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0098	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	78%		36-173%
460-00-4	Bromofluorobenzene (S)	75%		36-173%

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

Report of Analysis

Client Sample ID:	P93C-ROX-012313		
Lab Sample ID:	MC17751-4	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53735.D	1	01/28/13	AMY	n/a	n/a	MSM1825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ng/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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

Report of Analysis

Client Sample ID:	P93C-ROX-012313		
Lab Sample ID:	MC17751-4	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	u5
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.4	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	u5
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	P93C-ROX-012313		
Lab Sample ID:	MC17751-4	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P93C-ROX-012313		
Lab Sample ID:	MC17751-4	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8863.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.4	ug/l	
95-57-8	2-Chlorophenol	ND	5.5	0.78	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.60	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.2	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.59	ug/l	
100-02-7	4-Nitrophenol	ND	22	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.5	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	2.0	ug/l	
62-53-3	Aniline	ND	11	0.70	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.5	0.80	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.5	0.73	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.5	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.7	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.5	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.5	0.38	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.5	0.42	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.5	1.6	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.5	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.88	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.84	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.5	0.98	ug/l	
132-64-9	Dibenzofuran	ND	2.2	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	2.5	5.5	0.60	ng/l	J
117-84-0	Di-n-octyl phthalate	ND	5.5	1.4	ug/l	

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

Report of Analysis

Client Sample ID:	P93C-ROX-012313		
Lab Sample ID:	MC17751-4	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.5	0.55	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.5	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	4.9	2.2	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.5	0.58	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.4	ng/l	UJ
67-72-1	Hexachloroethane	ND	5.5	1.7	ug/l	
78-59-1	Isophorone	ND	5.5	0.55	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.95	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.4	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.5	0.55	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.5	1.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.5	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.5	1.4	ug/l	
110-86-1	Pyridine	ND	11	0.55	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%		15-110%
4165-62-2	Phenol-d5	27%		15-110%
118-79-6	2,4,6-Tribromophenol	80%		15-110%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	51%		30-130%

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

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

Report of Analysis

Client Sample ID:	P93C-ROX-012313		
Lab Sample ID:	MC17751-4	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61356.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.015	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.055	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.055	0.026	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.041	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.064	ug/l	
218-01-9	Chrysene	ND	0.11	0.080	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.046	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.036	ug/l	
86-73-7	Fluorene	ND	0.11	0.051	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.051	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.22	0.057	ug/l	
85-01-8	Phenanthrene	ND	0.055	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	36%		15-110%
4165-62-2	Phenol-d5	28%		15-110%
118-79-6	2,4,6-Tribromophenol	83%		15-110%
4165-60-0	Nitrobenzene-d5	78%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	60%		30-130%

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:	P93C-ROX-012313		
Lab Sample ID:	MC17751-4	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78251.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.4 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	92%		36-173%
460-00-4	Bromofluorobenzene (S)	84%		36-173%

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

Report of Analysis

Client Sample ID:	P93B-ROX-012313		
Lab Sample ID:	MC17751-5	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53736.D	1000	01/28/13	AMY	n/a	n/a	MSM1825
Run #2	M53762.D	5000	01/29/13	AMY	n/a	n/a	MSM1826

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

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5000	3000	ug/l	
107-02-8	Acrolein	ND	25000	10000	ug/l	UJ
107-13-1	Acrylonitrile	ND	5000	3200	ug/l	
71-43-2	Benzene	415000 [a]	2500	1200	ug/l	
108-86-1	Bromobenzene	ND	5000	620	ug/l	
74-97-5	Bromochloromethane	ND	5000	1300	ug/l	
75-27-4	Bromodichloromethane	ND	1000	580	ug/l	
75-25-2	Bromoform	ND	1000	780	ug/l	
74-83-9	Bromomethane	ND	2000	1000	ug/l	
78-93-3	2-Butanone (MEK)	ND	5000	2400	ug/l	
104-51-8	n-Butylbenzene	ND	5000	610	ug/l	
135-98-8	sec-Butylbenzene	ND	5000	550	ug/l	
98-06-6	tert-Butylbenzene	ND	5000	640	ug/l	
75-15-0	Carbon disulfide	ND	5000	610	ug/l	
56-23-5	Carbon tetrachloride	ND	1000	870	ug/l	
108-90-7	Chlorobenzene	ND	1000	470	ug/l	
75-00-3	Chloroethane	ND	2000	500	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5000	1300	ug/l	
67-66-3	Chloroform	ND	1000	500	ug/l	
74-87-3	Chloromethane	ND	2000	730	ug/l	
95-49-8	o-Chlorotoluene	ND	5000	650	ug/l	
106-43-4	p-Chlorotoluene	ND	5000	480	ug/l	
124-48-1	Dibromochloromethane	ND	1000	530	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1000	930	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1000	450	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1000	640	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2000	1700	ug/l	
75-34-3	1,1-Dichloroethane	ND	1000	620	ug/l	
107-06-2	1,2-Dichloroethane	ND	1000	630	ug/l	
75-35-4	1,1-Dichloroethene	ND	1000	410	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1000	640	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1000	950	ug/l	

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:	P93B-ROX-012313		
Lab Sample ID:	MC17751-5	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2000	720	ug/l	
142-28-9	1,3-Dichloropropane	ND	5000	640	ug/l	
594-20-7	2,2-Dichloropropane	ND	5000	1600	ug/l	
563-58-6	1,1-Dichloropropene	ND	5000	910	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	500	450	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	500	200	ug/l	
123-91-1	1,4-Dioxane	ND	25000	15000	ug/l	u5
97-63-2	Ethyl methacrylate	ND	5000	810	ug/l	
100-41-4	Ethylbenzene	ND	1000	510	ug/l	
87-68-3	Hexachlorobutadiene	ND	5000	2100	ug/l	
591-78-6	2-Hexanone	ND	5000	2000	ug/l	
98-82-8	Isopropylbenzene	ND	5000	500	ug/l	
99-87-6	p-Isopropyltoluene	ND	5000	570	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1000	410	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5000	2900	ug/l	
74-95-3	Methylene bromide	ND	5000	1100	ug/l	
75-09-2	Methylene chloride	ND	2000	830	ug/l	
91-20-3	Naphthalene	ND	5000	500	ug/l	
103-65-1	n-Propylbenzene	ND	5000	580	ug/l	
100-42-5	Styrene	ND	5000	450	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5000	570	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1000	600	ug/l	
127-18-4	Tetrachloroethene	ND	1000	420	ug/l	
108-88-3	Toluene	ND	1000	510	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5000	1300	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5000	1300	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1000	850	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1000	500	ug/l	
79-01-6	Trichloroethene	ND	1000	780	ug/l	
75-69-4	Trichlorofluoromethane	ND	1000	290	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5000	850	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5000	350	ug/l	
108-67-8	1,3,5-Trimethylbeuzene	ND	5000	470	ug/l	
108-05-4	Vinyl Acetate	ND	5000	1300	ug/l	u5
75-01-4	Vinyl chloride	ND	1000	630	ug/l	
	m,p-Xylene	ND	1000	730	ug/l	
95-47-6	o-Xylene	ND	1000	580	ug/l	
1330-20-7	Xylene (total)	ND	1000	580	ug/l	

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

Report of Analysis

Client Sample ID:	P93B-ROX-012313		
Lab Sample ID:	MC17751-5	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	103%	70-130%
2037-26-5	Toluene-D8	100%	97%	70-130%
460-00-4	4-Bromofluorobenzene	94%	105%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(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:	P93B-ROX-012313		
Lab Sample ID:	MC17751-5	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8864.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2	W8905.D	5	01/28/13	KR	01/25/13	OP31790	MSW418

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2	940 ml	1.0 ml

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.75	ug/l	
59-50-7	4-Chloro-3-methyl phenol	1.3	11	0.59	ug/l	J
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	2.1	11	1.7	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	1.4	11	1.1	ug/l	J
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	176 [a]	27	5.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	3.2	5.3	0.70	ug/l	J
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.82	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.95	ng/l	
132-64-9	Dibenzofuran	ND	2.1	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	3.0	5.3	0.58	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	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:	P93B-ROX-012313		
Lab Sample ID:	MC17751-5	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	uJ
131-11-3	Dimethyl phthalate	0.24	5.3	0.22	ug/l	J J
117-81-7	bis(2-Ethylhexyl)phthalate	5.5	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	0.58	5.3	0.56	ug/l	J
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	uJ
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.92	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridiue	ND	11	0.53	ug/l	uJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%	37%	15-110%
4165-62-2	Phenol-d5	37%	34%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	64%	15-110%
4165-60-0	Nitrobenzene-d5	77%	69%	30-130%
321-60-8	2-Fluorohiphenyl	66%	60%	30-130%
1718-51-0	Terphenyl-d14	58%	47%	30-130%

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

(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 fouud in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93B-ROX-012313		
Lab Sample ID:	MC17751-5	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61357.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.14	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.072	0.11	0.014	ug/l	J
120-12-7	Anthracene	0.13	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	0.22	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	0.11	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	0.13	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.12	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	0.12	0.11	0.062	ug/l	
218-01-9	Chrysene	0.12	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.12	0.11	0.044	ug/l	
206-44-0	Fluoranthene	0.13	0.11	0.035	ug/l	
86-73-7	Fluorene	0.12	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.12	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.12	0.21	0.055	ug/l	J
85-01-8	Phenanthrene	0.16	0.053	0.013	ug/l	
129-00-0	Pyrene	0.13	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%		15-110%
4165-62-2	Phenol-d5	40%		15-110%
118-79-6	2,4,6-Tribromophenol	94%		15-110%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	67%		30-130%

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:	P93B-ROX-012313		
Lab Sample ID:	MC17751-5	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78252.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.3 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	96%		36-173%
460-00-4	Bromofluorobenzene (S)	92%		36-173%

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

Report of Analysis

Client Sample ID:	P93A-ROX-012313		
Lab Sample ID:	MC17751-6	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53737.D	500	01/28/13	AMY	n/a	n/a	MSM1825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	2500	1500	ug/l	
107-02-8	Acrolein	ND	13000	5100	ug/l	
107-13-1	Acrylonitrile	ND	2500	1600	ug/l	
71-43-2	Benzene	101000	250	120	ug/l	
108-86-1	Bromobenzene	ND	2500	310	ug/l	
74-97-5	Bromochlorometbane	ND	2500	630	ug/l	
75-27-4	Bromodichloromethane	ND	500	290	ug/l	
75-25-2	Bromoform	ND	500	390	ug/l	
74-83-9	Bromomethane	ND	1000	510	ug/l	
78-93-3	2-Butanone (MEK)	ND	2500	1200	ug/l	
104-51-8	n-Butylbenzene	ND	2500	300	ug/l	
135-98-8	sec-Butylbenzene	ND	2500	280	ug/l	
98-06-6	tert-Butylbenzene	ND	2500	320	ug/l	
75-15-0	Carbon disulfide	ND	2500	310	ug/l	
56-23-5	Carbon tetrachloride	ND	500	430	ug/l	
108-90-7	Chlorobenzene	ND	500	230	ug/l	
75-00-3	Chloroethane	ND	1000	250	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	2500	630	ug/l	
67-66-3	Chloroform	ND	500	250	ug/l	
74-87-3	Chloromethane	ND	1000	370	ug/l	
95-49-8	o-Chlorotoluene	ND	2500	320	ug/l	
106-43-4	p-Chlorotoluene	ND	2500	240	ug/l	
124-48-1	Dibromochloromethane	ND	500	260	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	500	460	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	500	230	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	500	320	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1000	860	ug/l	
75-34-3	1,1-Dichloroethane	ND	500	310	ug/l	
107-06-2	1,2-Dichloroethane	ND	500	320	ug/l	
75-35-4	1,1-Dichloroethene	ND	500	210	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	500	320	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	500	470	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:	P93A-ROX-012313		
Lab Sample ID:	MC17751-6	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1000	360	ug/l	
142-28-9	1,3-Dichloropropane	ND	2500	320	ug/l	
594-20-7	2,2-Dichloropropane	ND	2500	790	ug/l	
563-58-6	1,1-Dichloropropene	ND	2500	460	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	250	220	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	250	98	ug/l	
123-91-1	1,4-Dioxane	ND	13000	7400	ug/l	UJ
97-63-2	Ethyl methacrylate	ND	2500	410	ug/l	
100-41-4	Ethylbenzene	ND	500	250	ug/l	
87-68-3	Hexachlorobutadiene	ND	2500	1000	ug/l	
591-78-6	2-Hexanone	ND	2500	980	ug/l	
98-82-8	Isopropylbenzene	ND	2500	250	ug/l	
99-87-6	p-Isopropyltoluene	ND	2500	290	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	500	210	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	2500	1500	ug/l	
74-95-3	Methylene bromide	ND	2500	550	ug/l	
75-09-2	Methylene chloride	ND	1000	420	ug/l	
91-20-3	Naphthalene	ND	2500	250	ug/l	
103-65-1	n-Propylbenzene	ND	2500	290	ug/l	
100-42-5	Styrene	ND	2500	230	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2500	290	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	300	ug/l	
127-18-4	Tetrachloroethene	ND	500	210	ug/l	
108-88-3	Toluene	ND	500	250	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2500	630	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2500	640	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	500	420	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	500	250	ug/l	
79-01-6	Trichloroethene	ND	500	390	ug/l	
75-69-4	Trichlorofluoromethane	ND	500	140	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2500	420	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2500	170	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2500	230	ug/l	
108-05-4	Vinyl Acetate	ND	2500	630	ug/l	UJ
75-01-4	Vinyl chloride	ND	500	310	ug/l	
	m,p-Xylene	ND	500	370	ug/l	
95-47-6	o-Xylene	ND	500	290	ug/l	
1330-20-7	Xylene (total)	ND	500	290	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:	P93A-ROX-012313		
Lab Sample ID:	MC17751-6	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorohenzene	103%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P93A-ROX-012313		
Lab Sample ID:	MC17751-6	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8865.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2	W8906.D	5	01/28/13	KR	01/25/13	OP31790	MSW418

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.73	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	168 [a]	26	5.2	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.75	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.68	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	1.0	ng/l	
106-47-8	4-Chloroaniline	ND	10	3.5	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.99	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.83	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.79	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.92	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	1.3	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:	P93A-ROX-012313		
Lab Sample ID:	MC17751-6	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.52	ug/l	uJ
131-11-3	Dimethyl phthalate	ND	5.2	0.21	ug/l	uJ
117-81-7	bis(2-Ethylhexyl)phthalate	9.9	2.1	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	uJ
67-72-1	Hexachloroethane	ND	5.2	1.6	ug/l	
78-59-1	Isophorone	ND	5.2	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.89	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.99	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	uJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	35%	29%	15-110%
4165-62-2	Phenol-d5	33%	29%	15-110%
118-79-6	2,4,6-Tribromophenol	89%	60%	15-110%
4165-60-0	Nitrobenzene-d5	68%	58%	30-130%
321-60-8	2-Fluorobiphenyl	56%	49%	30-130%
1718-51-0	Terphenyl-d14	48%	39%	30-130%

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

(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:	P93A-ROX-012313		
Lab Sample ID:	MC17751-6	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61358.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.16	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	0.028	0.10	0.018	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.052	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.039	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.075	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.034	ug/l	
86-73-7	Fluorene	0.21	0.10	0.048	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
90-12-0	1-Methylnaphthalene	9.6	0.21	0.14	ug/l	
91-57-6	2-Methylnaphthalene	9.3	0.21	0.054	ug/l	
85-01-8	Phenanthrene	0.24	0.052	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.037	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		15-110%
4165-62-2	Phenol-d5	35%		15-110%
118-79-6	2,4,6-Trihromophenol	88%		15-110%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

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:	P93A-ROX-012313		
Lab Sample ID:	MC17751-6	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78254.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.0 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	81%		36-173%
460-00-4	Bromofluorobenzene (S)	81%		36-173%

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

Report of Analysis

Client Sample ID:	P93A-ROX-012313-DUP		
Lab Sample ID:	MC17751-7	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53738.D	500	01/28/13	AMY	n/a	n/a	MSM1825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	2500	1500	ug/l	
107-02-8	Acrolein	ND	13000	5100	ug/l	U5
107-13-1	Acrylonitrile	ND	2500	1600	ug/l	
71-43-2	Benzene	98500	250	120	ug/l	
108-86-1	Bromobenzene	ND	2500	310	ug/l	
74-97-5	Bromochloromethane	ND	2500	630	ug/l	
75-27-4	Bromodichloromethane	ND	500	290	ug/l	
75-25-2	Bromoform	ND	500	390	ug/l	
74-83-9	Bromomethane	ND	1000	510	ug/l	
78-93-3	2-Butanone (MEK)	ND	2500	1200	ug/l	
104-51-8	n-Butylbenzene	ND	2500	300	ug/l	
135-98-8	sec-Butylbenzene	ND	2500	280	ug/l	
98-06-6	tert-Butylbenzene	ND	2500	320	ug/l	
75-15-0	Carbon disulfide	ND	2500	310	ug/l	
56-23-5	Carbon tetrachloride	ND	500	430	ug/l	
108-90-7	Chlorobenzene	ND	500	230	ug/l	
75-00-3	Chloroethane	ND	1000	250	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	2500	630	ug/l	
67-66-3	Chloroform	ND	500	250	ug/l	
74-87-3	Chloromethane	ND	1000	370	ug/l	
95-49-8	o-Chlorotoluene	ND	2500	320	ug/l	
106-43-4	p-Chlorotoluene	ND	2500	240	ug/l	
124-48-1	Dibromochloromethane	ND	500	260	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	500	460	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	500	230	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	500	320	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1000	860	ug/l	
75-34-3	1,1-Dichloroethane	ND	500	310	ug/l	
107-06-2	1,2-Dichloroethane	ND	500	320	ug/l	
75-35-4	1,1-Dichloroethene	ND	500	210	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	500	320	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	500	470	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:	P93A-ROX-012313-DUP		
Lab Sample ID:	MC17751-7	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1000	360	ug/l	
142-28-9	1,3-Dichloropropane	ND	2500	320	ug/l	
594-20-7	2,2-Dichloropropane	ND	2500	790	ug/l	
563-58-6	1,1-Dichloropropene	ND	2500	460	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	250	220	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	250	98	ug/l	
123-91-1	1,4-Dioxane	ND	13000	7400	ug/l	ب
97-63-2	Ethyl methacrylate	ND	2500	410	ug/l	
100-41-4	Ethylbenzene	ND	500	250	ug/l	
87-68-3	Hexachlorohutadiene	ND	2500	1000	ug/l	
591-78-6	2-Hexanone	ND	2500	980	ug/l	
98-82-8	Isopropylbenzene	ND	2500	250	ug/l	
99-87-6	p-Isopropyltoluene	ND	2500	290	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	500	210	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	2500	1500	ug/l	
74-95-3	Methylene bromide	ND	2500	550	ug/l	
75-09-2	Methylene chloride	ND	1000	420	ug/l	
91-20-3	Naphthalene	ND	2500	250	ug/l	
103-65-1	n-Propylhenzene	ND	2500	290	ug/l	
100-42-5	Styrene	ND	2500	230	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2500	290	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	300	ug/l	
127-18-4	Tetrachloroethene	ND	500	210	ug/l	
108-88-3	Toluene	ND	500	250	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2500	630	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2500	640	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	500	420	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	500	250	ug/l	
79-01-6	Trichloroethene	ND	500	390	ug/l	
75-69-4	Trichlorofluoromethane	ND	500	140	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2500	420	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2500	170	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2500	230	ug/l	
108-05-4	Vinyl Acetate	ND	2500	630	ug/l	ب
75-01-4	Vinyl chloride	ND	500	310	ug/l	
	m,p-Xylene	ND	500	370	ug/l	
95-47-6	o-Xylene	ND	500	290	ug/l	
1330-20-7	Xylene (total)	ND	500	290	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:	P93A-ROX-012313-DUP		
Lab Sample ID:	MC17751-7	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	91%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P93A-ROX-012313-DUP		
Lab Sample ID:	MC17751-7	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8866.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.73	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	165	5.2	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.75	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.68	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.5	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.35	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.99	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.83	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.79	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.92	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-bntyl phthalate	ND	5.2	0.56	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	1.3	ug/l	

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

Report of Analysis

Client Sample ID:	P93A-ROX-012313-DUP		
Lab Sample ID:	MC17751-7	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.52	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.2	0.21	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	11.0	2.1	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	1.6	ug/l	
78-59-1	Isophorone	ND	5.2	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.89	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.99	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	29%		15-110%
118-79-6	2,4,6-Tribromophenol	75%		15-110%
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	56%		30-130%
1718-51-0	Terphenyl-d14	48%		30-130%

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

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

Report of Analysis

Client Sample ID:	P93A-ROX-012313-DUP		
Lab Sample ID:	MC17751-7	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61359.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.14	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.039	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.075	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.034	ug/l	
86-73-7	Fluorene	0.19	0.10	0.048	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
90-12-0	1-Methylnaphthalene	9.4	0.21	0.14	ug/l	
91-57-6	2-Methylnaphthalene	9.0	0.21	0.054	ug/l	
85-01-8	Phenanthrene	0.23	0.052	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.037	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	32%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	78%		15-110%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

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:	P93A-ROX-012313-DUP		
Lab Sample ID:	MC17751-7	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78255.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0099	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	90%		36-173%
460-00-4	Bromofluorobenzene (S)	83%		36-173%

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

Report of Analysis

Client Sample ID:	TB-ROX-012313A-HCL		
Lab Sample ID:	MC17751-8	Date Sampled:	01/23/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53730.D	1	01/28/13	AMY	n/a	n/a	MSM1825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-012313A-HCL		
Lab Sample ID:	MC17751-8	**Date Sampled:**	01/23/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxaua, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-I8-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-012313A-HCL		
Lab Sample ID:	MC17751-8	**Date Sampled:**	01/23/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.0300I 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	83%		70-130%
460-00-4	4-Bromofluorobenzene	89%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-012313A-ST		
Lab Sample ID:	MC17751-9	Date Sampled:	01/23/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/24/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78256.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	35.3 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromoflnorobenzene (S)	111%		36-173%
460-00-4	Bromofluorobenzene (S)	105%		36-173%

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

Report of Analysis

Client Sample ID:	ROST3MW-ROX-012313		
Lab Sample ID:	MC17751-10	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53756.D	1	01/29/13	AMY	n/a	n/a	MSM1826
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ng/l	WJ
71-43-2	Benzene	5.1	0.50	0.24	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	2.8	5.0	0.61	ug/l	J
135-98-8	sec-Butylbenzene	1.3	5.0	0.55	ug/l	J
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	ROST3MW-ROX-012313		
Lab Sample ID:	MC17751-10	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Ceutral Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	UJ
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	29.6	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	6.6	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	1.1	5.0	0.57	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	7.6	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	15.6	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	1.6	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	78.6	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	22.0	5.0	0.47	ng/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	UJ
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	114	1.0	0.73	ug/l	
95-47-6	o-Xylene	15.9	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	130	1.0	0.58	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:	ROST3MW-ROX-012313		
Lab Sample ID:	MC17751-10	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	ROST3MW-ROX-012313		
Lab Sample ID:	MC17751-10	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8867.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ng/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	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:	ROST3MW-ROX-012313		
Lab Sample ID:	MC17751-10	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	22%		15-110%
4165-62-2	Phenol-d5	18%		15-110%
118-79-6	2,4,6-Tribromophenol	69%		15-110%
4165-60-0	Nitrobenzene-d5	56%		30-130%
321-60-8	2-Fluorobiphenyl	49%		30-130%
1718-51-0	Terphenyl-d14	45%		30-130%

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

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

Report of Analysis

Client Sample ID:	ROST3MW-ROX-012313		
Lab Sample ID:	MC17751-10	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61360.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.25	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.059	0.10	0.013	ug/l	J
120-12-7	Anthracene	0.074	0.10	0.018	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.31	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	6.1	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	8.7	0.20	0.052	ug/l	
85-01-8	Phenanthrene	0.68	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	23%		15-110%
4165-62-2	Phenol-d5	19%		15-110%
118-79-6	2,4,6-Tribromophenol	72%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	54%		30-130%

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:	ROST3MW-ROX-012313		
Lab Sample ID:	MC17751-10	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78257.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.7 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0099	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	74%		36-173%
460-00-4	Bromofluorobenzene (S)	75%		36-173%

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

Report of Analysis

Client Sample ID:	MW16-ROX-012313		
Lab Sample ID:	MC17751-11	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53757.D	1	01/29/13	AMY	n/a	n/a	MSM1826
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	UJ
71-43-2	Benzene	0.57	0.50	0.24	ug/l	J
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	2.9	5.0	2.4	ug/l	J
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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:	MW16-ROX-012313		
Lab Sample ID:	MC17751-11	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	uJ
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	uJ
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

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

Report of Analysis

Client Sample ID:	MW16-ROX-012313		
Lab Sample ID:	MCI7751-I1	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

ND = Not detected MDL - Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evideuce of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-012313		
Lab Sample ID:	MC17751-11	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8868.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.75	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.59	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.7	ug/l	
95-48-7	2-Methylphenol	ND	11	2.1	ug/l	
	3&4-Methylphenol	ND	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachloropheuol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	J
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.70	ug/l	
100-51-6	Benzyl Alcohol	ND	11	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.37	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.86	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.82	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.95	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.58	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	1.4	ug/l	

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

Report of Analysis

Client Sample ID:	MW16-ROX-012313		
Lab Sample ID:	MC17751-11	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.3	0.22	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.92	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	85%		15-110%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

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

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-012313		
Lab Sample ID:	MC17751-11	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61361.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ug/l	
218-01-9	Chrysene	ND	0.11	0.077	ng/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.049	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.085	0.21	0.055	ug/l	J
85-01-8	Phenanthrene	0.025	0.053	0.013	ug/l	J
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		15-110%
4165-62-2	Phenol-d5	37%		15-110%
118-79-6	2,4,6-Tribromophenol	86%		15-110%
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%
1718-51-0	Terphenyl-d14	66%		30-130%

ND = Not detected MDL - Method Detection Limit
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-012313		
Lab Sample ID:	MC17751-11	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78258.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	68%		36-173%
460-00-4	Bromofluorobenzene (S)	67%		36-173%

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

Report of Analysis

Client Sample ID:	MW22-ROX-012313		
Lab Sample ID:	MC17751-12	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53758.D	50	01/29/13	AMY	n/a	n/a	MSM1826
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	150	ug/l	
107-02-8	Acrolein	ND	1300	510	ug/l	
107-13-1	Acrylonitrile	ND	250	160	ug/l	U
71-43-2	Benzene	2120	25	12	ug/l	
108-86-1	Bromobenzene	ND	250	31	ug/l	
74-97-5	Bromochloromethane	ND	250	63	ug/l	
75-27-4	Bromodichloromethane	ND	50	29	ug/l	
75-25-2	Bromoform	ND	50	39	ug/l	
74-83-9	Bromomethane	ND	100	51	ug/l	
78-93-3	2-Butanone (MEK)	~~295~~ U	~~250~~ 295	120	ug/l	U
104-51-8	n-Butylbenzene	ND	250	30	ng/l	
135-98-8	sec-Butylbenzene	ND	250	28	ug/l	
98-06-6	tert-Butylbenzene	ND	250	32	ug/l	
75-15-0	Carbon disulfide	ND	250	31	ug/l	
56-23-5	Carbon tetrachloride	ND	50	43	ug/l	
108-90-7	Chlorobenzene	ND	50	23	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	25	ug/l	
74-87-3	Chloromethane	ND	100	37	ug/l	
95-49-8	o-Chlorotoluene	ND	250	32	ug/l	
106-43-4	p-Chlorotoluene	ND	250	24	ug/l	
124-48-1	Dibromochloromethane	ND	50	26	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	46	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	32	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	86	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	31	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	32	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	21	ng/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	32	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	47	ug/l	

ND = Not detected MDL - Method Detection Limit
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Report of Analysis

Client Sample ID:	MW22-ROX-012313		
Lab Sample ID:	MC17751-12	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	36	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	32	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	79	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	46	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	9.8	ug/l	
123-91-1	1,4-Dioxane	ND	1300	740	ug/l	UJ
97-63-2	Ethyl methacrylate	ND	250	41	ug/l	
100-41-4	Ethylbenzene	3450	50	25	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	100	ug/l	
591-78-6	2-Hexanone	ND	250	98	ug/l	
98-82-8	Isopropylbenzene	126	250	25	ug/l	J
99-87-6	p-Isopropyltoluene	ND	250	29	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	21	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	150	ug/l	
74-95-3	Methylene bromide	ND	250	55	ug/l	
75-09-2	Methylene chloride	ND	100	42	ug/l	
91-20-3	Naphthalene	396	250	25	ug/l	
103-65-1	n-Propylbenzene	220	250	29	ug/l	J
100-42-5	Styrene	ND	250	23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	29	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	30	ug/l	
127-18-4	Tetrachloroethene	ND	50	21	ug/l	
108-88-3	Toluene	10500	50	25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	63	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	64	ug/l	
71-55-6	1,1,1-Trichloroethaue	ND	50	42	ug/l	
79-00-5	1,1,2-Trichloroethaue	ND	50	25	ug/l	
79-01-6	Trichloroethene	ND	50	39	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	14	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	42	ug/l	
95-63-6	1,2,4-Trimethylbenzene	1230	250	17	ug/l	
108-67-8	1,3,5-Trimethylbenzene	288	250	23	ug/l	
108-05-4	Vinyl Acetate	ND	250	63	ug/l	
75-01-4	Vinyl chloride	ND	50	31	ug/l	UJ
	m,p-Xylene	7560	50	37	ug/l	
95-47-6	o-Xylene	3730	50	29	ug/l	
1330-20-7	Xylene (total)	11300	50	29	ug/l	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-012313		
Lab Sample ID:	MC17751-12	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW22-ROX-012313		
Lab Sample ID:	MC17751-12	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8869.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.74	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.1	ug/l	
105-67-9	2,4-Dimethylpbenol	14.6	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	18.0	10	2.1	ug/l	
	3&4-Methylphenol	32.2	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.56	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	11.1	5.2	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.9	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	u J
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.76	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.69	ug/l	
100-51-6	Benzyl Alcohol	3.1	10	1.8	ug/l	J
91-58-7	2-Chloronaphthalene	ND	5.2	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.5	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.84	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.80	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.93	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	2.4	5.2	0.57	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.2	1.3	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:	MW22-ROX-012313		
Lab Sample ID:	MC17751-12	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.52	ug/l	UJ
131-11-3	Dimethyl phthalate	ND	5.2	0.21	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	1.7	ug/l	
78-59-1	Isophorone	ND	5.2	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.90	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	18%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	87%		15-110%
4165-60-0	Nitrobeuzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	60%		30-130%
1718-51-0	Terphenyl-d14	48%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW22-ROX-012313		
Lab Sample ID:	MC17751-12	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61362.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.18	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	0.020	0.10	0.018	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.052	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.039	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.061	ug/l	
218-01-9	Chrysene	ND	0.10	0.076	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.034	ug/l	
86-73-7	Fluorene	0.18	0.10	0.048	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.048	ug/l	
90-12-0	1-Methylnaphthalene	27.6	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	50.0	0.21	0.054	ug/l	
85-01-8	Phenanthrene	0.19	0.052	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.037	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%		15-110%
4165-62-2	Phenol-d5	35%		15-110%
118-79-6	2,4,6-Tribromophenol	85%		15-110%
4165-60-0	Nitrobenzene-d5	76%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	55%		30-130%

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:	MW22-ROX-012313		
Lab Sample ID:	MC17751-12	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78259.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	35.8 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	79%		36-173%
460-00-4	Bromofluorobenzene (S)	74%		36-173%

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

Report of Analysis

Client Sample ID:	MW22-ROX-012313-DUP		
Lab Sample ID:	MC17751-13	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53759.D	50	01/29/13	AMY	n/a	n/a	MSM1826
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	150	ug/l	
107-02-8	Acrolein	ND	1300	510	ug/l	
107-13-1	Acrylonitrile	ND	250	160	ug/l	U5
71-43-2	Benzene	2090	25	12	ug/l	
108-86-1	Bromobenzene	ND	250	31	ug/l	
74-97-5	Bromochloromethane	ND	250	63	ug/l	
75-27-4	Bromodichloromethane	ND	50	29	ug/l	
75-25-2	Bromoform	ND	50	39	ug/l	
74-83-9	Bromomethane	ND	100	51	ug/l	
78-93-3	2-Butanone (MEK)	~~310~~ U	~~250~~ 310	120	ug/l	U
104-51-8	n-Butylbenzene	ND	250	30	ug/l	
135-98-8	sec-Butylbenzene	ND	250	28	ug/l	
98-06-6	tert-Butylbenzene	ND	250	32	ug/l	
75-15-0	Carbon disulfide	ND	250	31	ug/l	
56-23-5	Carbon tetrachloride	ND	50	43	ug/l	
108-90-7	Chlorobenzene	ND	50	23	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	25	ug/l	
74-87-3	Chloromethane	ND	100	37	ug/l	
95-49-8	o-Chlorotoluene	ND	250	32	ug/l	
106-43-4	p-Chlorotoluene	ND	250	24	ug/l	
124-48-1	Dibromochloromethane	ND	50	26	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	46	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	32	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	86	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	31	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	32	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	21	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	32	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	47	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:	MW22-ROX-012313-DUP		
Lab Sample ID:	MC17751-13	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	36	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	32	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	79	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	46	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	9.8	ug/l	
123-91-1	1,4-Dioxane	ND	1300	740	ug/l	u5
97-63-2	Ethyl methacrylate	ND	250	41	ug/l	
100-41-4	Ethylbenzene	3190	50	25	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	100	ug/l	
591-78-6	2-Hexanone	ND	250	98	ug/l	
98-82-8	Isopropylbenzene	124	250	25	ng/l	J
99-87-6	p-Isopropyltoluene	ND	250	29	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	21	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	150	ug/l	
74-95-3	Methylene bromide	ND	250	55	ug/l	
75-09-2	Methylene chloride	ND	100	42	ug/l	
91-20-3	Naphthalene	377	250	25	ug/l	
103-65-1	n-Propylbenzene	234	250	29	ug/l	J
100-42-5	Styrene	ND	250	23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	29	ng/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	30	ug/l	
127-18-4	Tetrachloroethene	ND	50	21	ug/l	
108-88-3	Tolnene	9060	50	25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	63	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	64	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	25	ng/l	
79-01-6	Trichloroethene	ND	50	39	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	14	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	42	ug/l	
95-63-6	1,2,4-Trimethylbenzeue	1260	250	17	ug/l	
108-67-8	1,3,5-Trimethylbenzene	291	250	23	ug/l	
108-05-4	Vinyl Acetate	ND	250	63	ug/l	u5
75-01-4	Vinyl chloride	ND	50	31	ug/l	
	m,p-Xylene	6960	50	37	ug/l	
95-47-6	o-Xylene	3520	50	29	ug/l	
1330-20-7	Xylene (total)	10500	50	29	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:	MW22-ROX-012313-DUP		
Lab Sample ID:	MC17751-13	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	106%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW22-ROX-012313-DUP		
Lab Sample ID:	MC17751-13	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W8870.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	11	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.3	0.74	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.58	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	14.9	11	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	2.6	ug/l	
95-48-7	2-Methylphenol	18.7	11	2.1	ug/l	
	3&4-Methylphenol	34.9	11	1.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.7	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	12.2	5.3	1.1	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	1.9	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.77	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.69	ug/l	
100-51-6	Benzyl Alcohol	3.3	11	1.9	ug/l	J
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	3.6	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.36	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.40	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.85	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.81	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.94	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	2.4	5.3	0.58	ug/l	J
117-84-0	Di-n-octyl phtbalate	ND	5.3	1.4	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:	MW22-ROX-012313-DUP		
Lab Sample ID:	MC17751-13	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.3	0.53	ug/l	uJ
131-11-3	Dimethyl phthalate	ND	5.3	0.21	ug/l	uJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.56	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	1.3	ug/l	uJ
67-72-1	Hexachloroethane	ND	5.3	1.7	ug/l	
78-59-1	Isophorone	ND	5.3	0.53	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.91	ug/l	
99-09-2	3-Nitroaniline	ND	11	2.3	ug/l	
100-01-6	4-Nitroaniline	ND	11	1.2	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.53	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	1.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	1.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	1.3	ug/l	
110-86-1	Pyridine	ND	11	0.53	ug/l	uJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	19%		15-110%
4165-62-2	Phenol-d5	36%		15-110%
118-79-6	2,4,6-Tribromophenol	92%		15-110%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	48%		30-130%

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

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

Report of Analysis

Client Sample ID:	MW22-ROX-012313-DUP		
Lab Sample ID:	MC17751-13	**Date Sampled:**	01/23/13
Matrix:	AQ - Ground Water	**Date Received:**	01/24/13
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F61363.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.18	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.053	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.053	0.025	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.040	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.062	ug/l	
218-01-9	Chrysene	ND	0.11	0.077	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.044	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.034	ug/l	
86-73-7	Fluorene	0.18	0.11	0.049	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.048	ug/l	
90-12-0	1-Methylnaphthalene	28.0	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	50.1	0.21	0.055	ug/l	
85-01-8	Phenanthrene	0.20	0.053	0.013	ug/l	
129-00-0	Pyrene	ND	0.11	0.037	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	54%		15-110%
4165-62-2	Phenol-d5	38%		15-110%
118-79-6	2,4,6-Tribromophenol	91%		15-110%
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	57%		30-130%

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:	MW22-ROX-012313-DUP		
Lab Sample ID:	MC17751-13	Date Sampled:	01/23/13
Matrix:	AQ - Ground Water	Date Received:	01/24/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78260.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	89%		36-173%
460-00-4	Bromofluorobenzene (S)	84%		36-173%

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

Report of Analysis

Client Sample ID:	TB-ROX-012313-HCL		
Lab Sample ID:	MC17751-14	Date Sampled:	01/23/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/24/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M53731.D	1	01/28/13	AMY	n/a	n/a	MSM1825
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ng/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-012313-HCL		
Lab Sample ID:	MC17751-14	**Date Sampled:**	01/23/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroetheue	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ng/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylhenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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 iu associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-012313-HCL		
Lab Sample ID:	MC17751-14	**Date Sampled:**	01/23/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/24/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-012313-ST		
Lab Sample ID:	MC17751-15	**Date Sampled:**	01/23/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	01/24/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78261.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	35.9 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	103%		36-173%
460-00-4	Bromofluorobenzene (S)	95%		36-173%

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

New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (Accutest Labs: 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☑ other (Accutest Labs: 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ SPL (Lab Vendor # _____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SC&DM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Dave Palmer
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 1/23/13
PAGE: 1 of 2

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300; ST. LOUIS, MO 63110
PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462
SITE ADDRESS, Street and City: 900 South Central Ave, ROXANA
State: IL
GLOBAL ID NO.:
"C/P" DELIVERABLE TO (Name, Company, Office Location): PHONE NO.: E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21662650.03001
SAMPLER NAME(S) (Print): L. Rathnow, R. Sherman
LAB USE ONLY: MC17751

TURNAROUND TIME (CALENDAR DAYS)
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3
SPECIAL INSTRUCTIONS OR NOTES:
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	No. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	FIELD NOTES: Container PID Readings or Laboratory Notes
-1	MW13-BOX-012313	1/23/13	10:00	water	2			2	2	6	X	X	X	X	0	TEMPERATURE ON RECEIPT C°
-2	MW13-BOX-012313-EB		10:15								X	X	X	X		
-3	MW14-BOX-012313		11:50								X	X	X	X		
-4	MW15-BOX-012313		13:55								X	X	X	X		
-5	MW16-BOX-012313		14:30								X	X	X	X		
-6	MW17-BOX-012313		15:30								X	X	X	X		16B
-7	MW17-BOX-012313 Dup		15:30					↓	↓	↓	X	X	X	X		2K3, 2K2
-8	TB-BOX-012313A-HCL		00:00		↓					2	X					
-9	TB-BOX-012313B-ST	↓	00:00	↓					2	2		X			↓	
																0.7°, 0.9°, 1.1°

	Received by (Signature)	Date	Time
Relinquished by (Signature): Sandra Rathnow	FED EX	1/23/13	
Relinquished by (Signature): Fedex		1/24/13	9:00
Relinquished by (Signature)			

05/2008 Revision

MC17751: Chain of Custody
Page 1 of 3

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Laboratories Technology Ctr W (Marlborough, MA 01752 (508-481-6200))
☐ SPL (Lab Vendor # (_____))
Lab Vendor #

Shell Oil Products Chain Of Custody Record

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #

INCIDENT # (ENV SERVICES): 0 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1

☐ CHECK IF NO INCIDENT # APPLIES
DATE 1/23/13
PAGE 2 of 2

SAMPLING COMPANY: URS CORPORATION
LOG CODE:
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300 ST. LOUIS, MO 63110
PROJECT CONTACT (hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462 E-MAIL:

SITE ADDRESS: (Street and City): 900 South Central Ave, ROXANA
STATE: IL
GLOBAL ID NO:
EDF DELIVERABLE TO (Name, Company, Office Location): PHONE NO: E-MAIL:
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21662860.03001
SAMPLER NAME(S) (Print): Jansen, Kretzer
LAB USE ONLY: MC17751

TURNAROUND TIME (CALENDAR DAYS)
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
☒ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)
-10	ROST 3 MW-ROX-012313	1/23	1100	Water	2			2	2	6	X	X	X	X	
-11	MW16-ROX-012313		1235	water	2			2	2	6	X	X	X	X	
-12	MW22-ROX-012313		1515	water	2			2	2	6	X	X	X	X	
-13	MW22-ROX-012313-DUP		1515	water	2			2	2	6	X	X	X	X	
-14	TB-ROX-012313-HCL		00:00	water	2				2	2	X				
-15	TB-ROX-012313-~~HCL~~ SG		00:00	water					2	2		X			

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container PID Readings or Laboratory Notes

Relinquished by (Signature): Justin Jansen 1/23/13
Received by (Signature): FEDEX
Date: 1/23/13 Time:

Relinquished by (Signature): Fedex
Received by (Signature):
Date: 1/24/13 Time: 9:00

Relinquished by (Signature):
Received by (Signature):
Date: Time:

05/2006 Revision

MC17751: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17751 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/24/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SOUTH CENTRAL AVE No. Coolers: 3 Airbill #'s:

Cooler Security	Y or N		Y or N
1 Custody Seals Present	☑ ☐	3 COC Present	☑ ☐
2 Custody Seals Intact	☑ ☐	4 Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1 Temp criteria achieved	☑ ☐
2. Cooler temp verification	Infared gun
3. Cooler media	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1 Trip Blank present / cooler	☑ ☐	☐
2. Trip Blank listed on COC	☑ ☐	☐
3 Samples preserved properly	☑ ☐	
4 VOCs headspace free	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles	☑ ☐
2. Container labeling complete.	☑ ☐
3 Sample container label / COC agree	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT	☑ ☐
2. All containers accounted for	☑ ☐
3 Condition of sample.	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear	☑ ☐	
2 Bottles received for unspecified tests	☐ ☑	
3 Sufficient volume recvd for analysis	☑ ☐	
4 Compositing instructions clear	☐ ☐	☑
5. Filtering instructions clear.	☐ ☐	☑

Comments

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5.1

5

MC17751: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17751

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

5.2

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17751-1 Collected: 23-JAN-13 10:00 By: LRRS Received: 24-JAN-13 By: MW13-ROX-012313						
MC17751-1	SW846 8270C	25-JAN-13 19:16	KR	25-JAN-13	AJ	AB8270SL+
MC17751-1	SW846 8270C BY SIM	25-JAN-13 19:57	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-1	SW846 8260B	28-JAN-13 16:52	AMY			V8260SL+
MC17751-1	SW846 8011	06-FEB-13 06:59	AP	01-FEB-13	BJ	V8011SL
MC17751-2 Collected: 23-JAN-13 10:15 By: LRRS Received: 24-JAN-13 By: MW13-ROX-012313-EB						
MC17751-2	SW846 8270C	25-JAN-13 19:39	KR	25-JAN-13	AJ	AB8270SL+
MC17751-2	SW846 8270C BY SIM	25-JAN-13 20:20	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-2	SW846 8260B	28-JAN-13 16:24	AMY			V8260SL+
MC17751-2	SW846 8011	06-FEB-13 07:26	AP	01-FEB-13	BJ	V8011SL
MC17751-3 Collected: 23-JAN-13 11:50 By: LRRS Received: 24-JAN-13 By: P114-ROX-012313						
MC17751-3	SW846 8270C	25-JAN-13 20:03	KR	25-JAN-13	AJ	AB8270SL+
MC17751-3	SW846 8270C BY SIM	25-JAN-13 20:43	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-3	SW846 8260B	28-JAN-13 17:20	AMY			V8260SL+
MC17751-3	SW846 8260B	29-JAN-13 16:50	AMY			V8260SL+
MC17751-3	SW846 8011	06-FEB-13 07:54	AP	01-FEB-13	BJ	V8011SL
MC17751-4 Collected: 23-JAN-13 13:50 By: LRRS Received: 24-JAN-13 By: P93C-ROX-012313						
MC17751-4	SW846 8270C	25-JAN-13 20:27	KR	25-JAN-13	AJ	AB8270SL+
MC17751-4	SW846 8270C BY SIM	25-JAN-13 21:05	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-4	SW846 8260B	28-JAN-13 17:47	AMY			V8260SL+
MC17751-4	SW846 8011	06-FEB-13 08:21	AP	01-FEB-13	BJ	V8011SL
MC17751-5 Collected: 23-JAN-13 14:30 By: LRRS Received: 24-JAN-13 By: P93B-ROX-012313						
MC17751-5	SW846 8270C	25-JAN-13 20:50	KR	25-JAN-13	AJ	AB8270SL+
MC17751-5	SW846 8270C BY SIM	25-JAN-13 21:28	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-5	SW846 8270C	28-JAN-13 17:52	KR	25-JAN-13	AJ	AB8270SL+
MC17751-5	SW846 8260B	28-JAN-13 18:15	AMY			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17751

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17751-5	SW846 8260B	29-JAN-13 16:21	AMY			V8260SL+
MC17751-5	SW846 8011	06-FEB-13 08:48	AP	01-FEB-13	BJ	V8011SL
MC17751-6 Collected: 23-JAN-13 15:30 By: LRRS Received: 24-JAN-13 By: P93A-ROX-012313						
MC17751-6	SW846 8270C	25-JAN-13 21:14	KR	25-JAN-13	AJ	AB8270SL+
MC17751-6	SW846 8270C BY SIM	25-JAN-13 21:51	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-6	SW846 8270C	28-JAN-13 18:16	KR	25-JAN-13	AJ	AB8270SL+
MC17751-6	SW846 8260B	28-JAN-13 18:42	AMY			V8260SL+
MC17751-6	SW846 8011	06-FEB-13 09:42	AP	01-FEB-13	BJ	V8011SL
MC17751-7 Collected: 23-JAN-13 15:30 By: LRRS Received: 24-JAN-13 By: P93A-ROX-012313-DUP						
MC17751-7	SW846 8270C	25-JAN-13 21:38	KR	25-JAN-13	AJ	AB8270SL+
MC17751-7	SW846 8270C BY SIM	25-JAN-13 22:13	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-7	SW846 8260B	28-JAN-13 19:09	AMY			V8260SL+
MC17751-7	SW846 8011	06-FEB-13 10:09	AP	01-FEB-13	BJ	V8011SL
MC17751-8 Collected: 23-JAN-13 00:00 By: LRRS Received: 24-JAN-13 By: TB-ROX-012313A-HCL						
MC17751-8	SW846 8260B	28-JAN-13 15:28	AMY			V8260SL+
MC17751-9 Collected: 23-JAN-13 00:00 By: LRRS Received: 24-JAN-13 By: TB-ROX-012313A-ST						
MC17751-9	SW846 8011	06-FEB-13 10:36	AP	01-FEB-13	BJ	V8011SL
MC17751-10 Collected: 23-JAN-13 11:00 By: LRRS Received: 24-JAN-13 By: ROST3MW-ROX-012313						
MC17751-10	SW846 8270C	25-JAN-13 22:01	KR	25-JAN-13	AJ	AB8270SL+
MC17751-10	SW846 8270C BY SIM	25-JAN-13 22:36	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-10	SW846 8260B	29-JAN-13 13:35	AMY			V8260SL+
MC17751-10	SW846 8011	06-FEB-13 11:03	AP	01-FEB-13	BJ	V8011SL

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17751

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

5.2

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17751-11	Collected: 23-JAN-13 12:35 By: LRRS		Received: 24-JAN-13 By:			
MW16-ROX-012313						
MC17751-11	SW846 8270C	25-JAN-13 22:25	KR	25-JAN-13	AJ	AB8270SL+
MC17751-11	SW846 8270C BY SIM	25-JAN-13 22:59	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-11	SW846 8260B	29-JAN-13 14:03	AMY			V8260SL+
MC17751-11	SW846 8011	06-FEB-13 11:30	AP	01-FEB-13	BJ	V8011SL
MC17751-12	Collected: 23-JAN-13 15:15 By: LRRS		Received: 24-JAN-13 By:			
MW22-ROX-012313						
MC17751-12	SW846 8270C	25-JAN-13 22:48	KR	25-JAN-13	AJ	AB8270SL+
MC17751-12	SW846 8270C BY SIM	25-JAN-13 23:21	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-12	SW846 8260B	29-JAN-13 14:31	AMY			V8260SL+
MC17751-12	SW846 8011	06-FEB-13 11:57	AP	01-FEB-13	BJ	V8011SL
MC17751-13	Collected: 23-JAN-13 15:15 By: LRRS		Received: 24-JAN-13 By:			
MW22-ROX-012313-DUP						
MC17751-13	SW846 8270C	25-JAN-13 23:12	KR	25-JAN-13	AJ	AB8270SL+
MC17751-13	SW846 8270C BY SIM	25-JAN-13 23:44	KR	25-JAN-13	AJ	B8270SIMSL
MC17751-13	SW846 8260B	29-JAN-13 14:58	AMY			V8260SL+
MC17751-13	SW846 8011	06-FEB-13 12:24	AP	01-FEB-13	BJ	V8011SL
MC17751-14	Collected: 23-JAN-13 00:00 By: LRRS		Received: 24-JAN-13 By:			
TB-ROX-012313-HCL						
MC17751-14	SW846 8260B	28-JAN-13 15:56	AMY			V8260SL+
MC17751-15	Collected: 23-JAN-13 00:00 By: LRRS		Received: 24-JAN-13 By:			
TB-ROX-012313-ST						
MC17751-15	SW846 8011	06-FEB-13 12:51	AP	01-FEB-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/24/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17751-1.2	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-1.2	Michael Rolo		02/04/13 07:16	Depleted
MC17751-1.4	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-1.4	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-1.4	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-1.4	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-1.6	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-1.6	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-2.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-2.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-2.3	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-2.3	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-2.3	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-2.3	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-2.6	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-2.6	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-3.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-3.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-3.3	VOC Ref #2	Amy Min Yang	01/29/13 15:21	Retrieve from Storage
MC17751-3.3	Amy Min Yang	GCMSM	01/29/13 15:21	Load on Instrument
MC17751-3.3	GCMSM	Amy Min Yang	01/30/13 12:00	Unload from Instrument
MC17751-3.3	Amy Min Yang	VOC Ref #2	01/30/13 12:00	Return to Storage
MC17751-3.4	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-3.4	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-3.4	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-3.4	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-3.6	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-3.6	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-4.2	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-4.2	Michael Rolo		02/04/13 07:16	Depleted
MC17751-4.3	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-4.3	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-4.3	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument

5.3

Accutest Internal Chain of Custody

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/24/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17751-4.3	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-4.5	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-4.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-5.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-5.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-5.3	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-5.3	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-5.3	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-5.3	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-5.4	VOC Ref #2	Amy Min Yang	01/29/13 13:01	Retrieve from Storage
MC17751-5.4	Amy Min Yang	GCMSM	01/29/13 13:01	Load on Instrument
MC17751-5.4	GCMSM	Amy Min Yang	01/30/13 12:00	Unload from Instrument
MC17751-5.4	Amy Min Yang	VOC Ref #2	01/30/13 12:00	Return to Storage
MC17751-5.5	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-5.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-6.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-6.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-6.3	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-6.3	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-6.3	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-6.3	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-6.5	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-6.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-7.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-7.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-7.3	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-7.3	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-7.3	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-7.3	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-7.6	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-7.6	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-8.2	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/24/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17751-8.2	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-8.2	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-8.2	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-9.1	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-9.1	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-10.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-10.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-10.3	VOC Ref #2	Amy Min Yang	01/29/13 13:01	Retrieve from Storage
MC17751-10.3	Amy Min Yang	GCMSM	01/29/13 13:01	Load on Instrument
MC17751-10.3	GCMSM	Amy Min Yang	01/30/13 12:00	Unload from Instrument
MC17751-10.3	Amy Min Yang	VOC Ref #2	01/30/13 12:00	Return to Storage
MC17751-10.4	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-10.4	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-10.4	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-10.4	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-10.6	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-10.6	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-11.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-11.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-11.3	VOC Ref #2	Amy Min Yang	01/29/13 13:01	Retrieve from Storage
MC17751-11.3	Amy Min Yang	GCMSM	01/29/13 13:01	Load on Instrument
MC17751-11.3	GCMSM	Amy Min Yang	01/30/13 12:00	Unload from Instrument
MC17751-11.3	Amy Min Yang	VOC Ref #2	01/30/13 12:00	Return to Storage
MC17751-11.4	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-11.4	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-11.4	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-11.4	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-11.5	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-11.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-12.2	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-12.2	Michael Rolo		02/04/13 07:16	Depleted
MC17751-12.3	VOC Ref #2	Amy Min Yang	01/29/13 13:01	Retrieve from Storage
MC17751-12.3	Amy Min Yang	GCMSM	01/29/13 13:01	Load on Instrument

5.3

Accutest Internal Chain of Custody

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/24/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17751-12.3	GCMSM	Amy Min Yang	01/30/13 12:00	Unload from Instrument
MC17751-12.3	Amy Min Yang	VOC Ref #2	01/30/13 12:00	Return to Storage
MC17751-12.4	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-12.4	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-12.4	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-12.4	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-12.5	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-12.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-13.1	Walk In Ref #22	Michael Rolo	01/25/13 07:16	Retrieve from Storage
MC17751-13.1	Michael Rolo		02/04/13 07:16	Depleted
MC17751-13.3	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-13.3	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-13.3	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-13.3	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-13.4	VOC Ref #2	Amy Min Yang	01/29/13 13:01	Retrieve from Storage
MC17751-13.4	Amy Min Yang	GCMSM	01/29/13 13:01	Load on Instrument
MC17751-13.4	GCMSM	Amy Min Yang	01/30/13 12:00	Unload from Instrument
MC17751-13.4	Amy Min Yang	VOC Ref #2	01/30/13 12:00	Return to Storage
MC17751-13.6	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-13.6	Bijan Jafari		02/02/13 13:41	Depleted
MC17751-14.1	VOC Ref #2	Amy Min Yang	01/28/13 13:10	Retrieve from Storage
MC17751-14.1	Amy Min Yang	GCMSM	01/28/13 13:10	Load on Instrument
MC17751-14.1	GCMSM	Amy Min Yang	01/29/13 13:15	Unload from Instrument
MC17751-14.1	Amy Min Yang	VOC Ref #2	01/29/13 13:15	Return to Storage
MC17751-15.2	VOC Ref #2	Bijan Jafari	02/01/13 14:33	Retrieve from Storage
MC17751-15.2	Bijan Jafari		02/02/13 13:41	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-MB	M53719.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	I,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-MB	M53719.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorohenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorohenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-MB	M53719.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1826-MB	M53749.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethaue	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorohenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1826-MB	M53749.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ng/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorohenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1826-MB	M53749.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-BS	M53717.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	96.0	192* a	70-130
107-02-8	Acrolein	250	144	58* a	70-130
107-13-1	Acrylonitrile	50	65.0	130	70-130
71-43-2	Benzene	50	49.3	99	70-130
108-86-1	Bromobenzene	50	45.4	91	70-130
74-97-5	Bromochloromethane	50	59.1	118	70-130
75-27-4	Bromodichloromethane	50	58.2	116	70-130
75-25-2	Bromoform	50	46.9	94	70-130
74-83-9	Bromomethane	50	52.9	106	70-130
78-93-3	2-Butanone (MEK)	50	56.7	113	70-130
104-51-8	n-Butylbenzene	50	45.5	91	70-130
135-98-8	sec-Butylbenzene	50	51.6	103	70-130
98-06-6	tert-Butylbenzene	50	50.2	100	70-130
75-15-0	Carbon disulfide	50	59.3	119	70-130
56-23-5	Carbon tetrachloride	50	51.0	102	70-130
108-90-7	Chlorobenzene	50	53.5	107	70-130
75-00-3	Chloroethane	50	52.4	105	70-130
110-75-8	2-Chloroethyl vinyl ether	50	42.4	85	70-130
67-66-3	Chloroform	50	53.4	107	70-130
74-87-3	Chloromethane	50	51.5	103	70-130
95-49-8	o-Chlorotoluene	50	49.4	99	70-130
106-43-4	p-Chlorotoluene	50	49.8	100	70-130
124-48-1	Dibromochloromethane	50	51.2	102	70-130
95-50-1	1,2-Dichlorobenzene	50	49.0	98	70-130
541-73-1	1,3-Dichlorobenzene	50	48.9	98	70-130
106-46-7	1,4-Dichlorobenzene	50	43.6	87	70-130
75-71-8	Dichlorodifluoromethane	50	35.0	70	70-130
75-34-3	1,1-Dichloroethane	50	53.8	108	70-130
107-06-2	1,2-Dichloroethane	50	55.3	111	70-130
75-35-4	1,1-Dichloroethene	50	59.4	119	70-130
156-59-2	cis-1,2-Dichloroethene	50	53.9	108	70-130
156-60-5	trans-1,2-Dichloroethene	50	55.9	112	70-130
78-87-5	1,2-Dichloropropane	50	61.7	123	70-130
142-28-9	1,3-Dichloropropane	50	56.3	113	70-130
594-20-7	2,2-Dichloropropane	50	59.8	120	70-130
563-58-6	1,1-Dichloropropene	50	59.2	118	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-BS	M53717.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	62.5	125	70-130
10061-02-6	trans-1,3-Dichloropropene	50	69.7	139* [b]	70-130
123-91-1	1,4-Dioxane	250	342	137* [a]	70-130
97-63-2	Ethyl methacrylate	50	71.6	143* [b]	77-137
100-41-4	Ethylbenzene	50	48.0	96	70-130
87-68-3	Hexachlorobutadiene	50	39.8	80	70-130
591-78-6	2-Hexanone	50	88.2	176* [b]	70-130
98-82-8	Isopropylbenzene	50	54.1	108	70-130
99-87-6	p-Isopropyltoluene	50	48.4	97	70-130
1634-04-4	Methyl Tert Butyl Ether	50	59.5	119	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	80.3	161* [b]	70-130
74-95-3	Methylene bromide	50	59.3	119	70-130
75-09-2	Methylene chloride	50	57.1	114	70-130
91-20-3	Naphthalene	50	48.2	96	70-130
103-65-1	n-Propylbenzene	50	52.5	105	70-130
100-42-5	Styrene	50	51.6	103	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	47.3	95	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	41.0	82	70-130
127-18-4	Tetrachloroethene	50	50.6	101	70-130
108-88-3	Toluene	50	61.7	123	70-130
87-61-6	1,2,3-Trichlorobenzene	50	43.6	87	70-130
120-82-1	1,2,4-Trichlorobenzene	50	44.3	89	70-130
71-55-6	1,1,1-Trichloroethane	50	56.9	114	70-130
79-00-5	1,1,2-Trichloroethane	50	56.7	113	70-130
79-01-6	Trichloroethene	50	55.4	111	70-130
75-69-4	Trichlorofluoromethane	50	64.1	128	70-130
96-18-4	1,2,3-Trichloropropane	50	43.8	88	70-130
95-63-6	1,2,4-Trimethylbenzene	50	47.0	94	70-130
108-67-8	1,3,5-Trimethylbenzene	50	47.4	95	70-130
108-05-4	Vinyl Acetate	50	65.4	131* [a]	70-130
75-01-4	Vinyl chloride	50	54.2	108	70-130
	m,p-Xylene	100	109	109	70-130
95-47-6	o-Xylene	50	57.2	114	70-130
1330-20-7	Xylene (total)	150	166	111	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1825-BS	M53717.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1826-BS	M53747.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	67.0	134* a	70-130
107-02-8	Acrolein	250	206	82	70-130
107-13-1	Acrylonitrile	50	78.1	156* b	70-130
71-43-2	Benzene	50	48.9	98	70-130
108-86-1	Bromobenzene	50	44.6	89	70-130
74-97-5	Bromochloromethane	50	58.9	118	70-130
75-27-4	Bromodichloromethane	50	53.7	107	70-130
75-25-2	Bromoform	50	43.9	88	70-130
74-83-9	Bromomethane	50	53.7	107	70-130
78-93-3	2-Butanone (MEK)	50	59.7	119	70-130
104-51-8	n-Butylbenzeue	50	46.8	94	70-130
135-98-8	sec-Butylbenzene	50	48.5	97	70-130
98-06-6	tert-Butylbenzene	50	47.3	95	70-130
75-15-0	Carbon disulfide	50	54.2	108	70-130
56-23-5	Carbon tetrachloride	50	49.8	100	70-130
108-90-7	Chlorobenzene	50	49.5	99	70-130
75-00-3	Chloroethane	50	49.9	100	70-130
110-75-8	2-Chloroethyl vinyl ether	50	45.2	90	70-130
67-66-3	Chloroform	50	54.1	108	70-130
74-87-3	Chloromethane	50	65.8	132* a	70-130
95-49-8	o-Chlorotoluene	50	47.8	96	70-130
106-43-4	p-Chlorotoluene	50	47.9	96	70-130
124-48-1	Dibromochloromethane	50	45.1	90	70-130
95-50-1	1,2-Dichlorobenzene	50	47.8	96	70-130
541-73-1	1,3-Dichlorobenzene	50	46.8	94	70-130
106-46-7	1,4-Dichlorobenzene	50	42.0	84	70-130
75-71-8	Dichlorodifluoromethane	50	35.8	72	70-130
75-34-3	1,1-Dichloroethane	50	58.9	118	70-130
107-06-2	1,2-Dichloroethane	50	58.9	118	70-130
75-35-4	1,1-Dichloroethene	50	59.7	119	70-130
156-59-2	cis-1,2-Dichloroethene	50	56.7	113	70-130
156-60-5	trans-1,2-Dichloroethene	50	57.0	114	70-130
78-87-5	1,2-Dichloropropane	50	56.5	113	70-130
142-28-9	1,3-Dichloropropane	50	42.7	85	70-130
594-20-7	2,2-Dichloropropane	50	57.1	114	70-130
563-58-6	1,1-Dichloropropene	50	57.2	114	70-130

* = Outside of Control Limits.

6.2.2

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1826-BS	M53747.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	56.8	114	70-130
10061-02-6	trans-1,3-Dichloropropene	50	63.1	126	70-130
123-91-1	1,4-Dioxane	250	305	122	70-130
97-63-2	Ethyl methacrylate	50	62.1	124	77-137
100-41-4	Ethylbenzene	50	45.8	92	70-130
87-68-3	Hexachlorobutadiene	50	36.8	74	70-130
591-78-6	2-Hexanone	50	69.3	139* a	70-130
98-82-8	Isopropylbenzene	50	51.8	104	70-130
99-87-6	p-Isopropyltoluene	50	45.1	90	70-130
1634-04-4	Methyl Tert Butyl Ether	50	65.1	130	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	70.9	142* b	70-130
74-95-3	Methylene bromide	50	57.2	114	70-130
75-09-2	Methylene chloride	50	57.7	115	70-130
91-20-3	Naphthalene	50	54.0	108	70-130
103-65-1	n-Propylbenzene	50	49.6	99	70-130
100-42-5	Styrene	50	44.9	90	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	43.6	87	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	42.3	85	70-130
127-18-4	Tetrachloroethene	50	42.1	84	70-130
108-88-3	Toluene	50	53.7	107	70-130
87-61-6	1,2,3-Trichlorobenzene	50	44.4	89	70-130
120-82-1	1,2,4-Trichlorobenzene	50	43.5	87	70-130
71-55-6	1,1,1-Trichloroethane	50	56.9	114	70-130
79-00-5	1,1,2-Trichloroethane	50	51.4	103	70-130
79-01-6	Trichloroethene	50	51.3	103	70-130
75-69-4	Trichlorofluoromethane	50	62.7	125	70-130
96-18-4	1,2,3-Trichloropropane	50	48.0	96	70-130
95-63-6	1,2,4-Trimethylbenzene	50	45.3	91	70-130
108-67-8	1,3,5-Trimethylbenzene	50	45.5	91	70-130
108-05-4	Vinyl Acetate	50	76.4	153* b	70-130
75-01-4	Vinyl chloride	50	52.1	104	70-130
	m,p-Xylene	100	98.2	98	70-130
95-47-6	o-Xylene	50	48.6	97	70-130
1330-20-7	Xylene (total)	150	147	98	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1826-BS	M53747.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC1775I-11, MC17751-12, MC17751-13

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	94%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

(a) Ontside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

* = Ontside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MCI7746-1MS	M53726.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1MSD	M53727.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1	M53720.D	1	01/28/13	AMY	n/a	n/a	MSM1825

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Compound	MC17746-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	212	85	216	86	2	70-130/30
107-02-8	Acrolein	ND		1250	1460	117	1600	128	9	70-130/30
107-13-1	Acrylonitrile	ND		250	313	125	293	117	7	70-130/30
71-43-2	Benzene	ND		250	252	101	252	101	0	70-130/30
108-86-1	Bromobenzene	ND		250	221	88	231	92	4	70-130/30
74-97-5	Bromochloromethane	ND		250	297	119	310	124	4	70-130/30
75-27-4	Bromodichloromethane	ND		250	254	102	224	90	13	70-130/30
75-25-2	Bromoform	ND		250	225	90	213	85	5	70-130/30
74-83-9	Bromomethane	ND		250	271	108	291	116	7	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	303	121	327	131* [a]	8	70-130/30
104-51-8	n-Butylbenzene	ND		250	214	86	242	97	12	70-130/30
135-98-8	sec-Butylbenzene	ND		250	269	108	251	100	7	70-130/30
98-06-6	tert-Butylbenzene	ND		250	236	94	240	96	2	70-130/30
75-15-0	Carbon disulfide	ND		250	279	112	267	107	4	70-130/30
56-23-5	Carbon tetrachloride	ND		250	255	102	269	108	5	70-130/30
108-90-7	Chlorobenzene	ND		250	260	104	261	104	0	70-130/30
75-00-3	Chloroethane	ND		250	265	106	285	114	7	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	ND	0* [a]	nc	70-130/30
67-66-3	Chloroform	ND		250	278	111	296	118	6	70-130/30
74-87-3	Chloromethane	ND		250	357	143* [a]	343	137* [a]	4	70-130/30
95-49-8	o-Chlorotoluene	ND		250	231	92	234	94	1	70-130/30
106-43-4	p-Chlorotoluene	ND		250	231	92	239	96	3	70-130/30
124-48-1	Dibromochloromethane	ND		250	225	90	240	96	6	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	227	91	251	100	10	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	239	96	238	95	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	219	88	220	88	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	237	95	196	78	19	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	291	116	325	130	11	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	299	120	281	112	6	70-130/30
75-35-4	1,1-Dichloroetheue	ND		250	295	118	309	124	5	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	273	109	287	115	5	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	274	110	284	114	4	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	255	102	239	96	6	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	215	86	213	85	1	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	291	116	293	117	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	273	109	265	106	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17746-1MS	M53726.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1MSD	M53727.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1	M53720.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Compound	MC17746-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	225	90	231	92	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	255	102	260	104	2	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1480	118	1270	102	15	70-130/30
97-63-2	Ethyl methacrylate	ND		250	246	98	250	100	2	72-139/30
100-41-4	Ethylbenzene	ND		250	238	95	241	96	1	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	192	77	213	85	10	70-130/30
591-78-6	2-Hexanone	ND		250	223	89	240	96	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	259	104	265	106	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	247	99	246	98	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	301	120	333	133* [a]	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	243	97	238	95	2	70-130/30
74-95-3	Methylene bromide	ND		250	263	105	243	97	8	70-130/30
75-09-2	Methylene chloride	ND		250	281	112	280	112	0	70-130/30
91-20-3	Naphthalene	ND		250	229	92	255	102	11	70-130/30
103-65-1	n-Propylbenzene	ND		250	252	101	247	99	2	70-130/30
100-42-5	Styrene	ND		250	247	99	240	96	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	239	96	244	98	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	194	78	194	78	0	70-130/30
127-18-4	Tetrachloroethene	ND		250	234	94	254	102	8	70-130/30
108-88-3	Toluene	ND		250	247	99	258	103	4	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	210	84	227	91	8	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	215	86	239	96	11	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	302	121	323	129	7	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	213	85	220	88	3	70-130/30
79-01-6	Trichloroethene	ND		250	245	98	235	94	4	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	294	118	339	136* [a]	14	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	218	87	210	84	4	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	231	92	233	93	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	228	91	231	92	1	70-130/30
108-05-4	Vinyl Acetate	ND		250	321	128	344	138* [a]	7	70-130/30
75-01-4	Vinyl chloride	ND		250	266	106	288	115	8	70-130/30
	m,p-Xylene	ND		500	532	106	514	103	3	70-130/30
95-47-6	o-Xylene	ND		250	272	109	262	105	4	70-130/30
1330-20-7	Xylene (total)	ND		750	804	107	776	103	4	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17746-1MS	M53726.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1MSD	M53727.D	5	01/28/13	AMY	n/a	n/a	MSM1825
MC17746-1	M53720.D	1	01/28/13	AMY	n/a	n/a	MSM1825

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-8, MC17751-14

CAS No.	Surrogate Recoveries	MS	MSD	MC17746-1	Limits
1868-53-7	Dibromofluoromethane	92%	91%	102%	70-130%
2037-26-5	Toluene-D8	86%	86%	97%	70-130%
460-00-4	4-Bromofluorobenzene	93%	90%	100%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17787-8MS	M53760.D	5	01/29/13	AMY	n/a	n/a	MSM1826
MC17787-8MSD	M53761.D	5	01/29/13	AMY	n/a	n/a	MSM1826
MC17787-8	M53755.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	MC17787-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	268	107	189	76	35* [a]	70-130/30
107-02-8	Acrolein	ND		1250	1700	136* [b]	1520	122	11	70-130/30
107-13-1	Acrylonitrile	ND		250	326	130	272	109	18	70-130/30
71-43-2	Benzene	ND		250	291	116	245	98	17	70-130/30
108-86-1	Bromobenzene	ND		250	250	100	209	84	18	70-130/30
74-97-5	Bromochloromethane	ND		250	341	136* [b]	280	112	20	70-130/30
75-27-4	Bromodichloromethane	ND		250	262	105	246	98	6	70-130/30
75-25-2	Bromoform	ND		250	232	93	209	84	10	70-130/30
74-83-9	Bromomethane	ND		250	310	124	276	110	12	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	409	164* [b]	295	118	32* [a]	70-130/30
104-51-8	n-Butylbenzene	ND		250	251	100	224	90	11	70-130/30
135-98-8	sec-Butylbenzene	ND		250	273	109	246	98	10	70-130/30
98-06-6	tert-Butylbenzene	ND		250	264	106	251	100	5	70-130/30
75-15-0	Carbon disulfide	ND		250	293	117	246	98	17	70-130/30
56-23-5	Carbon tetrachloride	ND		250	298	119	255	102	16	70-130/30
108-90-7	Chlorobenzene	ND		250	269	108	254	102	6	70-130/30
75-00-3	Chloroethane	ND		250	302	121	278	111	8	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	35.6	14* [b]	8.3	3* [b]	124* [a]	70-130/30
67-66-3	Chloroform	ND		250	323	129	260	104	22	70-130/30
74-87-3	Chloromethane	ND		250	356	142* [b]	297	119	18	70-130/30
95-49-8	o-Chlorotoluene	ND		250	256	102	215	86	17	70-130/30
106-43-4	p-Chlorotoluene	ND		250	272	109	219	88	22	70-130/30
124-48-1	Dibromochloromethane	ND		250	250	100	227	91	10	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	262	105	219	88	18	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	256	102	217	87	16	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	238	95	203	81	16	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	221	88	183	73	19	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	381	152* [b]	285	114	29	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	351	140* [b]	283	113	21	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	325	130	276	110	16	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	324	130	280	112	15	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	321	128	270	108	17	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	272	109	256	102	6	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	269	108	243	97	10	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	350	140* [b]	306	122	13	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	335	134* [b]	277	111	19	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17787-8MS	M53760.D	5	01/29/13	AMY	n/a	n/a	MSM1826
MC17787-8MSD	M53761.D	5	01/29/13	AMY	n/a	n/a	MSM1826
MC17787-8	M53755.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	MC17787-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	315	126	255	102	21	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	361	144* [b]	288	115	22	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1540	123	1510	121	2	70-130/30
97-63-2	Ethyl methacrylate	ND		250	345	138	274	110	23	72-139/30
100-41-4	Ethylbenzene	ND		250	257	103	228	91	12	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	220	88	178	71	21	70-130/30
591-78-6	2-Hexanone	ND		250	328	131* [b]	274	110	18	70-130/30
98-82-8	Isopropylbenzene	ND		250	291	116	240	96	19	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	263	105	234	94	12	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	360	144* [b]	293	117	21	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	396	158* [b]	299	120	28	70-130/30
74-95-3	Methylene bromide	ND		250	278	111	250	100	11	70-130/30
75-09-2	Methylene chloride	ND		250	312	125	257	103	19	70-130/30
91-20-3	Naphthalene	ND		250	278	111	219	88	24	70-130/30
103-65-1	n-Propylbenzene	ND		250	272	109	238	95	13	70-130/30
100-42-5	Styrene	ND		250	249	100	234	94	6	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	250	100	227	91	10	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	234	94	178	71	27	70-130/30
127-18-4	Tetrachloroethene	2.4		250	247	98	229	91	8	70-130/30
108-88-3	Toluene	ND		250	317	127	264	106	18	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	246	98	194	78	24	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	252	101	207	83	20	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	356	142* [b]	288	115	21	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	287	115	235	94	20	70-130/30
79-01-6	Trichloroetbene	ND		250	256	102	234	94	9	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	330	132* [b]	283	113	15	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	256	102	192	77	29	70-130/30
95-63-6	1,2,4-Trimethylbenzene	0.84		250	254	101	227	90	11	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	254	102	229	92	10	70-130/30
108-05-4	Vinyl Acetate	ND		250	470	188* [b]	315	126	39* [a]	70-130/30
75-01-4	Vinyl chloride	ND		250	299	120	251	100	17	70-130/30
	m,p-Xylene	ND		500	550	110	528	106	4	70-130/30
95-47-6	o-Xylene	ND		250	274	110	259	104	6	70-130/30
1330-20-7	Xylene (total)	ND		750	824	110	787	105	5	70-130/30

* = Outside of Control Limits.

6.3.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17787-8MS	M53760.D	5	01/29/13	AMY	n/a	n/a	MSM1826
MC17787-8MSD	M53761.D	5	01/29/13	AMY	n/a	n/a	MSM1826
MC17787-8	M53755.D	1	01/29/13	AMY	n/a	n/a	MSM1826

The QC reported here applies to the following samples: Method: SW846 8260B

MC17751-5, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Surrogate Recoveries	MS	MSD	MC17787-8	Limits
1868-53-7	Dibromofluoromethane	97%	97%	105%	70-130%
2037-26-5	Toluene-D8	98%	96%	99%	70-130%
460-00-4	4-Bromofluorobenzene	96%	97%	101%	70-130%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1825-CC1739	Injection Date:	01/28/13
Lab File ID:	M53715.D	Injection Time:	08:31
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	115098	9.36	179840	10.24	116584	13.52	133195	16.08	47366	6.86
Upper Limit [a]	230196	9.86	359680	10.74	233168	14.02	266390	16.58	94732	7.36
Lower Limit [b]	57549	8.86	89920	9.74	58292	13.02	66598	15.58	23683	6.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1825-BS	117635	9.36	184384	10.24	101551	13.52	131472	16.08	47466	6.87
MSM1825-MB	114045	9.36	179312	10.24	99581	13.52	135297	16.08	45263	6.85
MC17746-1	111422	9.36	185026	10.24	94743	13.52	121530	16.08	44402	6.86
ZZZZZZ	113924	9.36	183768	10.24	109357	13.52	128235	16.08	43651	6.86
ZZZZZZ	111089	9.36	169466	10.24	107190	13.52	125936	16.08	44461	6.85
ZZZZZZ	112201	9.36	183438	10.24	96013	13.51	124719	16.08	44490	6.86
ZZZZZZ	109472	9.36	163590	10.24	87644	13.52	122459	16.08	41264	6.86
ZZZZZZ	111457	9.36	180551	10.24	99226	13.52	126939	16.08	45287	6.85
MC17746-1MS	112646	9.36	178334	10.24	95322	13.51	125407	16.08	42820	6.86
MC17746-1MSD	110952	9.36	181356	10.24	99870	13.52	122918	16.08	42097	6.85
ZZZZZZ	108071	9.36	173299	10.24	112193	13.52	125841	16.08	48134	6.86
ZZZZZZ	115943	9.36	164986	10.24	90552	13.52	125616	16.08	43138	6.85
MC17751-8	113062	9.36	181150	10.24	85798	13.52	128184	16.08	47905	6.86
MC17751-14	114760	9.36	167738	10.24	93766	13.52	121562	16.08	52399	6.86
MC17751-2	116110	9.36	185695	10.24	89490	13.52	128151	16.08	48574	6.87
MC17751-1	109529	9.36	181328	10.24	92391	13.52	126155	16.08	48060	6.86
MC17751-3	112158	9.36	177985	10.24	93105	13.52	130325	16.08	44918	6.85
MC17751-4	113453	9.36	184403	10.24	103710	13.52	128077	16.08	47252	6.86
MC17751-5	112347	9.36	178065	10.24	102740	13.52	129022	16.08	47413	6.86
MC17751-6	107125	9.36	185385	10.24	110790	13.52	131635	16.08	53459	6.86
MC17751-7	115698	9.36	181913	10.24	96864	13.52	128514	16.08	50072	6.86

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

Volatile Internal Standard Area Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1826-CC1739	Injection Date:	01/29/13
Lab File ID:	M53747.D	Injection Time:	09:25
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	116455	9.36	186342	10.24	115940	13.52	133421	16.08	58016	6.86
Upper Limit [a]	232910	9.86	372684	10.74	231880	14.02	266842	16.58	116032	7.36
Lower Limit [b]	58228	8.86	93171	9.74	57970	13.02	66711	15.58	29008	6.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1826-BS	116455	9.36	186342	10.24	115940	13.52	133421	16.08	58016	6.86
MSM1826-MB	112566	9.36	180502	10.24	101278	13.52	128995	16.08	49381	6.86
ZZZZZZ	111183	9.36	175465	10.24	100325	13.52	125492	16.08	46472	6.86
ZZZZZZ	111774	9.36	179822	10.24	93683	13.51	125144	16.08	48267	6.87
ZZZZZZ	113167	9.36	178637	10.24	104236	13.52	134194	16.08	53708	6.86
ZZZZZZ	107860	9.36	184881	10.24	113275	13.52	128556	16.08	54099	6.86
MC17787-8	107851	9.36	183818	10.24	110656	13.52	132401	16.08	52294	6.86
MC17751-10	113477	9.36	179414	10.24	102041	13.52	128413	16.08	48293	6.86
MC17751-11	110682	9.36	176190	10.24	104608	13.52	125039	16.08	47987	6.86
MC17751-12	110964	9.36	174885	10.24	107655	13.52	125807	16.08	47198	6.85
MC17751-13	115450	9.36	186959	10.24	111976	13.52	129162	16.08	45692	6.87
MC17787-8MS	112941	9.36	188252	10.24	111612	13.51	125328	16.08	44588	6.85
MC17787-8MSD	112076	9.36	182261	10.24	96076	13.51	129470	16.08	41840	6.85
MC17751-5	109519	9.36	183464	10.24	108665	13.52	127734	16.08	46396	6.87
MC17751-3 [c]	113841	9.36	185600	10.24	95315	13.52	131531	16.08	47367	6.86
ZZZZZZ	109881	9.36	183224	10.24	107606	13.52	129095	16.08	47971	6.86
ZZZZZZ	113787	9.36	185246	10.24	104231	13.52	131903	16.08	45788	6.86
ZZZZZZ	111693	9.36	177595	10.24	111543	13.51	130548	16.08	46327	6.86
ZZZZZZ	110301	9.36	181337	10.24	107979	13.52	131096	16.08	44747	6.86
ZZZZZZ	109627	9.36	179316	10.24	105221	13.52	129502	16.08	47621	6.86
ZZZZZZ	108725	9.36	178275	10.24	104860	13.51	127175	16.08	47302	6.85

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minntes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Confirmation run for surrogate recoveries.

Volatile Surrogate Recovery Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17751-1	M53733.D	102.0	97.0	123.0
MC17751-2	M53732.D	97.0	81.0	93.0
MC17751-3	M53763.D	92.0	88.0	139.0* [a]
MC17751-3	M53734.D	98.0	91.0	148.0* [a]
MC17751-4	M53735.D	95.0	99.0	98.0
MC17751-5	M53762.D	103.0	97.0	105.0
MC17751-5	M53736.D	99.0	100.0	94.0
MC17751-6	M53737.D	106.0	98.0	103.0
MC17751-7	M53738.D	96.0	90.0	91.0
MC17751-8	M53730.D	98.0	83.0	89.0
MC17751-10	M53756.D	96.0	96.0	99.0
MC17751-11	M53757.D	95.0	99.0	96.0
MC17751-12	M53758.D	96.0	101.0	93.0
MC17751-13	M53759.D	96.0	91.0	106.0
MC17751-14	M53731.D	99.0	103.0	95.0
MC17746-1MS	M53726.D	92.0	86.0	93.0
MC17746-1MSD	M53727.D	91.0	86.0	90.0
MC17787-8MS	M53760.D	97.0	98.0	96.0
MC17787-8MSD	M53761.D	97.0	96.0	97.0
MSM1825-BS	M53717.D	98.0	105.0	94.0
MSM1825-MB	M53719.D	94.0	95.0	101.0
MSM1826-BS	M53747.D	91.0	94.0	94.0
MSM1826-MB	M53749.D	97.0	96.0	98.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

(a) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31790-MB	W8855.D	1	01/25/13	KR	01/25/13	OP31790	MSW416

The QC reported here applies to the following samples: Method: SW846 8270C

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

7.1.1

7

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ng/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31790-MB	W8855.D	1	01/25/13	KR	01/25/13	OP31790	MSW416

The QC reported here applies to the following samples: Method: SW846 8270C

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

7.1.1

7

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	25%	15-110%
4165-62-2	Phenol-d5	19%	15-110%
118-79-6	2,4,6-Tribromophenol	67%	15-110%
4165-60-0	Nitrobenzene-d5	49%	30-130%
321-60-8	2-Fluorobiphenyl	43%	30-130%
1718-51-0	Terphenyl-d14	72%	30-130%

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

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31791-MB	F61348.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)peryleue	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyreue	ND	0.10	0.036	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	26%	15-110%
4165-62-2	Phenol-d5	20%	15-110%
118-79-6	2,4,6-Tribromophenol	70%	15-110%
4165-60-0	Nitrobenzene-d5	53%	30-130%
321-60-8	2-Fluorobiphenyl	52%	30-130%
1718-51-0	Terphenyl-d14	79%	30-130%

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31790-BS	W8856.D	1	01/25/13	KR	01/25/13	OP31790	MSW416

The QC reported here applies to the following samples: **Method: SW846 8270C**

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	40.1	40	30-130
95-57-8	2-Chlorophenol	100	60.0	60	30-130
59-50-7	4-Chloro-3-methyl phenol	100	65.8	66	30-130
120-83-2	2,4-Dichlorophenol	100	68.6	69	30-130
105-67-9	2,4-Dimethylphenol	100	46.6	47	30-130
51-28-5	2,4-Dinitrophenol	100	73.6	74	30-130
534-52-1	4,6-Dinitro-o-cresol	100	73.4	73	30-130
95-48-7	2-Methylphenol	100	54.5	55	30-130
	3&4-Methylphenol	200	103	52	30-130
88-75-5	2-Nitrophenol	100	72.0	72	30-130
100-02-7	4-Nitrophenol	100	33.0	33	30-130
87-86-5	Pentachlorophenol	100	78.4	78	30-130
108-95-2	Phenol	100	29.5	30	30-130
95-95-4	2,4,5-Trichlorophenol	100	73.5	74	30-130
88-06-2	2,4,6-Trichlorophenol	100	74.8	75	30-130
62-53-3	Aniline	50	17.3	35* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	31.8	64	40-140
85-68-7	Butyl benzyl phthalate	50	20.2	40	40-140
100-51-6	Benzyl Alcohol	50	31.7	63	40-140
91-58-7	2-Chloronaphthalene	50	30.1	60	40-140
106-47-8	4-Chloroaniline	50	25.3	51	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	29.3	59	40-140
111-44-4	bis(2-Chloroethyl)ether	50	31.7	63	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	36.6	73	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	33.0	66	40-140
122-66-7	1,2-Diphenylhydrazine	50	31.4	63	40-140
121-14-2	2,4-Dinitrotoluene	50	36.7	73	40-140
606-20-2	2,6-Dinitrotoluene	50	34.7	69	40-140
91-94-1	3,3'-Dichlorobenzidine	50	26.3	53	40-140
132-64-9	Dibenzofuran	50	29.9	60	40-140
84-74-2	Di-n-butyl phthalate	50	27.4	55	40-140
117-84-0	Di-n-octyl phtbalate	50	36.6	73	40-140
84-66-2	Diethyl phthalate	50	19.7	39* a	40-140
131-11-3	Dimethyl phthalate	50	5.2	10* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	33.0	66	40-140
118-74-1	Hexachlorobenzene	50	33.9	68	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31790-BS	W8856.D	1	01/25/13	KR	01/25/13	OP31790	MSW416

The QC reported here applies to the following samples: Method: SW846 8270C

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	13.2	26* a	40-140
67-72-1	Hexachloroethane	50	21.3	43	40-140
78-59-1	Isophorone	50	35.8	72	40-140
88-74-4	2-Nitroaniline	50	35.3	71	40-140
99-09-2	3-Nitroaniline	50	26.8	54	40-140
100-01-6	4-Nitroaniline	50	30.8	62	40-140
98-95-3	Nitrobenzene	50	33.6	67	40-140
62-75-9	n-Nitrosodimethylamine	50	21.4	43	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	36.4	73	40-140
86-30-6	N-Nitrosodiphenylamine	50	32.2	64	40-140
110-86-1	Pyridine	50	15.9	32* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	39%	15-110%
4165-62-2	Phenol-d5	28%	15-110%
118-79-6	2,4,6-Tribromophenol	78%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	59%	30-130%
1718-51-0	Terphenyl-d14	67%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31791-BS	F61349.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	35.6	71	40-140
208-96-8	Acenaphthylene	50	26.0	52	40-140
120-12-7	Anthracene	50	36.8	74	40-140
56-55-3	Benzo(a)anthracene	50	37.0	74	40-140
50-32-8	Benzo(a)pyrene	50	37.9	76	40-140
205-99-2	Benzo(b)fluoranthene	50	41.4	83	40-140
191-24-2	Benzo(g,h,i)peryleue	50	39.1	78	40-140
207-08-9	Benzo(k)fluoranthene	50	36.9	74	40-140
218-01-9	Chrysene	50	36.6	73	40-140
53-70-3	Dibenzo(a,h)anthracene	50	39.8	80	40-140
206-44-0	Fluoranthene	50	40.6	81	40-140
86-73-7	Fluorene	50	37.8	76	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	38.8	78	40-140
90-12-0	1-Methylnaphthalene	50	32.7	65	40-140
91-57-6	2-Methylnaphthalene	50	31.8	64	40-140
85-01-8	Phenantbrene	50	37.2	74	40-140
129-00-0	Pyrene	50	38.5	77	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	40%	15-110%
4165-62-2	Phenol-d5	30%	15-110%
118-79-6	2,4,6-Tribromophenol	79%	15-110%
4165-60-0	Nitrobenzene-d5	73%	30-130%
321-60-8	2-Fluorobiphenyl	66%	30-130%
1718-51-0	Terpbenyl-d14	76%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31790-MS	W8857.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
OP31790-MSD	W8858.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
MC17750-5	W8859.D	1	01/25/13	KR	01/25/13	OP31790	MSW416

The QC reported here applies to the following samples: Method: SW846 8270C

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

7.3.1

7

CAS No.	Compound	MC17750-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	44.7	45	46.1	46	3	30-130/20
95-57-8	2-Chlorophenol	ND		100	60.5	61	59.9	60	1	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	76.5	77	77.8	78	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	75.0	75	74.9	75	0	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	50.3	50	51.7	52	3	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	89.5	90	93.7	94	5	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	91.4	91	93.7	94	2	30-130/20
95-48-7	2-Methylphenol	ND		100	56.8	57	57.0	57	0	30-130/20
	3&4-Methylphenol	ND		200	112	56	111	56	1	30-130/20
88-75-5	2-Nitrophenol	ND		100	75.7	76	75.2	75	1	30-130/20
100-02-7	4-Nitrophenol	ND		100	41.1	41	42.8	43	4	30-130/20
87-86-5	Pentachlorophenol	ND		100	97.4	97	102	102	5	30-130/20
108-95-2	Phenol	ND		100	31.2	31	30.5	31	2	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	87.3	87	90.9	91	4	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	87.8	88	89.9	90	2	30-130/20
62-53-3	Aniline	ND		50	18.2	36* [a]	18.2	36* [a]	0	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	39.3	79	41.1	82	4	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	25.3	51	26.8	54	6	40-140/20
100-51-6	Benzyl Alcohol	ND		50	33.9	68	34.2	68	1	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	34.8	70	34.4	69	1	40-140/20
106-47-8	4-Chloroaniline	ND		50	27.6	55	30.0	60	8	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	31.6	63	31.7	63	0	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	32.3	65	32.0	64	1	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	37.4	75	37.1	74	1	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	40.2	80	41.7	83	4	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	37.2	74	38.2	76	3	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	44.6	89	47.1	94	5	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	41.3	83	43.7	87	6	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	32.2	64	34.7	69	7	40-140/20
132-64-9	Dibenzofuran	ND		50	35.3	71	36.4	73	3	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	33.6	67	35.4	71	5	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	44.3	89	46.3	93	4	40-140/20
84-66-2	Diethyl phthalate	ND		50	23.9	48	25.6	51	7	40-140/20
131-11-3	Dimethyl phthalate	ND		50	6.5	13* [a]	7.0	14* [a]	7	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	40.8	82	42.7	85	5	40-140/20
118-74-1	Hexachlorobenzene	ND		50	42.1	84	43.6	87	4	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31790-MS	W8857.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
OP31790-MSD	W8858.D	1	01/25/13	KR	01/25/13	OP31790	MSW416
MC17750-5	W8859.D	1	01/25/13	KR	01/25/13	OP31790	MSW416

The QC reported here applies to the following samples: **Method:** SW846 8270C

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

7.3.1

7

CAS No.	Compound	MC17750-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	14.0	28* [a]	14.0	28* [a]	0	40-140/20
67-72-1	Hexachloroethane	ND		50	21.9	44	21.8	44	0	40-140/20
78-59-1	Isophorone	ND		50	40.4	81	40.5	81	0	40-140/20
88-74-4	2-Nitroaniline	ND		50	42.3	85	44.0	88	4	40-140/20
99-09-2	3-Nitroaniline	ND		50	29.4	59	32.7	65	11	40-140/20
100-01-6	4-Nitroaniline	ND		50	36.7	73	39.0	78	6	40-140/20
98-95-3	Nitrobenzene	ND		50	35.0	70	35.1	70	0	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	21.4	43	21.1	42	1	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	38.7	77	39.0	78	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	39.4	79	41.1	82	4	40-140/20
110-86-1	Pyridine	ND		50	16.5	33* [a]	16.4	33* [a]	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17750-5	Limits
367-12-4	2-Fluorophenol	39%	39%	36%	15-110%
4165-62-2	Phenol-d5	30%	30%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	100%	106%	84%	15-110%
4165-60-0	Nitrobenzene-d5	70%	71%	70%	30-130%
321-60-8	2-Fluorobiphenyl	68%	69%	63%	30-130%
1718-51-0	Terphenyl-d14	83%	89%	83%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31791-MS	F61350.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
OP31791-MSD	F61351.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880
MC17750-6	F61352.D	1	01/25/13	KR	01/25/13	OP31791	MSF2880

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-10, MC17751-11, MC17751-12, MC17751-13

7.3.2

7

CAS No.	Compound	MC17750-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	0.020	J	50	41.3	83	42.3	85	2	40-140/20
208-96-8	Acenaphthylene	ND		50	30.1	60	30.6	61	2	40-140/20
120-12-7	Anthracene	ND		50	43.7	87	45.6	91	4	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	43.7	87	45.6	91	4	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	45.0	90	46.2	92	3	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	49.3	99	48.8	98	1	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	46.4	93	48.2	96	4	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	43.2	86	46.2	92	7	40-140/20
218-01-9	Chrysene	ND		50	42.8	86	44.6	89	4	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	46.9	94	48.7	97	4	40-140/20
206-44-0	Fluoranthene	ND		50	48.2	96	50.2	100	4	40-140/20
86-73-7	Fluorene	ND		50	44.4	89	46.3	93	4	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	45.6	91	47.5	95	4	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	36.4	73	36.0	72	1	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	34.9	70	34.4	69	1	40-140/20
85-01-8	Phenanthrene	0.022	J	50	44.1	88	46.2	92	5	40-140/20
129-00-0	Pyrene	ND		50	45.6	91	47.5	95	4	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17750-6	Limits
367-12-4	2-Fluorophenol	41%	40%	37%	15-110%
4165-62-2	Phenol-d5	31%	31%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	101%	87%	15-110%
4165-60-0	Nitrobenzene-d5	75%	76%	76%	30-130%
321-60-8	2-Fluorobiphenyl	76%	76%	74%	30-130%
1718-51-0	Terphenyl-d14	91%	96%	91%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSF2880-CC2858	Injection Date:	01/25/13
Lab File ID:	F61347.D	Injection Time:	17:41
Instrument ID:	GCMSF	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	152679	3.92	449940	4.90	301235	6.32	571535	7.66	548234	10.42	849390	11.88
Upper Limit [a]	305358	4.42	899880	5.40	602470	6.82	1143070	8.16	1096468	10.92	1698780	12.38
Lower Limit [b]	76340	3.42	224970	4.40	150618	5.82	285768	7.16	274117	9.92	424695	11.38
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31791-MB	137339	3.92	401630	4.90	260652	6.32	490192	7.66	465412	10.42	711229	11.88
OP31791-BS	142938	3.92	419517	4.90	276037	6.32	518299	7.66	503867	10.43	767324	11.88
OP31791-MS	141304	3.92	411259	4.90	268874	6.32	503365	7.66	474647	10.43	724906	11.88
OP31791-MSD	148299	3.92	430833	4.90	279213	6.32	517321	7.65	484890	10.43	738360	11.88
MC17750-6	134808	3.92	396876	4.90	257886	6.32	480842	7.65	460638	10.42	714161	11.88
MC17751-1	140476	3.92	415361	4.90	266067	6.32	487276	7.65	475573	10.43	754796	11.88
MC17751-2	133350	3.92	393767	4.90	259934	6.32	480812	7.66	469066	10.42	729364	11.88
MC17751-3	130774	3.92	389498	4.90	253234	6.32	474608	7.65	463297	10.43	725858	11.88
MC17751-4	134461	3.92	397999	4.90	257118	6.32	477267	7.66	460920	10.43	715366	11.88
MC17751-5	133836	3.92	395454	4.90	261576	6.32	488152	7.66	466015	10.43	738495	11.88
MC17751-6	128496	3.92	381511	4.90	254208	6.32	470735	7.65	470777	10.42	739428	11.88
MC17751-7	130408	3.92	386016	4.90	254467	6.32	473967	7.65	476616	10.43	751667	11.88
MC17751-10	133205	3.92	392175	4.90	256495	6.32	487388	7.65	469011	10.43	743248	11.88
MC17751-11	132795	3.92	397503	4.90	258866	6.32	490797	7.65	476857	10.43	745215	11.88
MC17751-12	140703	3.93	409990	4.90	269775	6.32	506209	7.66	498092	10.42	771680	11.88
MC17751-13	137526	3.92	405050	4.90	266445	6.32	497673	7.65	484495	10.42	751119	11.88
ZZZZZZ	136858	3.92	408592	4.90	265580	6.32	493014	7.66	488876	10.42	738709	11.88
ZZZZZZ	142786	3.92	427089	4.90	274177	6.32	504994	7.65	484054	10.43	747531	11.88
ZZZZZZ	141450	3.92	420780	4.89	274587	6.32	514076	7.65	498055	10.43	772784	11.88
ZZZZZZ	137663	3.92	410372	4.90	266465	6.32	496631	7.66	484324	10.42	752113	11.88
ZZZZZZ	140139	3.92	414353	4.90	270148	6.32	500887	7.65	482681	10.42	749678	11.88
ZZZZZZ	138754	3.92	414921	4.90	273277	6.32	512349	7.65	495222	10.43	775149	11.88
ZZZZZZ	141950	3.92	424408	4.90	276395	6.32	521298	7.66	508967	10.42	796968	11.88
ZZZZZZ	141927	3.92	423925	4.89	274268	6.32	519158	7.65	515959	10.43	809856	11.88

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW416-CC399	Injection Date:	01/25/13
Lab File ID:	W8854.D	Injection Time:	16:54
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	69941	4.14	270417	5.14	169686	6.59	310712	7.95	380317	10.90	340046	12.49
Upper Limit [a]	139882	4.64	540834	5.64	339372	7.09	621424	8.45	760634	11.40	680092	12.99
Lower Limit [b]	34971	3.64	135209	4.64	84843	6.09	155356	7.45	190159	10.40	170023	11.99
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31790-MB	63880	4.14	248386	5.14	156001	6.58	286369	7.95	343103	10.89	315444	12.48
OP31797-BSD	72053	4.14	273399	5.14	169446	6.59	302733	7.95	352635	10.89	320602	12.49
OP31790-BS	72053	4.14	273399	5.14	169446	6.59	302733	7.95	352635	10.89	320602	12.49
OP31790-MS	70108	4.14	266514	5.14	163860	6.59	289998	7.95	336432	10.89	305447	12.49
OP31790-MSD	71411	4.14	271448	5.14	168518	6.59	301603	7.95	353168	10.89	324008	12.49
MC17750-5	65960	4.14	252472	5.14	158211	6.58	290145	7.95	333397	10.89	312425	12.48
MC17751-1	74317	4.14	284239	5.14	186083	6.59	350463	7.95	405549	10.90	372716	12.49
MC17751-2	71879	4.14	275127	5.14	171874	6.58	311154	7.95	373253	10.89	349987	12.48
MC17751-3	71374	4.14	272959	5.14	172349	6.59	315651	7.95	381068	10.89	355453	12.49
MC17751-4	70389	4.14	271952	5.14	169748	6.59	312475	7.95	370311	10.89	340678	12.49
MC17751-5	75067	4.14	284920	5.14	185337	6.58	329053	7.95	387130	10.89	361646	12.49
MC17751-6	73524	4.14	282536	5.14	184105	6.59	329968	7.95	386720	10.89	363631	12.49
MC17751-7	73785	4.14	278523	5.14	182898	6.58	327596	7.95	385154	10.89	359751	12.49
MC17751-10	73107	4.14	278764	5.14	176708	6.58	321379	7.95	382783	10.89	354447	12.49
MC17751-11	72749	4.14	273273	5.14	171317	6.58	310545	7.95	359508	10.90	341076	12.49
MC17751-12	79424	4.15	304187	5.14	193469	6.58	344454	7.95	403069	10.89	373908	12.48
MC17751-13	78722	4.15	301848	5.14	192253	6.59	344960	7.95	403882	10.89	374786	12.49
ZZZZZZ	75723	4.14	290035	5.14	199158	6.59	349813	7.95	388388	10.90	357828	12.49
ZZZZZZ	88280	4.14	341477	5.14	214094	6.58	398085	7.95	470730	10.89	426432	12.49
ZZZZZZ	81657	4.14	317687	5.14	197992	6.58	367823	7.95	433564	10.89	390372	12.49

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW418-CC399	Injection Date:	01/28/13
Lab File ID:	W8880.D	Injection Time:	08:02
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	60089	4.14	232323	5.14	144286	6.59	257932	7.95	312401	10.89	287592	12.49
Upper Limit [a]	120178	4.64	464646	5.64	288572	7.09	515864	8.45	624802	11.39	575184	12.99
Lower Limit [b]	30045	3.64	116162	4.64	72143	6.09	128966	7.45	156201	10.39	143796	11.99
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31797-MB	77297	4.14	296377	5.14	185272	6.58	343363	7.95	403099	10.89	381355	12.49
OP31797-BS	71648	4.14	275164	5.14	169560	6.59	303644	7.95	363651	10.89	335173	12.49
OP31797-MS	73606	4.14	282220	5.14	176505	6.59	314789	7.95	371750	10.89	337247	12.49
OP31797-MSD	70655	4.14	275114	5.14	173389	6.59	318487	7.95	370790	10.89	241116	12.48
MC17740-4	76003	4.14	289070	5.14	182809	6.58	337412	7.95	393650	10.89	368772	12.48
ZZZZZZ	71887	4.14	277988	5.14	175323	6.58	326827	7.95	382043	10.89	358386	12.48
ZZZZZZ	68370	4.14	266046	5.14	163705	6.58	304138	7.95	347231	10.89	323115	12.48
ZZZZZZ	70865	4.14	274363	5.14	169696	6.58	315256	7.95	362886	10.89	346267	12.48
ZZZZZZ	70662	4.14	273106	5.14	169410	6.58	313959	7.95	364013	10.89	343129	12.48
OP31805-MB	73679	4.14	282294	5.14	176966	6.58	326864	7.95	379319	10.89	355108	12.49
OP31805-BS	75621	4.14	287344	5.14	183748	6.59	330039	7.95	413830	10.89	378646	12.49
ZZZZZZ	72227	4.14	278244	5.14	176602	6.58	323072	7.95	397761	10.89	363037	12.49
ZZZZZZ	73828	4.14	284333	5.14	179848	6.58	334008	7.95	399938	10.89	373111	12.49
MC17751-5	82008	4.14	317020	5.14	201268	6.58	374176	7.95	452932	10.89	420556	12.49
MC17751-6	73197	4.14	282614	5.14	181362	6.58	332356	7.95	398431	10.89	372133	12.49
ZZZZZZ	78086	4.14	303197	5.14	203379	6.58	369899	7.95	429327	10.90	396594	12.49
ZZZZZZ	95527	4.15	359176	5.14	209750	6.59	385075	7.94	446036	10.73	573647	12.22
ZZZZZZ	97796	4.15	370410	5.14	218336	6.59	390862	7.94	457113	10.73	585558*	12.22
ZZZZZZ	99623	4.15	377620	5.14	224108	6.59	403613	7.94	471094	10.73	610354*	12.22
ZZZZZZ	91999	4.15	349037	5.14	207385	6.59	372331	7.94	435588	10.73	561566	12.22
ZZZZZZ	99645	4.15	376542	5.14	222181	6.59	397753	7.94	463395	10.73	586770*	12.22

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17751-1	W8860.D	34.0	36.0	88.0	69.0	56.0	40.0
MC17751-2	W8861.D	27.0	22.0	73.0	56.0	52.0	76.0
MC17751-3	W8862.D	34.0	27.0	83.0	71.0	64.0	63.0
MC17751-4	W8863.D	35.0	27.0	80.0	72.0	62.0	51.0
MC17751-5	W8905.D	37.0	34.0	64.0	69.0	60.0	47.0
MC17751-5	W8864.D	41.0	37.0	95.0	77.0	66.0	58.0
MC17751-6	W8906.D	29.0	29.0	60.0	58.0	49.0	39.0
MC17751-6	W8865.D	35.0	33.0	89.0	68.0	56.0	48.0
MC17751-7	W8866.D	30.0	29.0	75.0	69.0	56.0	48.0
MC17751-10	W8867.D	22.0	18.0	69.0	56.0	49.0	45.0
MC17751-11	W8868.D	37.0	34.0	85.0	75.0	70.0	58.0
MC17751-12	W8869.D	18.0	34.0	87.0	68.0	60.0	48.0
MC17751-13	W8870.D	19.0	36.0	92.0	70.0	62.0	48.0
OP31790-BS	W8856.D	39.0	28.0	78.0	67.0	59.0	67.0
OP31790-MB	W8855.D	25.0	19.0	67.0	49.0	43.0	72.0
OP31790-MS	W8857.D	39.0	30.0	100.0	70.0	68.0	83.0
OP31790-MSD	W8858.D	39.0	30.0	106.0	71.0	69.0	89.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorohiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17751-1	F61353.D	36.0	37.0	90.0	74.0	65.0	46.0
MC17751-2	F61354.D	28.0	22.0	76.0	61.0	63.0	86.0
MC17751-3	F61355.D	35.0	28.0	85.0	76.0	71.0	73.0
MC17751-4	F61356.D	36.0	28.0	83.0	78.0	74.0	60.0
MC17751-5	F61357.D	44.0	40.0	94.0	83.0	75.0	67.0
MC17751-6	F61358.D	37.0	35.0	88.0	69.0	63.0	57.0
MC17751-7	F61359.D	32.0	31.0	78.0	74.0	63.0	58.0
MC17751-10	F61360.D	23.0	19.0	72.0	61.0	57.0	54.0
MC17751-11	F61361.D	39.0	37.0	86.0	81.0	80.0	66.0
MC17751-12	F61362.D	53.0	35.0	85.0	76.0	72.0	55.0
MC17751-13	F61363.D	54.0	38.0	91.0	77.0	70.0	57.0
OP31791-BS	F61349.D	40.0	30.0	79.0	73.0	66.0	76.0
OP31791-MB	F61348.D	26.0	20.0	70.0	53.0	52.0	79.0
OP31791-MS	F61350.D	41.0	31.0	95.0	75.0	76.0	91.0
OP31791-MSD	F61351.D	40.0	31.0	101.0	76.0	76.0	96.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-MB	YZ78243.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-9, MC17751-10, MC17751-11, MC17751-12, MC17751-13, MC17751-15

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethaue	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	105%	36-173%
460-00-4	Bromofluorobenzene (S)	98%	36-173%

8.1.1

Blank Spike Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-BS	YZ78244.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-9, MC17751-10, MC17751-11, MC17751-12, MC17751-13, MC17751-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.063	89	60-140
106-93-4	1,2-Dibromoethane	0.071	0.065	92	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	36-173%
460-00-4	Bromofluorobenzene (S)	95%	36-173%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-MS	YZ78245.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
OP31861-MSD	YZ78246.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
MC17900-9	YZ78247.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17751-1, MC17751-2, MC17751-3, MC17751-4, MC17751-5, MC17751-6, MC17751-7, MC17751-9, MC17751-10, MC17751-11, MC17751-12, MC17751-13, MC17751-15

CAS No.	Compound	MC17900-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.066	93	0.071	100	7	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.077	108	0.089	125	14	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17900-9	Limits
460-00-4	Bromofluorobenzene (S)	112%	107%	97%	36-173%
460-00-4	Bromofluorobenzene (S)	99%	96%	92%	36-173%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17751-1	YZ78248.D	106.0	82.0
MC17751-2	YZ78249.D	93.0	89.0
MC17751-3	YZ78250.D	78.0	75.0
MC17751-4	YZ78251.D	92.0	84.0
MC17751-5	YZ78252.D	96.0	92.0
MC17751-6	YZ78254.D	81.0	81.0
MC17751-7	YZ78255.D	90.0	83.0
MC17751-9	YZ78256.D	111.0	105.0
MC17751-10	YZ78257.D	74.0	75.0
MC17751-11	YZ78258.D	68.0	67.0
MC17751-12	YZ78259.D	79.0	74.0
MC17751-13	YZ78260.D	89.0	84.0
MC17751-15	YZ78261.D	103.0	95.0
OP31861-BS	YZ78244.D	101.0	95.0
OP31861-MB	YZ78243.D	105.0	98.0
OP31861-MS	YZ78245.D	112.0	99.0
OP31861-MSD	YZ78246.D	107.0	96.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7036-ICC7036	Injection Date:	02/06/13
Lab File ID:	YZ78238.D	Injection Time:	02:26
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	5.12	4.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	YZ78241A.D	02/06/13	03:47	5.12	4.84
OP31861-MB	YZ78243.D	02/06/13	04:42	5.12	4.84
OP31861-BS	YZ78244.D	02/06/13	05:09	5.12	4.84
OP31861-MS	YZ78245.D	02/06/13	05:37	5.12	4.84
OP31861-MSD	YZ78246.D	02/06/13	06:04	5.12	4.84
MC17900-9	YZ78247.D	02/06/13	06:31	5.12	4.84
MC17751-1	YZ78248.D	02/06/13	06:59	5.12	4.84
MC17751-2	YZ78249.D	02/06/13	07:26	5.12	4.84
MC17751-3	YZ78250.D	02/06/13	07:54	5.12	4.84
MC17751-4	YZ78251.D	02/06/13	08:21	5.12	4.84
MC17751-5	YZ78252.D	02/06/13	08:48	5.12	4.84

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17751
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7036-CC7036	Injection Date:	02/06/13
Lab File ID:	YZ78253.D	Injection Time:	09:15
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	5.12	4.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC17751-6	YZ78254.D	02/06/13	09:42	5.12	4.84
MC17751-7	YZ78255.D	02/06/13	10:09	5.12	4.84
MC17751-9	YZ78256.D	02/06/13	10:36	5.12	4.84
MC17751-10	YZ78257.D	02/06/13	11:03	5.12	4.84
MC17751-11	YZ78258.D	02/06/13	11:30	5.12	4.84
MC17751-12	YZ78259.D	02/06/13	11:57	5.12	4.84
MC17751-13	YZ78260.D	02/06/13	12:24	5.12	4.84
MC17751-15	YZ78261.D	02/06/13	12:51	5.12	4.84
ZZZZZZ	YZ78262.D	02/06/13	13:18	5.12	4.84
ZZZZZZ	YZ78263.D	02/06/13	13:44	5.12	4.84

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.2

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17857

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/20/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
P57-ROX-012913	TB-012913-HCL
TB-012913-ST	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. Sample P57-ROX-012913 was diluted due to high levels of VOC target analytes. These issues are addressed further in the appropriate sections below.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSN2725-BS/BSD	VOCs	Acrylonitrile	**486/500**	3	70-130/25
MWN2725-BS/BSD	VOCs	Dibromochloromethane	122/**131**	8	70-130/25
OP31849-BS	SVOCs	2,4-Dimethylphenol	**28**	NA	30-130
OP31849-BS	SVOCs	Phenol	**23**	NA	30-130

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
OP31849-BS	SVOCs	Aniline	**36**	NA	40-140
OP31849-BS	SVOCs	Hexachlorocyclopentadiene	**30**	NA	40-140
OP31849-BS	SVOCs	Pyridine	**32**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LCSD MSN2725-BS was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
P57-ROX-012913	SVOCs	2,4-Dimethylphenol	**J**
P57-ROX-012913	SVOCs	Phenol	**UJ**
P57-ROX-012913	SVOCs	Aniline	**UJ**
P57-ROX-012913	SVOCs	Hexachlorocyclopentadiene	**UJ**
P57-ROX-012913	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

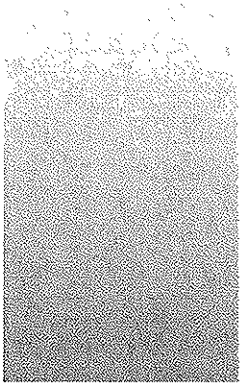
12.0 Additional Qualifications

Were additional qualifications applied?

No

New England ACCUTEST LABORATORIES

02/14/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17857

Sampling Date: 01/29/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Total number of pages in report: **57**

Reviewed on 2/20/2013

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **7**
4.1: MC17857-1: P57-ROX-012913 8
4.2: MC17857-2: TB-012913-HCL 15
4.3: MC17857-3: TB-012913-ST 18
Section 5: Misc. Forms **19**
5.1: Chain of Custody 20
5.2: Sample Tracking Chronicle 22
5.3: Internal Chain of Custody 23
Section 6: GC/MS Volatiles - QC Data Summaries **24**
6.1: Method Blank Summary 25
6.2: Blank Spike/Blank Spike Duplicate Summary 28
6.3: Matrix Spike/Matrix Spike Duplicate Summary 31
6.4: Internal Standard Area Summaries 34
6.5: Surrogate Recovery Summaries 35
Section 7: GC/MS Semi-volatiles - QC Data Summaries **36**
7.1: Method Blank Summary 37
7.2: Blank Spike Summary 40
7.3: Matrix Spike/Matrix Spike Duplicate Summary 43
7.4: Internal Standard Area Summaries 46
7.5: Surrogate Recovery Summaries 49
Section 8: GC Volatiles - QC Data Summaries **51**
8.1: Method Blank Summary 52
8.2: Blank Spike Summary 53
8.3: Matrix Spike/Matrix Spike Duplicate Summary 54
8.4: Surrogate Recovery Summaries 55
8.5: GC Surrogate Retention Time Summaries 56

Sample Summary

Shell Oil

Job No: MC17857

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
MC17857-1	01/29/13	09:25 LRTC	01/30/13	AQ	Ground Water	P57-ROX-012913
MC17857-2	01/29/13	00:00 LRTC	01/30/13	AQ	Trip Blank Water	TB-012913-HCL
MC17857-3	01/29/13	00:00 LRTC	01/30/13	AQ	Trip Blank Water	TB-012913-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC17857
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	Report Date	2/12/2013 11:54:54 AM

1 Sample(s) and 2 Trip Blank(s) were collected on 01/29/2013 and were received at Accutest on 01/30/2013 properly preserved, at 2.2 Deg. C and intact. These Samples received an Accutest job number of MC17857. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ Batch ID: MSN2725

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17884-4MS, MC17884-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BSD Recovery(s) for Dibromochloromethane are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for Acrylonitrile are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSN2725-BS/BSD for Acrylonitrile: Outside control limits. Associated samples are non-detect for this componnd.

Extractables by GCMS By Method SW846 8270C

Matrix AQ Batch ID: OP31849

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17900-5MS, MC17900-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS/MS Recovery(s) for 2,4-Dimethylphenol, Aniline, Hexachloroeyclopentadiene, Phenol, Pyridine are ontside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Benzoic Acid, n-Nitrosodimethylamine, Dimethyl phthalate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, Hexachlorocyclopentadiene, Phenol are outside control limits. Blank Spike meets program technical requirements.
- RPD(s) for MSD for 3&4-Methylphenol, Benzyl Alcohol, n-Nitrosodimethylamine, 2,4-Dichlorophenol, 2-Chloronaphthalene, 2-Chlorophenol, 2-Methylphenol, 2-Nitrophenol, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl)ether, bis(2-Chloroisopropyl)ether, Hexachloroethane, Isophorone, N-Nitroso-di-n-propylamine, Nitrobenzene are outside control limits for sample OP31849-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- RPD of OP31849-MSD for Hexachlorocyclopentadiene, Phenol, Pyridine: Outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31850

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17900-4MS, MC17900-4MSD were used as the QC samples indicated.
- RPD(s) for MSD for 1-Methylnaphthalene, 2-Methylnaphthalene are outside control limits for sample OP31850-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31861

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17900-9MS, MC17900-9MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17857).

Summary of Hits

Job Number: MC17857
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/29/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17857-1	P57-ROX-012913					
Benzene		114000	250	120	ug/l	SW846 8260B
Chlorobenzene		1430	500	230	ug/l	SW846 8260B
Ethylbenzene		1100	500	250	ug/l	SW846 8260B
n-Propylbenzene		331 J	2500	290	ug/l	SW846 8260B
2,4-Dimethylphenol		2.3 J	12	1.8	ug/l	SW846 8270C
Acenaphthene		0.61	0.12	0.016	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.13	0.12	0.016	ug/l	SW846 8270C BY SIM
Anthracene		0.076 J	0.12	0.021	ug/l	SW846 8270C BY SIM
Fluorene		0.94	0.12	0.054	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		36.9	0.24	0.17	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		44.7	0.24	0.061	ug/l	SW846 8270C BY SIM
Phenanthrene		0.74	0.059	0.015	ug/l	SW846 8270C BY SIM
MC17857-2	TB-012913-HCL					
No hits reported in this sample.						
MC17857-3	TB-012913-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P57-ROX-012913		
Lab Sample ID:	MC17857-1	Date Sampled:	01/29/13
Matrix:	AQ - Ground Water	Date Received:	01/30/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N72540.D	500	01/31/13	KD	n/a	n/a	MSN2725
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	2500	1500	ug/l	
107-02-8	Acrolein	ND	13000	5100	ug/l	
107-13-1	Acrylonitrile	ND	2500	1600	ug/l	
71-43-2	Benzene	114000	250	120	ug/l	
108-86-1	Bromobenzene	ND	2500	310	ug/l	
74-97-5	Bromochloromethane	ND	2500	630	ug/l	
75-27-4	Bromodichloromethane	ND	500	290	ug/l	
75-25-2	Bromoform	ND	500	390	ug/l	
74-83-9	Bromomethane	ND	1000	510	ug/l	
78-93-3	2-Butanone (MEK)	ND	2500	1200	ug/l	
104-51-8	n-Butylbenzene	ND	2500	300	ug/l	
135-98-8	sec-Butylbenzene	ND	2500	280	ug/l	
98-06-6	tert-Butylbenzene	ND	2500	320	ug/l	
75-15-0	Carbon disulfide	ND	2500	310	ug/l	
56-23-5	Carbon tetrachloride	ND	500	430	ug/l	
108-90-7	Chlorobenzene	1430	500	230	ug/l	
75-00-3	Chloroethane	ND	1000	250	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	2500	630	ug/l	
67-66-3	Chloroform	ND	500	250	ug/l	
74-87-3	Chloromethane	ND	1000	370	ug/l	
95-49-8	o-Chlorotoluene	ND	2500	320	ug/l	
106-43-4	p-Chlorotoluene	ND	2500	240	ug/l	
124-48-1	Dibromochloromethane	ND	500	260	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	500	460	ng/l	
541-73-1	1,3-Dichlorobenzene	ND	500	230	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	500	320	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1000	860	ug/l	
75-34-3	1,1-Dichloroethane	ND	500	310	ug/l	
107-06-2	1,2-Dichloroethane	ND	500	320	ug/l	
75-35-4	1,1-Dichloroethene	ND	500	210	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	500	320	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	500	470	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:	P57-ROX-012913		
Lab Sample ID:	MC17857-1	Date Sampled:	01/29/13
Matrix:	AQ - Ground Water	Date Received:	01/30/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxaua 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	1000	360	ug/l	
142-28-9	1,3-Dichloropropane	ND	2500	320	ug/l	
594-20-7	2,2-Dichloropropane	ND	2500	790	ug/l	
563-58-6	1,1-Dichloropropene	ND	2500	460	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	250	220	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	250	98	ug/l	
123-91-1	1,4-Dioxane	ND	13000	7400	ug/l	
97-63-2	Ethyl methacrylate	ND	2500	410	ug/l	
100-41-4	Ethylbenzene	1100	500	250	ug/l	
87-68-3	Hexachlorobutadiene	ND	2500	1000	ug/l	
591-78-6	2-Hexanone	ND	2500	980	ug/l	
98-82-8	Isopropylbenzene	ND	2500	250	ug/l	
99-87-6	p-Isopropyltoluene	ND	2500	290	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	500	210	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	2500	1500	ug/l	
74-95-3	Methylene bromide	ND	2500	550	ug/l	
75-09-2	Methylene chloride	ND	1000	420	ug/l	
91-20-3	Naphthalene	ND	2500	250	ug/l	
103-65-1	n-Propylbenzene	331	2500	290	ug/l	J
100-42-5	Styrene	ND	2500	230	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2500	290	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	500	300	ug/l	
127-18-4	Tetrachloroethene	ND	500	210	ug/l	
108-88-3	Toluene	ND	500	250	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2500	630	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2500	640	ug/l	
71-55-6	1,1,1-Trichloroethaue	ND	500	420	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	500	250	ug/l	
79-01-6	Trichloroethene	ND	500	390	ug/l	
75-69-4	Trichlorofluoromethane	ND	500	140	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2500	420	ug/l	
95-63-6	1,2,4-Trimethylbeuzeue	ND	2500	170	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2500	230	ug/l	
108-05-4	Vinyl Acetate	ND	2500	630	ug/l	
75-01-4	Vinyl chloride	ND	500	310	ug/l	
	m,p-Xylene	ND	500	370	ug/l	
95-47-6	o-Xylene	ND	500	290	ug/l	
1330-20-7	Xylene (total)	ND	500	290	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:	P57-ROX-012913		
Lab Sample ID:	MC17857-1	Date Sampled:	01/29/13
Matrix:	AQ - Ground Water	Date Received:	01/30/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	110%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P57-ROX-012913		
Lab Sample ID:	MC17857-1	Date Sampled:	01/29/13
Matrix:	AQ - Ground Water	Date Received:	01/30/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U12134.D	1	02/05/13	NS	01/31/13	OP31849	MSU629
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	12	1.5	ug/l	
95-57-8	2-Chlorophenol	ND	5.9	0.83	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	12	0.65	ug/l	
120-83-2	2,4-Dichlorophenol	ND	12	1.2	ug/l	
105-67-9	2,4-Dimethylphenol	2.3	12	1.8	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	24	2.9	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	12	2.9	ug/l	
95-48-7	2-Methylphenol	ND	12	2.3	ug/l	
	3&4-Methylphenol	ND	12	1.2	ug/l	
88-75-5	2-Nitrophenol	ND	12	0.63	ug/l	
100-02-7	4-Nitrophenol	ND	24	1.8	ng/l	
87-86-5	Pentachlorophenol	ND	12	1.5	ug/l	
108-95-2	Phenol	ND	5.9	1.2	ug/l	UJ
95-95-4	2,4,5-Trichlorophenol	ND	12	1.4	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	12	2.1	ug/l	
62-53-3	Aniline	ND	12	0.75	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.9	0.86	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.9	0.78	ug/l	
100-51-6	Benzyl Alcohol	ND	12	2.1	ng/l	
91-58-7	2-Chloronaphthalene	ND	5.9	1.2	ug/l	
106-47-8	4-Chloroaniline	ND	12	4.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.9	1.2	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.9	0.40	ng/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.9	0.45	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.9	1.7	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.9	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	12	0.95	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	12	0.90	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.9	1.1	ug/l	
132-64-9	Dibenzofuran	ND	2.4	1.2	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.9	0.64	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.9	1.5	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:	P57-ROX-012913		
Lab Sample ID:	MC17857-1	Date Sampled:	01/29/13
Matrix:	AQ - Ground Water	Date Received:	01/30/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.9	0.59	ug/l	
131-11-3	Dimethyl phthalate	ND	5.9	0.24	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.4	0.54	ug/l	
118-74-1	Hexachlorobenzene	ND	5.9	0.62	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	12	1.5	ug/l	U
67-72-1	Hexachloroethane	ND	5.9	1.9	ug/l	
78-59-1	Isophorone	ND	5.9	0.59	ug/l	
88-74-4	2-Nitroaniline	ND	12	1.0	ug/l	
99-09-2	3-Nitroaniline	ND	12	2.6	ug/l	
100-01-6	4-Nitroaniline	ND	12	1.3	ug/l	
98-95-3	Nitrobenzene	ND	5.9	0.59	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.9	1.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.9	1.2	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.9	1.5	ug/l	
110-86-1	Pyridine	ND	12	0.59	ug/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	33%		15-110%
4165-62-2	Phenol-d5	32%		15-110%
118-79-6	2,4,6-Tribromophenol	78%		15-110%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	68%		30-130%
1718-51-0	Terphenyl-d14	48%		30-130%

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

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

Report of Analysis

Client Sample ID:	P57-ROX-012913		
Lab Sample ID:	MC17857-1	Date Sampled:	01/29/13
Matrix:	AQ - Ground Water	Date Received:	01/30/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenne, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U12092.D	1	02/02/13	NS	01/31/13	OP31850	MSU627
Run #2							

	Initial Volume	Final Volume
Run #1	850 ml	1.0 ml
Run #2		

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.61	0.12	0.016	ug/l	
208-96-8	Acenaphthylene	0.13	0.12	0.016	ug/l	
120-12-7	Anthracene	0.076	0.12	0.021	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.059	0.035	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.12	0.020	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.059	0.028	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.12	0.044	ug/l	
207-08-9	Benzo(k)flnoranthene	ND	0.12	0.069	ug/l	
218-01-9	Chrysene	ND	0.12	0.086	ng/l	
53-70-3	Dibenzo(a,h)antbracene	ND	0.12	0.049	ug/l	
206-44-0	Fluoranthene	ND	0.12	0.038	ug/l	
86-73-7	Fluorene	0.94	0.12	0.054	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.12	0.054	ug/l	
90-12-0	1-Methylnaphthalene	36.9	0.24	0.17	ug/l	
91-57-6	2-Methylnaphthalene	44.7	0.24	0.061	ug/l	
85-01-8	Phenanthrene	0.74	0.059	0.015	ug/l	
129-00-0	Pyrene	ND	0.12	0.042	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	31%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	74%		15-110%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%
1718-51-0	Terphenyl-d14	60%		30-130%

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:	P57-ROX-012913		
Lab Sample ID:	MC17857-1	Date Sampled:	01/29/13
Matrix:	AQ - Ground Water	Date Received:	01/30/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78262.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	35.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	100%		36-173%
460-00-4	Bromofluorobenzene (S)	81%		36-173%

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

Report of Analysis

Client Sample ID:	TB-012913-HCL		
Lab Sample ID:	MC17857-2	Date Sampled:	01/29/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/30/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N72523.D	1	01/31/13	KD	n/a	n/a	MSN2725
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ng/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ng/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

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

Report of Analysis

Client Sample ID:	TB-012913-HCL		
Lab Sample ID:	MC17857-2	Date Sampled:	01/29/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/30/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ng/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorohutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylhenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-012913-HCL		
Lab Sample ID:	MC17857-2	Date Sampled:	01/29/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/30/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	114%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-012913-ST		
Lab Sample ID:	MC17857-3	Date Sampled:	01/29/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/30/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78263.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	90%		36-173%
460-00-4	Bromofluorobenzene (S)	87%		36-173%

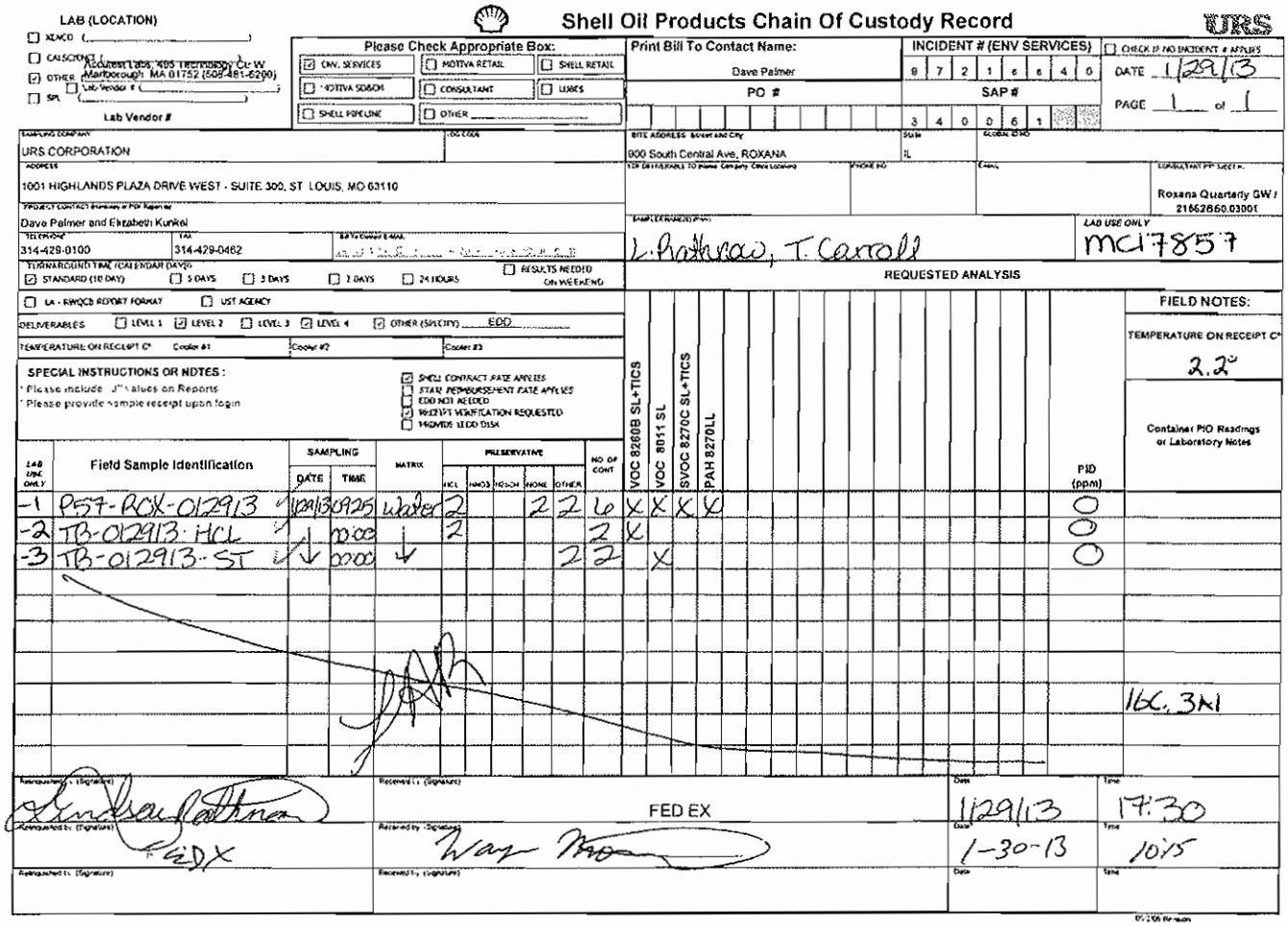
ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

New England ACCUTEST LABORATORIES

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W Marlborough MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&DI ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Dave Palmer
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 6
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE 1/29/13
PAGE 1 of 1

SAMPLING COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST LOUIS, MO 63110
PROJECT CONTACT (Reports) & PO# Reporter: Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462
SAMPLER(S) SIGNATURE(S): L. Rathsam, T. Carroll
BILL ADDRESS: 900 South Central Ave, ROXANA, IL
CONSULTANT PROJECT #: Roxana Quarterly GW / 21862660.03001
LAB USE ONLY: MC17857

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports
* Please provide sample receipt upon login
☑ SHELL CONTRACT RATE APPLIES
☐ STAR (REIMBURSEMENT RATE APPLIES)
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ MOVES EDD DISK

REQUESTED ANALYSIS

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 2.2°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	P57-RCX-012913	1/29/13	0925	Water	2			2	2	6	X	X	X	X	0	
-2	TB-012913-HCL	↓	0000	↓	2				2	2	X				0	
-3	TB-012913-ST	↓	0000	↓					2	2		X			0	
																16C, 3N1

Relinquished by: (Signature) Received by: (Signature) FED EX Date 1/29/13 Time 17:30
Relinquished by: (Signature) FED X Received by: (Signature) Date 1-30-13 Time 10:15
Relinquished by: (Signature) Received by: (Signature) Date Time

5.1 5

MC17857: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17857 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/30/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SO CENTRAL AVE No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V 508 481 6200
495 Technology Center West, Bldg One
F 508 481 7753
Marlborough, MA
www.accutest.com

5.1

5

MC17857: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17857

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17857-1 Collected: 29-JAN-13 09:25 By: LRTC Received: 30-JAN-13 By: P57-ROX-012913						
MC17857-1	SW846 8260B	31-JAN-13 19:53	KD			V8260SL+
MC17857-1	SW846 8270C BY SIM	02-FEB-13 01:39	NS	31-JAN-13	AJ	B8270SIMSL
MC17857-1	SW846 8270C	05-FEB-13 16:47	NS	31-JAN-13	AJ	AB8270SL+
MC17857-1	SW846 8011	06-FEB-13 13:18	AP	01-FEB-13	BJ	V8011SL
MC17857-2 Collected: 29-JAN-13 00:00 By: LRTC Received: 30-JAN-13 By: TB-012913-HCL						
MC17857-2	SW846 8260B	31-JAN-13 11:54	KD			V8260SL+
MC17857-3 Collected: 29-JAN-13 00:00 By: LRTC Received: 30-JAN-13 By: TB-012913-ST						
MC17857-3	SW846 8011	06-FEB-13 13:44	AP	01-FEB-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/30/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17857-1.1	Walk In Ref #22	Bijan Jafari	01/31/13 11:07	Retrieve from Storage
MC17857-1.1	Bijan Jafari		02/02/13 13:41	Depleted
MC17857-1.4	VOC Ref #2	Krysten Dufort	01/31/13 11:06	Retrieve from Storage
MC17857-1.4	Krysten Dufort	GCMSN	01/31/13 11:07	Load on Instrument
MC17857-1.4	GCMSN	Krysten Dufort	02/01/13 09:50	Unload from Instrument
MC17857-1.4	Krysten Dufort	VOC Ref #2	02/01/13 09:51	Return to Storage
MC17857-1.5	VOC Ref #3	Bijan Jafari	02/01/13 14:34	Retrieve from Storage
MC17857-1.5	Bijan Jafari		02/02/13 13:41	Depleted
MC17857-2.2	VOC Ref #2	Krysten Dufort	01/31/13 11:06	Retrieve from Storage
MC17857-2.2	Krysten Dufort	GCMSN	01/31/13 11:07	Load on Instrument
MC17857-2.2	GCMSN	Krysten Dufort	02/01/13 09:50	Unload from Instrument
MC17857-2.2	Krysten Dufort	VOC Ref #2	02/01/13 09:51	Return to Storage
MC17857-3.1	VOC Ref #3	Bijan Jafari	02/01/13 14:34	Retrieve from Storage
MC17857-3.1	Bijan Jafari		02/02/13 13:41	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2725-MB	N72522.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ng/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ng/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ng/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2725-MB	N72522.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ng/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ng/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ng/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloruethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ng/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2725-MB	N72522.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromofluorobenzene	114%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2725-BS	N72519.D	1	01/31/13	KD	n/a	n/a	MSN2725
MSN2725-BSD	N72520.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	45.8	92	47.4	95	3	70-130/25
107-02-8	Acrolein	250	269	108	274	110	2	70-130/25
107-13-1	Acrylonitrile	50	243	486* a	250	500* a	3	70-130/25
71-43-2	Benzene	50	44.7	89	49.2	98	10	70-130/25
108-86-1	Bromobenzene	50	47.9	96	52.4	105	9	70-130/25
74-97-5	Bromochloromethane	50	48.2	96	54.0	108	11	70-130/25
75-27-4	Bromodichloromethane	50	51.7	103	56.3	113	9	70-130/25
75-25-2	Bromoform	50	52.4	105	54.7	109	4	70-130/25
74-83-9	Bromomethane	50	44.1	88	51.8	104	16	70-130/25
78-93-3	2-Butanone (MEK)	50	47.8	96	48.8	98	2	70-130/25
104-51-8	n-Butylbenzene	50	47.5	95	52.5	105	10	70-130/25
135-98-8	sec-Butylbenzene	50	46.0	92	50.6	101	10	70-130/25
98-06-6	tert-Bntylbenzene	50	44.5	89	49.2	98	10	70-130/25
75-15-0	Carbon disulfide	50	44.9	90	51.2	102	13	70-130/25
56-23-5	Carbon tetrachloride	50	49.4	99	54.2	108	9	70-130/25
108-90-7	Chlorobenzene	50	45.6	91	49.3	99	8	70-130/25
75-00-3	Chloroethane	50	46.2	92	50.8	102	9	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	47.4	95	52.5	105	10	70-130/25
67-66-3	Chloroform	50	46.7	93	52.2	104	11	70-130/25
74-87-3	Chloromethane	50	41.2	82	44.6	89	8	70-130/25
95-49-8	o-Chlorotoluene	50	43.9	88	48.3	97	10	70-130/25
106-43-4	p-Chlorotoluene	50	45.9	92	50.6	101	10	70-130/25
124-48-1	Dibromochloromethane	50	60.8	122	65.7	131* b	8	70-130/25
95-50-1	1,2-Dichlorobenzene	50	46.7	93	50.7	101	8	70-130/25
541-73-1	1,3-Dichlorobenzene	50	46.2	92	50.4	101	9	70-130/25
106-46-7	1,4-Dichlorohenzene	50	50.5	101	55.1	110	9	70-130/25
75-71-8	Dichlorodifluoromethane	50	44.9	90	50.0	100	11	70-130/25
75-34-3	1,1-Dichloroethane	50	49.4	99	55.7	111	12	70-130/25
107-06-2	1,2-Dichloroethane	50	46.2	92	50.0	100	8	70-130/25
75-35-4	1,1-Dichloroethene	50	49.1	98	55.9	112	13	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	43.8	88	48.7	97	11	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	43.6	87	48.5	97	11	70-130/25
78-87-5	1,2-Dichloropropane	50	46.4	93	51.4	103	10	70-130/25
142-28-9	1,3-Dichloropropane	50	50.3	101	53.3	107	6	70-130/25
594-20-7	2,2-Dichloropropane	50	41.6	83	46.0	92	10	70-130/25
563-58-6	1,1-Dichloropropene	50	48.7	97	52.2	104	7	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2725-BS	N72519.D	1	01/31/13	KD	n/a	n/a	MSN2725
MSN2725-BSD	N72520.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	42.8	86	46.8	94	9	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	45.6	91	49.3	99	8	70-130/25
123-91-1	1,4-Dioxane	250	253	101	223	89	13	70-130/25
97-63-2	Ethyl methacrylate	50	50.1	100	51.2	102	2	77-137/25
100-41-4	Ethylbenzene	50	45.3	91	49.7	99	9	70-130/25
87-68-3	Hexachlorobutadiene	50	49.5	99	54.1	108	9	70-130/25
591-78-6	2-Hexanone	50	49.8	100	49.6	99	0	70-130/25
98-82-8	Isopropylbenzene	50	45.5	91	50.2	100	10	70-130/25
99-87-6	p-Isopropyltoluene	50	50.1	100	54.7	109	9	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	37.0	74	41.5	83	11	70-130/25
108-10-1	4-Methyl-2-pentanone (M1BK)	50	45.7	91	45.2	90	1	70-130/25
74-95-3	Methylene bromide	50	49.6	99	52.9	106	6	70-130/25
75-09-2	Methylene chloride	50	45.8	92	51.7	103	12	70-130/25
91-20-3	Naphthalene	50	49.7	99	52.0	104	5	70-130/25
103-65-1	n-Propylbenzene	50	45.2	90	49.8	100	10	70-130/25
100-42-5	Styrene	50	47.2	94	51.4	103	9	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	57.7	115	63.2	126	9	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	52.8	106	55.6	111	5	70-130/25
127-18-4	Tetrachloroethene	50	53.1	106	58.8	118	10	70-130/25
108-88-3	Toluene	50	45.3	91	49.8	100	9	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	49.1	98	51.9	104	6	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	48.0	96	51.7	103	7	70-130/25
71-55-6	1,1,1-Trichloroethane	50	45.9	92	52.1	104	13	70-130/25
79-00-5	1,1,2-Trichloroethane	50	47.6	95	51.2	102	7	70-130/25
79-01-6	Trichloroethene	50	45.3	91	49.4	99	9	70-130/25
75-69-4	Trichlorofluoromethane	50	48.2	96	54.4	109	12	70-130/25
96-18-4	1,2,3-Trichloropropane	50	51.3	103	52.0	104	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	46.0	92	50.7	101	10	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	46.1	92	51.0	102	10	70-130/25
108-05-4	Vinyl Acetate	50	55.9	112	59.0	118	5	70-130/25
75-01-4	Vinyl chloride	50	43.1	86	47.1	94	9	70-130/25
	m,p-Xylene	100	85.2	85	93.6	94	9	70-130/25
95-47-6	o-Xylene	50	42.7	85	46.0	92	7	70-130/25
1330-20-7	Xylene (total)	150	128	85	140	93	9	70-130/25

* = Outside of Control Limits.

6.2.1

6

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2725-BS	N72519.D	1	01/31/13	KD	n/a	n/a	MSN2725
MSN2725-BSD	N72520.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	112%	117%	70-130%
2037-26-5	Toluene-D8	111%	112%	70-130%
460-00-4	4-Bromofluorobenzene	106%	106%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17884-4MS	N72543.D	5	01/31/13	KD	n/a	n/a	MSN2725
MC17884-4MSD	N72544.D	5	01/31/13	KD	n/a	n/a	MSN2725
MC17884-4	N72526.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Compound	MC17884-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	8.6		250	217	83	221	85	2	70-130/30
107-02-8	Acrolein	ND		1250	1180	94	1180	94	0	70-130/30
107-13-1	Acrylonitrile	ND		250	1100	440* [a]	1110	444* [a]	1	70-130/30
71-43-2	Benzene	ND		250	233	93	223	89	4	70-130/30
108-86-1	Bromobenzene	ND		250	236	94	236	94	0	70-130/30
74-97-5	Bromochloromethane	ND		250	247	99	239	96	3	70-130/30
75-27-4	Bromodichloromethane	ND		250	250	100	248	99	1	70-130/30
75-25-2	Bromoform	ND		250	234	94	242	97	3	70-130/30
74-83-9	Bromomethane	ND		250	194	78	233	93	18	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	216	86	215	86	0	70-130/30
104-51-8	n-Butylbenzene	ND		250	231	92	229	92	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	226	90	226	90	0	70-130/30
98-06-6	tert-Butylbenzene	ND		250	219	88	215	86	2	70-130/30
75-15-0	Carbon disulfide	ND		250	235	94	228	91	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	233	93	232	93	0	70-130/30
108-90-7	Chlorobenzene	ND		250	229	92	220	88	4	70-130/30
75-00-3	Chloroethane	ND		250	245	98	233	93	5	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	241	96	235	94	3	70-130/30
67-66-3	Chloroform	ND		250	235	94	228	91	3	70-130/30
74-87-3	Chloromethane	ND		250	201	80	203	81	1	70-130/30
95-49-8	o-Chlorotoluene	ND		250	216	86	216	86	0	70-130/30
106-43-4	p-Chlorotoluene	ND		250	224	90	225	90	0	70-130/30
124-48-1	Dibromochloromethane	ND		250	288	115	289	116	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	226	90	226	90	0	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	226	90	227	91	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	242	97	244	98	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	239	96	232	93	3	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	255	102	247	99	3	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	224	90	222	89	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	249	100	242	97	3	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	221	88	217	87	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	221	88	216	86	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	236	94	230	92	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	245	98	241	96	2	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	208	83	199	80	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	246	98	242	97	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17884-4MS	N72543.D	5	01/31/13	KD	n/a	n/a	MSN2725
MC17884-4MSD	N72544.D	5	01/31/13	KD	n/a	n/a	MSN2725
MC17884-4	N72526.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Compound	MC17884-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		250	206	82	207	83	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	218	87	220	88	1	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1130	90	1080	86	5	70-130/30
97-63-2	Ethyl methacrylate	ND		250	234	94	236	94	1	72-139/30
100-41-4	Ethylbenzene	ND		250	228	91	222	89	3	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	230	92	239	96	4	70-130/30
591-78-6	2-Hexanone	ND		250	219	88	223	89	2	70-130/30
98-82-8	Isopropylbenzene	ND		250	225	90	225	90	0	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	246	98	245	98	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	194	78	192	77	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	199	80	202	81	1	70-130/30
74-95-3	Methylene bromide	ND		250	236	94	239	96	1	70-130/30
75-09-2	Methylene chloride	ND		250	239	96	230	92	4	70-130/30
91-20-3	Naphthalene	ND		250	222	89	237	95	7	70-130/30
103-65-1	n-Propylbenzene	ND		250	222	89	219	88	1	70-130/30
100-42-5	Styrene	ND		250	235	94	233	93	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	280	112	274	110	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	243	97	245	98	1	70-130/30
127-18-4	Tetrachloroethene	ND		250	269	108	261	104	3	70-130/30
108-88-3	Toluene	ND		250	232	93	227	91	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	229	92	239	96	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	227	91	235	94	3	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	244	98	238	95	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	231	92	230	92	0	70-130/30
79-01-6	Trichloroethene	ND		250	226	90	223	89	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	249	100	241	96	3	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	228	91	236	94	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	225	90	224	90	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	227	91	225	90	1	70-130/30
108-05-4	Vinyl Acetate	ND		250	260	104	255	102	2	70-130/30
75-01-4	Vinyl chloride	ND		250	227	91	221	88	3	70-130/30
	m,p-Xylene	ND		500	431	86	423	85	2	70-130/30
95-47-6	o-Xylene	ND		250	214	86	209	84	2	70-130/30
1330-20-7	Xylene (total)	ND		750	645	86	632	84	2	70-130/30

* = Ontside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17884-4MS	N72543.D	5	01/31/13	KD	n/a	n/a	MSN2725
MC17884-4MSD	N72544.D	5	01/31/13	KD	n/a	n/a	MSN2725
MC17884-4	N72526.D	1	01/31/13	KD	n/a	n/a	MSN2725

The QC reported here applies to the following samples: Method: SW846 8260B

MC17857-1, MC17857-2

CAS No.	Surrogate Recoveries	MS	MSD	MC17884-4	Limits
1868-53-7	Dibromofluoromethane	114%	112%	110%	70-130%
2037-26-5	Toluene-D8	112%	112%	110%	70-130%
460-00-4	4-Bromofluorobenzene	104%	106%	115%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSN2725-CC2707	Injection Date:	01/31/13
Lab File ID:	N72519.D	Injection Time:	10:01
Instrument ID:	GCMSN	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	677164	9.01	954725	9.88	480055	13.14	450860	15.70	223813	6.57
Upper Limit [a]	1354328	9.51	1909450	10.38	960110	13.64	901720	16.20	447626	7.07
Lower Limit [b]	338582	8.51	477363	9.38	240028	12.64	225430	15.20	111907	6.07
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN2725-BS	677164	9.01	954725	9.88	480055	13.14	450860	15.70	223813	6.57
MSN2725-BSD	632820	9.01	915363	9.88	459920	13.14	422574	15.70	232502	6.56
MSN2725-MB	659719	9.01	936474	9.88	440383	13.14	376510	15.70	211663	6.59
MC17857-2	646965	9.01	927962	9.88	438807	13.14	372362	15.70	208413	6.59
ZZZZZZ	660703	9.01	933461	9.88	440690	13.14	369765	15.70	231110	6.59
ZZZZZZ	645060	9.01	924409	9.88	437203	13.14	369040	15.70	214091	6.59
MC17884-4	644701	9.01	913525	9.88	433733	13.14	361564	15.70	212531	6.57
ZZZZZZ	640071	9.01	911933	9.88	437140	13.14	371252	15.70	194953	6.58
ZZZZZZ	638274	9.01	907631	9.88	425848	13.14	349216	15.70	198657	6.59
ZZZZZZ	631614	9.01	914952	9.88	436051	13.14	360011	15.70	231261	6.58
ZZZZZZ	644749	9.01	911654	9.88	428962	13.14	360843	15.70	208424	6.58
ZZZZZZ	633949	9.01	899964	9.88	432563	13.14	351063	15.70	205125	6.59
ZZZZZZ	640117	9.01	908981	9.88	438508	13.14	360441	15.70	180800	6.58
ZZZZZZ	576648	9.01	824803	9.88	394079	13.14	313690	15.70	162521	6.58
ZZZZZZ	621840	9.01	876196	9.88	423246	13.14	383589	15.70	251426	6.58
ZZZZZZ	647751	9.01	922358	9.88	449888	13.14	416779	15.70	224803	6.56
ZZZZZZ	633381	9.01	900742	9.88	436675	13.14	402358	15.70	181727	6.57
ZZZZZZ	638754	9.01	907094	9.88	450824	13.14	435502	15.70	203691	6.56
ZZZZZZ	697684	9.01	984775	9.88	477769	13.14	467813	15.70	245121	6.56
MC17857-1	698305	9.01	996101	9.88	480217	13.14	431808	15.70	238633	6.57
ZZZZZZ	696947	9.01	1004806	9.88	464507	13.14	421347	15.70	231114	6.57
ZZZZZZ	622415	9.01	909030	9.88	423381	13.14	379708	15.70	210912	6.57
MC17884-4MS	701778	9.01	1004412	9.88	501952	13.14	475983	15.70	239443	6.56
MC17884-4MSD	716763	9.01	1014942	9.88	511405	13.14	474740	15.70	231396	6.56

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17857-1	N72540.D	107.0	110.0	110.0
MC17857-2	N72523.D	109.0	110.0	114.0
MC17884-4MS	N72543.D	114.0	112.0	104.0
MC17884-4MSD	N72544.D	112.0	112.0	106.0
MSN2725-BS	N72519.D	112.0	111.0	106.0
MSN2725-BSD	N72520.D	117.0	112.0	106.0
MSN2725-MB	N72522.D	108.0	110.0	114.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.5.1

6

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31849-MB	U12114.D	1	02/05/13	NS	01/31/13	OP31849	MSU629

The QC reported here applies to the following samples: Method: SW846 8270C

MC17857-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ng/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ng/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31849-MB	U12114.D	1	02/05/13	NS	01/31/13	OP31849	MSU629

The QC reported here applies to the following samples: Method: SW846 8270C

MC17857-1

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	23%	15-110%
4165-62-2	Phenol-d5	16%	15-110%
118-79-6	2,4,6-Tribromophenol	45%	15-110%
4165-60-0	Nitrobenzene-d5	46%	30-130%
321-60-8	2-Fluorobiphenyl	47%	30-130%
1718-51-0	Terphenyl-d14	62%	30-130%

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

Method Blank Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31850-MB	U12072.D	1	02/01/13	NS	01/31/13	OP31850	MSU627

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17857-1

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.017	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.038	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.059	ug/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.046	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.036	ng/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	25%	15-110%
4165-62-2	Phenol-d5	19%	15-110%
118-79-6	2,4,6-Tribromophenol	48%	15-110%
4165-60-0	Nitrobenzene-d5	49%	30-130%
321-60-8	2-Fluorobiphenyl	55%	30-130%
1718-51-0	Terphenyl-d14	75%	30-130%

Blank Spike Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31849-BS	U12115.D	1	02/05/13	NS	01/31/13	OP31849	MSU629

The QC reported here applies to the following samples: Method: SW846 8270C

MC17857-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	32.4	32	30-130
95-57-8	2-Chlorophenol	100	49.0	49	30-130
59-50-7	4-Chloro-3-methyl phenol	100	62.8	63	30-130
120-83-2	2,4-Dichlorophenol	100	57.8	58	30-130
105-67-9	2,4-Dimethylphenol	100	28.4	28* a	30-130
51-28-5	2,4-Dinitrophenol	100	90.3	90	30-130
534-52-1	4,6-Dinitro-o-cresol	100	78.5	79	30-130
95-48-7	2-Methylphenol	100	43.1	43	30-130
	3&4-Methylphenol	200	86.6	43	30-130
88-75-5	2-Nitrophenol	100	58.2	58	30-130
100-02-7	4-Nitrophenol	100	38.4	38	30-130
87-86-5	Pentachlorophenol	100	78.8	79	30-130
108-95-2	Phenol	100	22.6	23* a	30-130
95-95-4	2,4,5-Trichlorophenol	100	69.6	70	30-130
88-06-2	2,4,6-Trichlorophenol	100	67.0	67	30-130
62-53-3	Aniline	50	13.0	26* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	38.2	76	40-140
85-68-7	Butyl benzyl phthalate	50	37.2	74	40-140
100-51-6	Benzyl Alcohol	50	27.9	56	40-140
91-58-7	2-Chloronaphthalene	50	33.1	66	40-140
106-47-8	4-Chloroaniline	50	20.8	42	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	28.2	56	40-140
111-44-4	bis(2-Chloroethyl)ether	50	22.9	46	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	33.2	66	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	38.2	76	40-140
122-66-7	1,2-Diphenylhydrazine	50	36.7	73	40-140
121-14-2	2,4-Dinitrotoluene	50	42.8	86	40-140
606-20-2	2,6-Dinitrotolueue	50	38.3	77	40-140
91-94-1	3,3'-Dichlorobenzidine	50	34.0	68	40-140
132-64-9	Dibenzofuran	50	37.2	74	40-140
84-74-2	Di-n-butyl phthalate	50	36.5	73	40-140
117-84-0	Di-n-octyl phthalate	50	45.9	92	40-140
84-66-2	Diethyl phthalate	50	38.9	78	40-140
131-11-3	Dimethyl phthalate	50	22.7	45	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	41.0	82	40-140
118-74-1	Hexachlorobenzene	50	41.1	82	40-140

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31849-BS	U12115.D	1	02/05/13	NS	01/31/13	OP31849	MSU629

The QC reported here applies to the following samples: Method: SW846 8270C

MC17857-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	14.8	30* a	40-140
67-72-1	Hexachloroethane	50	24.3	49	40-140
78-59-1	Isophorone	50	33.9	68	40-140
88-74-4	2-Nitroaniline	50	39.8	80	40-140
99-09-2	3-Nitroaniline	50	30.2	60	40-140
100-01-6	4-Nitroaniline	50	38.3	77	40-140
98-95-3	Nitrobenzene	50	30.4	61	40-140
62-75-9	n-Nitrosodimethylamine	50	20.0	40	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	29.9	60	40-140
86-30-6	N-Nitrosodiphenylamine	50	39.3	79	40-140
110-86-1	Pyridine	50	16.1	32* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	32%	15-110%
4165-62-2	Phenol-d5	24%	15-110%
118-79-6	2,4,6-Tribromophenol	74%	15-110%
4165-60-0	Nitrobenzene-d5	60%	30-130%
321-60-8	2-Flnorobiphenyl	65%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Ontside of Control Limits.

Blank Spike Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31850-BS	U12073.D	1	02/01/13	NS	01/31/13	OP31850	MSU627

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17857-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	38.2	76	40-140
208-96-8	Acenaphthylene	50	27.8	56	40-140
120-12-7	Anthracene	50	41.5	83	40-140
56-55-3	Benzo(a)anthracene	50	45.8	92	40-140
50-32-8	Benzo(a)pyrene	50	40.5	81	40-140
205-99-2	Benzo(b)fluoranthene	50	40.4	81	40-140
191-24-2	Benzo(g,h,i)perylene	50	42.2	84	40-140
207-08-9	Benzo(k)fluoranthene	50	44.8	90	40-140
218-01-9	Chrysene	50	45.2	90	40-140
53-70-3	Dibenzo(a,h)anthracene	50	42.5	85	40-140
206-44-0	Fluoranthene	50	46.6	93	40-140
86-73-7	Fluorene	50	38.8	78	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.7	83	40-140
90-12-0	1-Methylnaphthalene	50	35.0	70	40-140
91-57-6	2-Methylnaphthalene	50	32.9	66	40-140
85-01-8	Phenanthrene	50	43.0	86	40-140
129-00-0	Pyrene	50	43.8	88	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	34%	15-110%
4165-62-2	Phenol-d5	25%	15-110%
118-79-6	2,4,6-Tribromophenol	73%	15-110%
4165-60-0	Nitrobenzene-d5	63%	30-130%
321-60-8	2-Fluorobiphenyl	71%	30-130%
1718-51-0	Terphenyl-d14	91%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31849-MS	U12116.D	1	02/05/13	NS	01/31/13	OP31849	MSU629
OP31849-MSD	U12117.D	1	02/05/13	NS	01/31/13	OP31849	MSU629
MC17900-5	U12118.D	1	02/05/13	NS	01/31/13	OP31849	MSU629

The QC reported here applies to the following samples: Method: SW846 8270C

MC17857-1

CAS No.	Compound	MC17900-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		100	29.4	29* [a]	34.0	34	15	30-130/20
95-57-8	2-Chlorophenol	ND		100	47.2	47	61.2	61	26* [b]	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	58.7	59	70.4	70	18	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	53.7	54	71.6	72	29* [b]	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	28.0	28* [c]	32.4	32	15	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	88.6	89	94.5	95	6	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	75.2	75	82.5	83	9	30-130/20
95-48-7	2-Methylphenol	ND		100	41.5	42	53.8	54	26* [b]	30-130/20
	3&4-Methylphenol	ND		200	85.7	43	110	55	25* [b]	30-130/20
88-75-5	2-Nitrophenol	ND		100	55.0	55	73.1	73	28* [b]	30-130/20
100-02-7	4-Nitrophenol	ND		100	33.4	33	38.1	38	13	30-130/20
87-86-5	Pentachlorophenol	ND		100	75.8	76	80.9	81	7	30-130/20
108-95-2	Phenol	ND		100	21.4	21* [c]	28.5	29* [c]	28* [c]	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	64.8	65	76.2	76	16	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	61.8	62	74.2	74	18	30-130/20
62-53-3	Aniline	ND		50	13.0	26* [c]	13.9	28* [c]	7	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	37.8	76	41.5	83	9	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	34.5	69	38.6	77	11	40-140/20
100-51-6	Benzyl Alcohol	ND		50	27.5	55	35.0	70	24* [b]	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	31.3	63	38.8	78	21* [b]	40-140/20
106-47-8	4-Chloroaniline	ND		50	20.7	41	21.6	43	4	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	26.6	53	34.8	70	27* [b]	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	22.5	45	28.9	58	25* [b]	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	31.9	64	42.4	85	28* [b]	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	36.1	72	41.4	83	14	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	35.7	71	39.6	79	10	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	39.9	80	43.6	87	9	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	36.6	73	40.4	81	10	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	32.3	65	33.0	66	2	40-140/20
132-64-9	Dibenzofuran	ND		50	35.5	71	40.9	82	14	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	35.3	71	37.9	76	7	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	42.7	85	46.7	93	9	40-140/20
84-66-2	Diethyl phthalate	ND		50	36.4	73	39.2	78	7	40-140/20
131-11-3	Dimethyl phthalate	ND		50	19.4	39* [a]	23.7	47	20	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	39.4	79	42.8	86	8	40-140/20
118-74-1	Hexachlorobenzene	ND		50	38.9	78	42.4	85	9	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31849-MS	U12116.D	1	02/05/13	NS	01/31/13	OP31849	MSU629
OP31849-MSD	U12117.D	1	02/05/13	NS	01/31/13	OP31849	MSU629
MC17900-5	U12118.D	1	02/05/13	NS	01/31/13	OP31849	MSU629

The QC reported here applies to the following samples: Method: SW846 8270C

MC17857-1

CAS No.	Compound	MC17900-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	13.8	28* [c]	18.2	36* [c]	28* [c]	40-140/20
67-72-1	Hexachloroethane	ND		50	23.0	46	32.1	64	33* [b]	40-140/20
78-59-1	Isophorone	ND		50	32.5	65	40.9	82	23* [b]	40-140/20
88-74-4	2-Nitroaniline	ND		50	38.2	76	43.0	86	12	40-140/20
99-09-2	3-Nitroaniline	ND		50	28.6	57	28.6	57	0	40-140/20
100-01-6	4-Nitroaniline	ND		50	36.0	72	38.1	76	6	40-140/20
98-95-3	Nitrobenzene	ND		50	28.9	58	37.7	75	26* [b]	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	18.5	37* [a]	24.5	49	28* [b]	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	29.3	59	38.3	77	27* [b]	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	37.9	76	40.9	82	8	40-140/20
110-86-1	Pyridine	ND		50	14.4	29* [c]	19.8	40	32* [c]	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17900-5	Limits
367-12-4	2-Fluorophenol	30%	41%	33%	15-110%
4165-62-2	Phenol-d5	23%	30%	24%	15-110%
118-79-6	2,4,6-Tribromophenol	71%	79%	63%	15-110%
4165-60-0	Nitrobenzene-d5	56%	73%	68%	30-130%
321-60-8	2-Fluorobiphenyl	60%	76%	70%	30-130%
1718-51-0	Terphenyl-d14	77%	82%	77%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.
(c) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31850-MS	U12074.D	1	02/01/13	NS	01/31/13	OP31850	MSU627
OP31850-MSD	U12075.D	1	02/01/13	NS	01/31/13	OP31850	MSU627
MC17900-4	U12076.D	1	02/01/13	NS	01/31/13	OP31850	MSU627

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17857-1

CAS No.	Compound	MC17900-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	37.3	75	43.3	87	15	40-140/20
208-96-8	Acenaphthylene	ND		50	27.0	54	31.6	63	16	40-140/20
120-12-7	Anthracene	ND		50	39.7	79	42.3	85	6	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	43.2	86	46.4	93	7	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	38.3	77	40.8	82	6	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	39.2	78	41.3	83	5	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	40.4	81	42.9	86	6	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	41.4	83	45.0	90	8	40-140/20
218-01-9	Chrysene	ND		50	42.7	85	45.6	91	7	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	40.0	80	43.0	86	7	40-140/20
206-44-0	Fluoranthene	ND		50	44.0	88	47.2	94	7	40-140/20
86-73-7	Flnorene	ND		50	38.3	77	42.3	85	10	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.3	79	42.5	85	8	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	33.8	68	41.9	84	21* [a]	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	31.3	63	39.6	79	23* [a]	40-140/20
85-01-8	Phenanthrene	ND		50	41.1	82	44.2	88	7	40-140/20
129-00-0	Pyrene	ND		50	42.4	85	45.1	90	6	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17900-4	Limits
367-12-4	2-Fluorophenol	31%	42%		15-110%
4165-62-2	Phenol-d5	24%	31%		15-110%
118-79-6	2,4,6-Tribromophenol	69%	75%		15-110%
4165-60-0	Nitrobenzene-d5	60%	76%	72%	30-130%
321-60-8	2-Fluorobiphenyl	67%	85%	78%	30-130%
1718-51-0	Terphenyl-d14	86%	93%	90%	30-130%

(a) High RPD due to possible matrix interference and/or sample uon-homogeneity.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU627-CC609	Injection Date:	02/01/13
Lab File ID:	U12064.D	Injection Time:	15:16
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	125959	3.34	312437	4.31	161792	5.72	282999	6.97	198588	9.74	384093	11.14
Upper Limit [a]	251918	3.84	624874	4.81	323584	6.22	565998	7.47	397176	10.24	768186	11.64
Lower Limit [b]	62980	2.84	156219	3.81	80896	5.22	141500	6.47	99294	9.24	192047	10.64

Lab Sample ID	IS 1 AREA	RT	1S 2 AREA	RT	1S 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	1S 6 AREA	RT
OP31844-MB	142749	3.34	357850	4.31	182674	5.72	313282	6.97	222769	9.74	410936	11.14
OP31844-BS	137234	3.34	338876	4.31	172304	5.72	298235	6.98	198323	9.74	386569	11.14
OP31844-MS	121263	3.34	299808	4.31	152400	5.72	268253	6.97	187541	9.74	359919	11.14
OP31844-MSD	120288	3.34	298626	4.31	150440	5.72	259358	6.97	188314	9.74	361873	11.14
MC17801-2	121593	3.34	303977	4.31	153606	5.72	260277	6.97	189761	9.73	353047	11.14
ZZZZZZ	120946	3.34	276103	4.32	140758	5.74	255188	6.99	203516	9.74	365898	11.14
OP31850-MB	117376	3.34	298158	4.31	158367	5.72	274147	6.97	201733	9.74	381643	11.14
OP31850-BS	121098	3.34	300872	4.31	158542	5.72	278637	6.97	189957	9.74	377013	11.14
OP31850-MS	114239	3.34	288956	4.31	150497	5.72	267396	6.98	181430	9.74	357490	11.14
OP31850-MSD	118737	3.34	298647	4.31	154203	5.72	273443	6.98	186234	9.74	364260	11.14
MC17900-4	120321	3.34	307535	4.31	159688	5.72	276550	6.97	206609	9.73	388653	11.14
ZZZZZZ	118819	3.34	301679	4.31	154791	5.72	268501	6.97	200320	9.74	376630	11.14
ZZZZZZ	118859	3.34	300038	4.31	158479	5.72	272901	6.97	198388	9.74	373238	11.14
ZZZZZZ	120673	3.34	305106	4.31	160338	5.72	277198	6.97	203160	9.74	375854	11.14
ZZZZZZ	120833	3.34	304188	4.31	161182	5.72	274316	6.97	202197	9.74	378211	11.14
ZZZZZZ	120450	3.34	302350	4.31	157994	5.72	274886	6.97	202049	9.74	380017	11.14
ZZZZZZ	118269	3.34	295596	4.31	156168	5.72	267084	6.97	194431	9.74	367752	11.14
ZZZZZZ	126544	3.34	315438	4.31	161454	5.72	279434	6.97	204749	9.73	383904	11.14
ZZZZZZ	119050	3.35	300073	4.32	154831	5.72	280125	6.97	202690	9.74	380203	11.14
ZZZZZZ	121954	3.35	297144	4.32	158632	5.72	278928	6.97	204511	9.74	385066	11.14
ZZZZZZ	125050	3.34	315327	4.31	164324	5.72	284833	6.97	207048	9.74	390149	11.14
ZZZZZZ	122831	3.34	301000	4.31	156102	5.72	278145	6.97	203917	9.74	384840	11.14
ZZZZZZ	125185	3.35	309863	4.32	158617	5.72	283053	6.97	207016	9.74	390166	11.15
ZZZZZZ	119016	3.34	289808	4.31	152492	5.72	269860	6.97	201118	9.74	369155	11.14
ZZZZZZ	127160	3.34	319968	4.31	166295	5.72	285492	6.97	208742	9.74	396971	11.14
ZZZZZZ	122062	3.34	310459	4.31	157804	5.72	272944	6.97	201460	9.74	378110	11.14
MC17857-1	114584	3.34	291854	4.31	148446	5.72	264150	6.97	195221	9.74	371516	11.14

1S 1 = 1,4-Dichlorobenzene-d4
1S 2 = Naphthalene-d8
1S 3 = Acenaphthene-D10
1S 4 = Phenanthrene-d10
1S 5 = Chrysene-d12
1S 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU627-CC609	Injection Date:	02/01/13
Lab File ID:	U12064.D	Injection Time:	15:16
Instrument ID:	GCMSU	Method:	SW846 8270C BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU629-CC623	Injection Date:	02/05/13
Lab File ID:	U12113.D	Injection Time:	08:54
Instrument ID:	GCMSU	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	88722	3.34	319330	4.32	192767	5.72	343424	6.98	364289	9.78	355584	11.33
Upper Limit [a]	177444	3.84	638660	4.82	385534	6.22	686848	7.48	728578	10.28	711168	11.83
Lower Limit [b]	44361	2.84	159665	3.82	96384	5.22	171712	6.48	182145	9.28	177792	10.83

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	1S 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31849-MB	111153	3.34	404170	4.31	245272	5.72	439416	6.97	483347	9.77	453141	11.33
OP31849-BS	117416	3.34	422164	4.32	248660	5.72	444837	6.98	491626	9.77	457805	11.33
OP31849-MS	110056	3.34	406458	4.32	242972	5.72	421634	6.98	462362	9.77	435479	11.33
OP31849-MSD	114166	3.34	409703	4.32	245802	5.72	428701	6.98	464990	9.77	445043	11.33
MC17900-5	119117	3.34	436042	4.31	264108	5.72	466309	6.97	519739	9.77	482623	11.33
ZZZZZZ	125864	3.34	452283	4.31	277362	5.72	491323	6.97	543433	9.77	513224	11.33
ZZZZZZ	126174	3.34	458117	4.31	270739	5.72	482493	6.97	521724	9.77	487989	11.33
ZZZZZZ	113495	3.34	415397	4.31	248564	5.72	434261	6.97	495354	9.77	454769	11.33
ZZZZZZ	114526	3.34	414454	4.31	253360	5.72	446300	6.97	493526	9.77	457255	11.32
ZZZZZZ	112625	3.34	405266	4.31	249113	5.72	437908	6.97	494579	9.77	455489	11.33
ZZZZZZ	109638	3.34	402361	4.31	246331	5.72	438461	6.97	482206	9.77	444102	11.33
ZZZZZZ	112444	3.34	409814	4.31	251915	5.72	440821	6.97	488448	9.77	453781	11.33
ZZZZZZ	112242	3.34	418683	4.31	253056	5.72	439503	6.97	495415	9.77	458477	11.33
ZZZZZZ	118035	3.34	427405	4.31	259467	5.72	459432	6.97	515832	9.77	477671	11.33
ZZZZZZ	100383	3.34	367174	4.32	229165	5.72	409783	6.97	463841	9.77	427656	11.33
ZZZZZZ	123188	3.35	437637	4.32	275504	5.72	503504	6.97	574143	9.77	528045	11.33
ZZZZZZ	134261	3.34	477376	4.31	290806	5.72	517097	6.97	577884	9.77	545526	11.33
ZZZZZZ	110199	3.34	407444	4.31	241927	5.72	437630	6.97	503574	9.77	467028	11.33
ZZZZZZ	119105	3.35	430251	4.32	258820	5.72	444482	6.97	500847	9.77	449141	11.33
ZZZZZZ	140610	3.34	493493	4.32	300781	5.73	559748	6.98	642271	9.77	574405	11.33
MC17857-1	110746	3.34	406761	4.32	245277	5.72	432487	6.97	500962	9.77	469112	11.33
ZZZZZZ	115258	3.34	423653	4.31	256419	5.72	459066	6.97	511863	9.77	475285	11.33
ZZZZZZ	124436	3.34	450353	4.31	268297	5.72	477646	6.97	540060	9.77	509799	11.33
ZZZZZZ	123288	3.34	448462	4.31	275917	5.72	485857	6.97	545725	9.77	516048	11.33
MC17859-2	100190	3.34	365144	4.31	230308	5.72	393640	6.97	435513	9.77	412659	11.33

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17857-1	U12134.D	33.0	32.0	78.0	66.0	68.0	48.0
OP31849-BS	U12115.D	32.0	24.0	74.0	60.0	65.0	81.0
OP31849-MB	U12114.D	23.0	16.0	45.0	46.0	47.0	62.0
OP31849-MS	U12116.D	30.0	23.0	71.0	56.0	60.0	77.0
OP31849-MSD	U12117.D	41.0	30.0	79.0	73.0	76.0	82.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17857-1	U12092.D	31.0	31.0	74.0	68.0	76.0	60.0
OP31850-BS	U12073.D	34.0	25.0	73.0	63.0	71.0	91.0
OP31850-MB	U12072.D	25.0	19.0	48.0	49.0	55.0	75.0
OP31850-MS	U12074.D	31.0	24.0	69.0	60.0	67.0	86.0
OP31850-MSD	U12075.D	42.0	31.0	75.0	76.0	85.0	93.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

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GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Snrrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-MB	YZ78243.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17857-1, MC17857-3

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	105%	36-173%
460-00-4	Bromofluorobenzene (S)	98%	36-173%

Blank Spike Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-BS	YZ78244.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17857-1, MC17857-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.063	89	60-140
106-93-4	1,2-Dibromoethane	0.071	0.065	92	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	36-173%
460-00-4	Bromofluorobenzene (S)	95%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-MS	YZ78245.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
OP31861-MSD	YZ78246.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
MC17900-9	YZ78247.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17857-1, MC17857-3

CAS No.	Compound	MC17900-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.066	93	0.071	100	7	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.077	108	0.089	125	14	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17900-9	Limits
460-00-4	Bromofluorobenzene (S)	112%	107%	97%	36-173%
460-00-4	Bromofluorobenzene (S)	99%	96%	92%	36-173%

* = Outside of Control Limits.

8.3.1

8

Volatile Surrogate Recovery Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17857-1	YZ78262.D	100.0	81.0
MC17857-3	YZ78263.D	90.0	87.0
OP31861-BS	YZ78244.D	101.0	95.0
OP31861-MB	YZ78243.D	105.0	98.0
OP31861-MS	YZ78245.D	112.0	99.0
OP31861-MSD	YZ78246.D	107.0	96.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

8

GC Surrogate Retention Time Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7036-ICC7036	Injection Date:	02/06/13
Lab File ID:	YZ78238.D	Injection Time:	02:26
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	5.12	4.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	YZ78241A.D	02/06/13	03:47	5.12	4.84
OP31861-MB	YZ78243.D	02/06/13	04:42	5.12	4.84
OP31861-BS	YZ78244.D	02/06/13	05:09	5.12	4.84
OP31861-MS	YZ78245.D	02/06/13	05:37	5.12	4.84
OP31861-MSD	YZ78246.D	02/06/13	06:04	5.12	4.84
MC17900-9	YZ78247.D	02/06/13	06:31	5.12	4.84
ZZZZZZ	YZ78248.D	02/06/13	06:59	5.12	4.84
ZZZZZZ	YZ78249.D	02/06/13	07:26	5.12	4.84
ZZZZZZ	YZ78250.D	02/06/13	07:54	5.12	4.84
ZZZZZZ	YZ78251.D	02/06/13	08:21	5.12	4.84
ZZZZZZ	YZ78252.D	02/06/13	08:48	5.12	4.84

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.1

GC Surrogate Retention Time Summary

Job Number: MC17857
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7036-CC7036	Injection Date:	02/06/13
Lab File ID:	YZ78253.D	Injection Time:	09:15
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	5.12	4.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	YZ78254.D	02/06/13	09:42	5.12	4.84
ZZZZZZ	YZ78255.D	02/06/13	10:09	5.12	4.84
ZZZZZZ	YZ78256.D	02/06/13	10:36	5.12	4.84
ZZZZZZ	YZ78257.D	02/06/13	11:03	5.12	4.84
ZZZZZZ	YZ78258.D	02/06/13	11:30	5.12	4.84
ZZZZZZ	YZ78259.D	02/06/13	11:57	5.12	4.84
ZZZZZZ	YZ78260.D	02/06/13	12:24	5.12	4.84
ZZZZZZ	YZ78261.D	02/06/13	12:51	5.12	4.84
MC17857-1	YZ78262.D	02/06/13	13:18	5.12	4.84
MC17857-3	YZ78263.D	02/06/13	13:44	5.12	4.84

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.2

8

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC17906

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 2/21/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
TB-ROX-013013-HCL	TB-ROX-013013-ST
P59-ROX-013013	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that VOC LCS/LCSD and SVOC LCS recoveries were outside evaluation criteria. PAHs were detected in the method blank. Sample P59-ROX-013013 was diluted due to high levels of VOC target analytes. These issues are addressed further in the appropriate sections below.

The cooler receipt did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration/ Amount
OP31876-MB	PAHs	Benzo(a)anthracene	0.22 ug/L
OP31876-MB	PAHs	Benzo(a)pyrene	0.055 ug/L
OP31876-MB	PAHs	Benzo(b)fluoranthene	0.092 ug/L
OP31876-MB	PAHs	Benzo(g,h,i)perylene	0.052 ug/L
OP31876-MB	PAHs	Benzo(k)fluoranthene	0.080 ug/L
OP31876-MB	PAHs	Chrysene	0.11 ug/L
OP31876-MB	PAHs	Dibenzo(a,h)anthracene	0.053 ug/L
OP31876-MB	PAHs	Fluoranthene	0.081 ug/L
OP31876-MB	PAHs	Indeno(1,2,3-cd)pyrene	0.057 ug/L
OP31876-MB	PAHs	Pyrene	0.079 ug/L

Qualifications due to blank contamination are included in the table below. Analytical data reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New RL	Qualification
P59-ROX-013013	PAHs	Fluoranthene	-	**U**
P59-ROX-013013	PAHs	Pyrene	0.11 ug/L	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSN2726-BS/BSD	VOCs	Acrylonitrile	**400/382**	5	70-130/25
MSN2726-BS/BSD	VOCs	Methyl tert butyl ether	74/**66**	12	70-130/25
MSN2726-BS/BSD	VOCs	4-Methyl-2-pentanone (MIBK)	72/**68**	6	70-130/25
OP31875-BS	SVOCs	4-Nitrophenol	**27**	NA	30-130
OP31875-BS	SVOCs	Phenol	**29**	NA	30-130
OP31875-BS	SVOCs	Aniline	**33**	NA	40-140
OP31875-BS	SVOCs	Dimethyl phthalate	**17**	NA	40-140
OP31875-BS	SVOCs	Hexachlorocyclopentadiene	**24**	NA	40-140
OP31875-BS	SVOCs	3-Nitroaniline	**39**	NA	40-140
OP31875-BS	SVOCs	n-Nitrosodimethylamine	**38**	NA	40-140
OP31875-BS	SVOCs	Pyridine	**30**	NA	40-140

Analytical data that required qualification based on LCS data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. LCS/LSCD MSN2726-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
P59-ROX-013013	VOCs	Methyl tert butyl ether	**UJ**
P59-ROX-013013	VOCs	4-Methyl-2-pentanone (MIBK)	**UJ**
P59-ROX-013013	SVOCs	4-Nitrophenol	**UJ**
P59-ROX-013013	SVOCs	Phenol	**J**
P59-ROX-013013	SVOCs	Aniline	**UJ**
P59-ROX-013013	SVOCs	Dimethyl phthalate	**UJ**
P59-ROX-013013	SVOCs	Hexachlorocyclopentadiene	**UJ**
P59-ROX-013013	SVOCs	3-Nitroaniline	**UJ**
P59-ROX-013013	SVOCs	n-Nitrosodimethylamine	**UJ**
P59-ROX-013013	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

No

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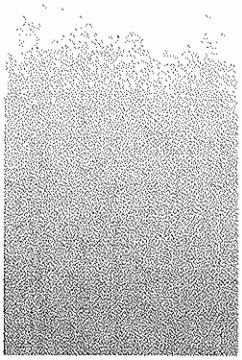
02/18/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC17906

Sampling Date: 01/30/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Reviewed on 2/21/2013

Total number of pages in report: **58**

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.

Reza Tand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Sections: 1 2 3 4 5 6 7 8

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **6**
Section 4: Sample Results **7**
4.1: MC17906-1: TB-ROX-013013-HCL 8
4.2: MC17906-2: TB-ROX-013013-ST 11
4.3: MC17906-3: P59-ROX-013013 12
Section 5: Misc. Forms **19**
5.1: Chain of Custody 20
5.2: Sample Tracking Chronicle 22
5.3: Internal Chain of Custody 23
Sectiou 6: GC/MS Volatiles - QC Data Summaries **24**
6.1: Method Blank Summary 25
6.2: Blank Spike/Blank Spike Duplicate Summary 28
6.3: Matrix Spike/Matrix Spike Duplicate Summary 31
6.4: Internal Standard Area Summaries 34
6.5: Surrogate Recovery Summaries 35
Section 7: GC/MS Semi-volatiles - QC Data Summaries **36**
7.1: Method Blank Summary 37
7.2: Blank Spike Summary 40
7.3: Matrix Spike/Matrix Spike Duplicate Summary 43
7.4: Internal Standard Area Summaries 46
7.5: Surrogate Recovery Summaries 50
Section 8: GC Volatiles - QC Data Summaries **52**
8.1: Method Blank Summary 53
8.2: Blank Spike Summary 54
8.3: Matrix Spike/Matrix Spike Duplicate Summary 55
8.4: Surrogate Recovery Summaries 56
8.5: GC Surrogate Retention Time Summaries 57

Sample Summary

Shell Oil

Job No: MC17906

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC17906-1	01/30/13	00:00	DMAD	01/31/13	AQ	Trip Blank Water	TB-ROX-013013-HCL
MC17906-2	01/30/13	00:00	DMAD	01/31/13	AQ	Trip Blank Water	TB-ROX-013013-ST
MC17906-3	01/30/13	12:50	DMAD	01/31/13	AQ	Ground Water	P59-ROX-013013

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC17906
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	**Report Date**	2/15/2013 10:43:57 AM

1 Sample and 2 Trip Blank(s) were collected on 01/30/2013 and were received at Accutest on 01/31/2013 properly preserved, at 3.3 Deg. C and intact. These Samples received an Accutest job number of MC17906. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane, Benzenethiol, Dibenz(a,h)acridine, Indene, and Quinoline were searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSN2726

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17889-1MS, MC17889-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Duplicate Recovery(s) for Methyl Tert Butyl Ether, 4-Methyl-2-pentanone (MIBK) are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Hexanone, 4-Methyl-2-pentanone (MIBK), Dichlorodifluoromethane, Methyl Tert Butyl Ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Dichlorodifluoromethane are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MSN2726-BS, MC17889-1MS, MC17889-1MSD for Acrylonitrile: Outside control limits. Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ **Batch ID:** OP31875

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17889-1MS, MC17889-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 3-Nitroaniline, 4-Nitrophenol, Aniline, Dimethyl phthalate, Hexachlorocyclopentadiene, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 3-Nitroaniline, 4-Chloroaniline, Aniline, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Duplicate Recovery(s) for 3-Nitroaniline, Aniline, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- RPD(s) for MSD for Diethyl phthalate, Dimethyl phthalate are outside control limits for sample OP31875-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MS/MSD Recovery(s) for 4-Chloroaniline: Outside control limits due to possible matrix interference. Refer to Blank Spike.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP31876

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC17900-15MS, MC17900-15MSD were used as the QC samples indicated.
- Sample(s) MC17906-3 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- Calibration standard MSU623-ICC623, MSU625-ICV623, MSU626-ICV623, MSU631-CC623 not associated with this job.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP31861

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC17900-9MS, MC17900-9MSD were used as the QC samples indicated.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC17906).

Summary of Hits

Job Number: MC17906
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 01/30/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC17906-1	TB-ROX-013013-HCL					
No hits reported in this sample.						
MC17906-2	TB-ROX-013013-ST					
No hits reported in this sample.						
MC17906-3	P59-ROX-013013					
Benzene		12100	25	12	ug/l	SW846 8260B
Ethylbenzene		1900	50	25	ng/l	SW846 8260B
Isopropylbenzene		45.5 J	250	25	ug/l	SW846 8260B
Naphthalene		376	250	25	ug/l	SW846 8260B
n-Propylbenzene		85.0 J	250	29	ug/l	SW846 8260B
Toluene		296	50	25	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		563	250	17	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		49.1 J	250	23	ng/l	SW846 8260B
m,p-Xylene		4190	50	37	ug/l	SW846 8260B
o-Xylene		264	50	29	ug/l	SW846 8260B
Xylene (total)		4450	50	29	ug/l	SW846 8260B
2,4-Dimethylphenol		58.1	10	1.6	ug/l	SW846 8270C
2-Methylphenol		154	10	2.0	ug/l	SW846 8270C
3&4-Methylphenol		107	10	1.0	ug/l	SW846 8270C
Phenol		141	5.2	1.0	ug/l	SW846 8270C
Di-n-butyl phthalate		2.2 J	5.2	0.56	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		4.1	2.1	0.48	ng/l	SW846 8270C
Acenaphthene		0.47	0.10	0.014	ng/l	SW846 8270C BY SIM
Anthracene		0.12	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluoranthene		0.079 JB	0.10	0.034	ug/l	SW846 8270C BY SIM
Fluorene		0.69	0.10	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		22.2	0.21	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		30.5	0.21	0.054	ug/l	SW846 8270C BY SIM
Phenanthrene		1.0	0.052	0.013	ng/l	SW846 8270C BY SIM
Pyrene		0.11 B	0.10	0.037	ug/l	SW846 8270C BY SIM

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TB-ROX-013013-HCL		
Lab Sample ID:	MC17906-1	Date Sampled:	01/30/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/31/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N72555.D	1	02/01/13	KD	n/a	n/a	MSN2726
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethaue	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-013013-HCL		
Lab Sample ID:	MC17906-1	Date Sampled:	01/30/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/31/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ng/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorohenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ng/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylhenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-ROX-013013-HCL		
Lab Sample ID:	MC17906-1	Date Sampled:	01/30/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/31/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		70-130%
2037-26-5	Toluene-D8	111%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-013013-ST		
Lab Sample ID:	MC17906-2	Date Sampled:	01/30/13
Matrix:	AQ - Trip Blank Water	Date Received:	01/31/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78265.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	35.5 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	103%		36-173%
460-00-4	Bromofluorobenzene (S)	96%		36-173%

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

Report of Analysis

Client Sample ID:	P59-ROX-013013		
Lab Sample ID:	MC17906-3	Date Sampled:	01/30/13
Matrix:	AQ - Ground Water	Date Received:	01/31/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N72566.D	50	02/01/13	KD	n/a	n/a	MSN2726
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	250	150	ug/l	
107-02-8	Acrolein	ND	1300	510	ug/l	
107-13-1	Acrylonitrile	ND	250	160	ug/l	
71-43-2	Benzene	12100	25	12	ug/l	
108-86-1	Bromobenzene	ND	250	31	ug/l	
74-97-5	Bromochloromethane	ND	250	63	ug/l	
75-27-4	Bromodichloromethane	ND	50	29	ug/l	
75-25-2	Bromoform	ND	50	39	ug/l	
74-83-9	Bromomethane	ND	100	51	ug/l	
78-93-3	2-Bntanone (MEK)	ND	250	120	ug/l	
104-51-8	n-Butylbenzene	ND	250	30	ug/l	
135-98-8	sec-Butylbenzene	ND	250	28	ug/l	
98-06-6	tert-Butylbenzene	ND	250	32	ug/l	
75-15-0	Carbon disulfide	ND	250	31	ug/l	
56-23-5	Carbon tetrachloride	ND	50	43	ug/l	
108-90-7	Chlorobenzene	ND	50	23	ug/l	
75-00-3	Chloroethane	ND	100	25	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	250	63	ug/l	
67-66-3	Chloroform	ND	50	25	ug/l	
74-87-3	Chloromethane	ND	100	37	ug/l	
95-49-8	o-Chlorotoluene	ND	250	32	ug/l	
106-43-4	p-Chlorotoluene	ND	250	24	ug/l	
124-48-1	Dibromochloromethane	ND	50	26	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	50	46	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	50	23	ng/l	
106-46-7	1,4-Dichlorobenzene	ND	50	32	ug/l	
75-71-8	Dichlorodifluoromethane	ND	100	86	ug/l	
75-34-3	1,1-Dichloroethane	ND	50	31	ug/l	
107-06-2	1,2-Dichloroethane	ND	50	32	ug/l	
75-35-4	1,1-Dichloroethene	ND	50	21	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	50	32	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	50	47	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 fonnd in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-013013		
Lab Sample ID:	MC17906-3	Date Sampled:	01/30/13
Matrix:	AQ - Ground Water	Date Received:	01/31/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	100	36	ug/l	
142-28-9	1,3-Dichloropropane	ND	250	32	ug/l	
594-20-7	2,2-Dichloropropane	ND	250	79	ug/l	
563-58-6	1,1-Dichloropropene	ND	250	46	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	9.8	ug/l	
123-91-1	1,4-Dioxane	ND	1300	740	ug/l	
97-63-2	Ethyl methacrylate	ND	250	41	ug/l	
100-41-4	Ethylbenzene	1900	50	25	ug/l	
87-68-3	Hexachlorobutadiene	ND	250	100	ug/l	
591-78-6	2-Hexanone	ND	250	98	ug/l	
98-82-8	Isopropylbenzene	45.5	250	25	ug/l	J
99-87-6	p-Isopropyltoluene	ND	250	29	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	50	21	ug/l	UJ
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	150	ug/l	UJ
74-95-3	Methylene bromide	ND	250	55	ug/l	
75-09-2	Methylene chloride	ND	100	42	ug/l	
91-20-3	Naphthalene	376	250	25	ug/l	
103-65-1	n-Propylbenzene	85.0	250	29	ug/l	J
100-42-5	Styrene	ND	250	23	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	29	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	50	30	ug/l	
127-18-4	Tetrachloroethene	ND	50	21	ug/l	
108-88-3	Toluene	296	50	25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	250	63	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	250	64	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	50	42	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	50	25	ug/l	
79-01-6	Trichloroethene	ND	50	39	ug/l	
75-69-4	Trichlorofluoromethane	ND	50	14	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	250	42	ug/l	
95-63-6	1,2,4-Trimethylbenzene	563	250	17	ug/l	
108-67-8	1,3,5-Trimethylbenzene	49.1	250	23	ug/l	J
108-05-4	Vinyl Acetate	ND	250	63	ug/l	
75-01-4	Vinyl chloride	ND	50	31	ug/l	
	m,p-Xylene	4190	50	37	ug/l	
95-47-6	o-Xylene	264	50	29	ug/l	
1330-20-7	Xylene (total)	4450	50	29	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:	P59-ROX-013013		
Lab Sample ID:	MC17906-3	Date Sampled:	01/30/13
Matrix:	AQ - Ground Water	Date Received:	01/31/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	110%		70-130%
460-00-4	4-Bromofluorobenzene	113%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	P59-ROX-013013		
Lab Sample ID:	MC17906-3	Date Sampled:	01/30/13
Matrix:	AQ - Ground Water	Date Received:	01/31/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W9072.D	1	02/06/13	KR	02/05/13	OP31875	MSW425
Run #2							

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.2	0.73	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.1	ug/l	
105-67-9	2,4-Dimethylphenol	58.1	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.6	ug/l	
95-48-7	2-Methylphenol	154	10	2.0	ug/l	
	3&4-Methylphenol	107	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	21	1.6	ug/l	UJ
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	141	5.2	1.0	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	10	1.3	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.75	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.68	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.5	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.35	ng/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.39	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	1.5	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.99	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.83	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.79	ng/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.92	ug/l	
132-64-9	Dibenzofuran	ND	2.1	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	2.2	5.2	0.56	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.2	1.3	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:	P59-ROX-013013		
Lab Sample ID:	MC17906-3	Date Sampled:	01/30/13
Matrix:	AQ - Ground Water	Date Received:	01/31/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.2	0.52	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.21	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	4.1	2.1	0.48	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.55	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	1.6	ug/l	
78-59-1	Isophorone	ND	5.2	0.52	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.89	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.3	ug/l	UJ
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.52	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.99	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	1.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	17%		15-110%
4165-62-2	Phenol-d5	35%		15-110%
118-79-6	2,4,6-Tribromophenol	71%		15-110%
4165-60-0	Nitrobenzene-d5	70%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	36%		30-130%

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

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

Report of Analysis

Client Sample ID:	P59-ROX-013013		
Lab Sample ID:	MC17906-3	Date Sampled:	01/30/13
Matrix:	AQ - Ground Water	Date Received:	01/31/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U12159.D	1	02/06/13	NS	02/05/13	OP31876	MSU630
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.47	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	
120-12-7	Anthracene	0.12	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.031	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.018	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.039	ug/l	
207-08-9	Beuzo(k)fluoranthene	ND	0.10	0.060	ug/l	
218-01-9	Chrysene	ND	0.10	0.075	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	~~0.079~~	0.10	0.034	ug/l	JB
86-73-7	Fluorene	0.69	0.10	0.048	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.047	ug/l	
90-12-0	1-Methylnaphthalene	22.2	0.21	0.14	ug/l	
91-57-6	2-Methylnaphthaleue	30.5	0.21	0.054	ug/l	
85-01-8	Phenanthrene	1.0	0.052	0.013	ug/l	
129-00-0	Pyrene	~~0.11~~	~~0.10~~	0.037	ug/l	B

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	48%		30-130%

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:	P59-ROX-013013		
Lab Sample ID:	MC17906-3	Date Sampled:	01/30/13
Matrix:	AQ - Ground Water	Date Received:	01/31/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78266.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
Run #2							

	Initial Volume	Final Volume
Run #1	35.9 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	83%		36-173%
460-00-4	Bromofluorobenzene (S)	75%		36-173%

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

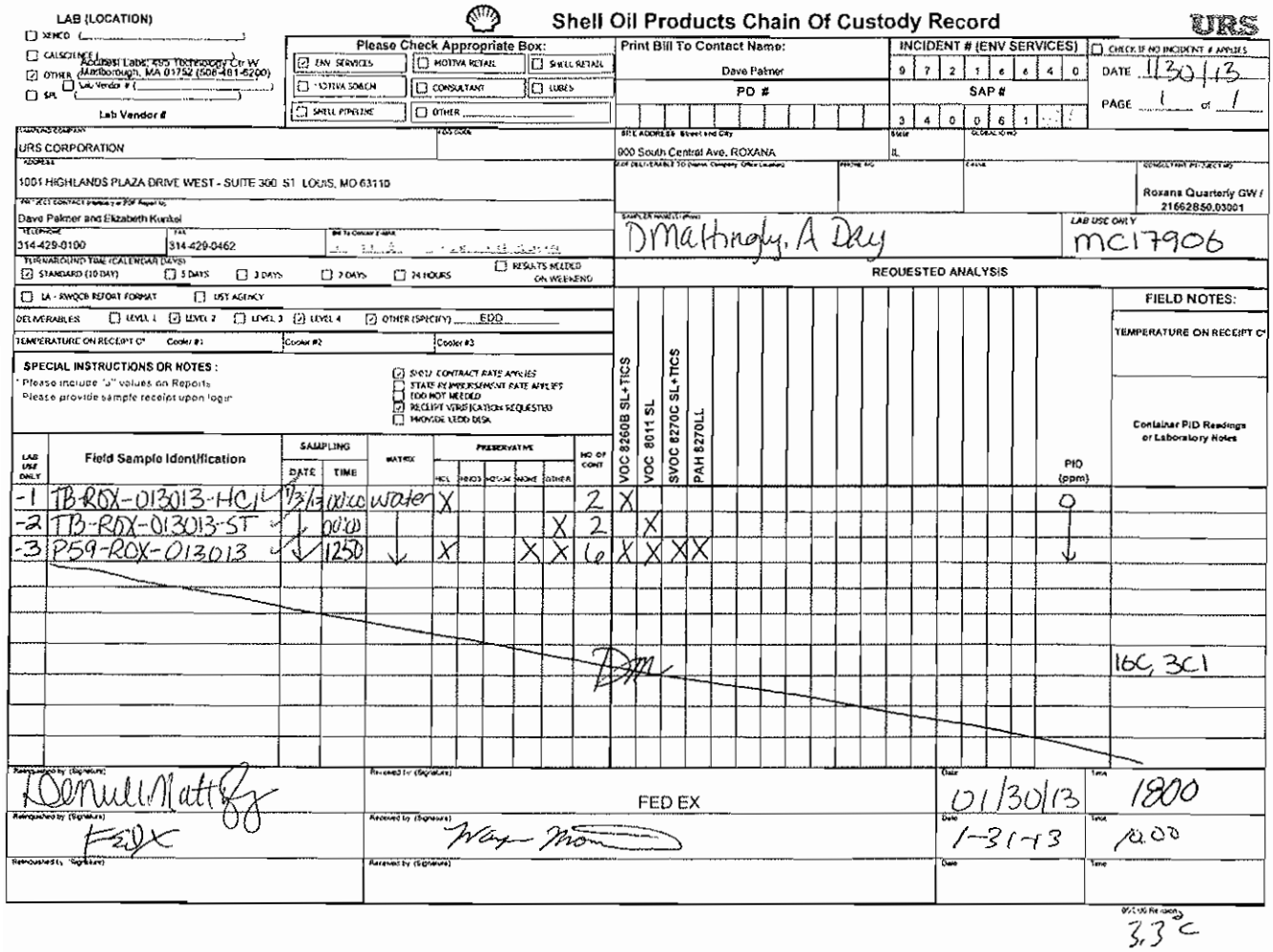
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200)
☐ SPL (Lab Vendor # _____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOMOA ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Dave Palmer
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE 1/30/13
PAGE 1 of 1

CONSULTANT COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300 ST LOUIS, MO 63110
ATTN: (CONTACT PERSON to Report to): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462
SITE ADDRESS (Street and City): 900 South Central Ave, ROXANA
STATE: IL
CONSULTANT PROJECT #: Roxana Quarterly GW / 21662B50.03001
SAMPLER NAME(S) (Print): D Mattingly, A Day
LAB USE ONLY: MC17906

TURNAROUND TIME (CALENDAR DAYS)
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports
Please provide sample receipt upon login
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NaOH	OTHER	NO OF CONT	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	TB-ROX-013013-HCL	1/30/13	0900	water	X					2	X				0	
-2	TB-ROX-013013-ST	↓	0900	↓					X	2		X			↓	
-3	P59-ROX-013013	↓	1250	↓	X			X	X	6	X	X	XX		↓	
																16C, 3C1

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by (Signature): D Mattingly — Received by (Signature): FED EX — Date: 01/30/13 — Time: 1800
Relinquished by (Signature): FedEx — Received by (Signature): Wayne Moore — Date: 1-31-13 — Time: 1000
Relinquished by (Signature): — Received by (Signature): — Date: — Time:

05/08 Revision
3.3°C

5.1

MC17906: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC17906 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 1/31/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SOUTH CENTRAL AVE No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved.	☑ ☐
2. Cooler temp verification:	Infared gun
3. Cooler media:	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2 All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear.	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

5.1

5

MC17906: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC17906

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC17906-1 Collected: 30-JAN-13 00:00 By: DMAD Received: 31-JAN-13 By: TB-ROX-013013-HCL						
MC17906-1	SW846 8260B	01-FEB-13 13:43	KD			V8260SL+
MC17906-2 Collected: 30-JAN-13 00:00 By: DMAD Received: 31-JAN-13 By: TB-ROX-013013-ST						
MC17906-2	SW846 8011	06-FEB-13 14:38	AP	01-FEB-13	BJ	V8011SL
MC17906-3 Collected: 30-JAN-13 12:50 By: DMAD Received: 31-JAN-13 By: P59-ROX-013013						
MC17906-3	SW846 8260B	01-FEB-13 18:53	KD			V8260SL+
MC17906-3	SW846 8270C	06-FEB-13 12:31	KR	05-FEB-13	BJ	AB8270SL+
MC17906-3	SW846 8270C BY SIM	06-FEB-13 13:53	NS	05-FEB-13	BJ	B8270SIMSL
MC17906-3	SW846 8011	06-FEB-13 15:05	AP	01-FEB-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 01/31/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC17906-1.1	VOC Ref #2	Krysten Dufort	02/01/13 10:52	Retrieve from Storage
MC17906-1.1	Krysten Dufort	GCMSN	02/01/13 10:52	Load on Instrument
MC17906-1.1	GCMSN	Krysten Dufort	02/04/13 09:25	Unload from Instrument
MC17906-1.1	Krysten Dufort	VOC Ref #2	02/04/13 09:25	Return to Storage
MC17906-2.1	VOC Ref #3	Bijan Jafari	02/01/13 14:34	Retrieve from Storage
MC17906-2.1	Bijan Jafari		02/02/13 13:41	Depleted
MC17906-3.2	Walk In Ref #22	Michael Rolo	02/04/13 07:21	Retrieve from Storage
MC17906-3.2	Michael Rolo		02/05/13 07:01	Depleted
MC17906-3.4	VOC Ref #2	Krysten Dufort	02/01/13 10:52	Retrieve from Storage
MC17906-3.4	Krysten Dufort	GCMSN	02/01/13 10:52	Load on Instrument
MC17906-3.4	GCMSN	Krysten Dufort	02/04/13 09:25	Unload from Instrument
MC17906-3.4	Krysten Dufort	VOC Ref #2	02/04/13 09:25	Return to Storage
MC17906-3.6	VOC Ref #3	Bijan Jafari	02/01/13 14:34	Retrieve from Storage
MC17906-3.6	Bijan Jafari		02/02/13 13:41	Depleted

5.3

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2726-MB	N72550.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbou disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl viuyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2726-MB	N72550.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanoue (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ng/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Viuyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

Method Blank Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2726-MB	N72550.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	108%	70-130%
2037-26-5	Toluene-D8	110%	70-130%
460-00-4	4-Bromoflnorobenzene	114%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2726-BS	N72547.D	1	02/01/13	KD	n/a	n/a	MSN2726
MSN2726-BSD	N72548.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	39.9	80	37.3	75	7	70-130/25
107-02-8	Acrolein	250	227	91	216	86	5	70-130/25
107-13-1	Acrylonitrile	50	200	400* a	191	382* a	5	70-130/25
71-43-2	Benzene	50	44.6	89	46.5	93	4	70-130/25
108-86-1	Bromobenzene	50	47.7	95	49.3	99	3	70-130/25
74-97-5	Bromochloromethane	50	47.9	96	48.5	97	1	70-130/25
75-27-4	Bromodichloromethane	50	51.2	102	52.0	104	2	70-130/25
75-25-2	Bromoform	50	47.9	96	46.8	94	2	70-130/25
74-83-9	Bromomethane	50	50.5	101	50.7	101	0	70-130/25
78-93-3	2-Butanone (MEK)	50	39.1	78	37.2	74	5	70-130/25
104-51-8	n-Butylbenzene	50	47.9	96	49.7	99	4	70-130/25
135-98-8	sec-Butylbenzene	50	46.5	93	47.8	96	3	70-130/25
98-06-6	tert-Bntylbenzene	50	44.6	89	46.1	92	3	70-130/25
75-15-0	Carbon disulfide	50	46.1	92	47.6	95	3	70-130/25
56-23-5	Carbon tetrachloride	50	50.8	102	51.8	104	2	70-130/25
108-90-7	Chlorobenzene	50	45.3	91	46.2	92	2	70-130/25
75-00-3	Chloroethane	50	46.8	94	47.7	95	2	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	47.2	94	48.6	97	3	70-130/25
67-66-3	Chloroform	50	46.6	93	46.9	94	1	70-130/25
74-87-3	Chloromethane	50	42.2	84	41.9	84	1	70-130/25
95-49-8	o-Chlorotoluene	50	43.9	88	45.1	90	3	70-130/25
106-43-4	p-Chlorotoluene	50	46.1	92	47.1	94	2	70-130/25
124-48-1	Dibromochloromethane	50	58.9	118	58.8	118	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	45.9	92	46.3	93	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	46.2	92	47.1	94	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	49.2	98	50.9	102	3	70-130/25
75-71-8	Dichlorodifluoromethane	50	45.2	90	46.7	93	3	70-130/25
75-34-3	1,1-Dichloroethane	50	49.9	100	51.3	103	3	70-130/25
107-06-2	1,2-Dichloroethane	50	43.7	87	43.9	88	0	70-130/25
75-35-4	1,1-Dichloroethene	50	48.0	96	50.0	100	4	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	44.2	88	45.0	90	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	44.1	88	44.2	88	0	70-130/25
78-87-5	1,2-Dichloropropane	50	46.2	92	47.6	95	3	70-130/25
142-28-9	1,3-Dichloropropane	50	47.4	95	47.0	94	1	70-130/25
594-20-7	2,2-Dichloropropane	50	44.0	88	40.7	81	8	70-130/25
563-58-6	1,1-Dichloropropene	50	48.7	97	51.2	102	5	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2726-BS	N72547.D	1	02/01/13	KD	n/a	n/a	MSN2726
MSN2726-BSD	N72548.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	50	43.4	87	42.9	86	1	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	45.5	91	44.4	89	2	70-130/25
123-91-1	1,4-Dioxane	250	208	83	176	70	17	70-130/25
97-63-2	Ethyl methacrylate	50	44.3	89	42.5	85	4	77-137/25
100-41-4	Ethylbenzene	50	45.3	91	46.3	93	2	70-130/25
87-68-3	Hexachlorobutadiene	50	48.0	96	49.5	99	3	70-130/25
591-78-6	2-Hexanone	50	38.9	78	35.9	72	8	70-130/25
98-82-8	Isopropylbenzene	50	45.6	91	47.3	95	4	70-130/25
99-87-6	p-Isopropyltoluene	50	50.1	100	51.2	102	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	36.9	74	32.8	66* b	12	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	36.1	72	34.1	68* b	6	70-130/25
74-95-3	Methylene bromide	50	46.9	94	46.0	92	2	70-130/25
75-09-2	Methylene chloride	50	46.4	93	47.5	95	2	70-130/25
91-20-3	Naphthalene	50	43.6	87	41.5	83	5	70-130/25
103-65-1	n-Propylbenzene	50	44.6	89	46.5	93	4	70-130/25
100-42-5	Styrene	50	47.5	95	48.5	97	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	56.6	113	57.5	115	2	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	45.7	91	44.4	89	3	70-130/25
127-18-4	Tetrachloroethene	50	53.9	108	54.6	109	1	70-130/25
108-88-3	Toluene	50	45.8	92	46.9	94	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	45.4	91	44.6	89	2	70-130/25
120-82-1	1,2,4-Trichlorobeuzene	50	46.1	92	46.4	93	1	70-130/25
71-55-6	1,1,1-Trichloroethane	50	48.6	97	49.2	98	1	70-130/25
79-00-5	1,1,2-Trichloroethane	50	44.5	89	44.5	89	0	70-130/25
79-01-6	Trichloroethene	50	44.5	89	46.2	92	4	70-130/25
75-69-4	Trichlorofluoromethane	50	48.1	96	49.4	99	3	70-130/25
96-18-4	1,2,3-Trichloropropane	50	44.5	89	42.4	85	5	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	46.4	93	47.6	95	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	46.4	93	47.7	95	3	70-130/25
108-05-4	Vinyl Acetate	50	47.8	96	45.1	90	6	70-130/25
75-01-4	Vinyl chloride	50	44.7	89	45.8	92	2	70-130/25
	m,p-Xylene	100	86.2	86	88.2	88	2	70-130/25
95-47-6	o-Xylene	50	42.5	85	43.4	87	2	70-130/25
1330-20-7	Xylene (total)	150	129	86	132	88	2	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN2726-BS	N72547.D	1	02/01/13	KD	n/a	n/a	MSN2726
MSN2726-BSD	N72548.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	113%	114%	70-130%
2037-26-5	Toluene-D8	112%	111%	70-130%
460-00-4	4-Bromofluorobenzene	106%	106%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17889-1MS	N72567.D	1	02/01/13	KD	n/a	n/a	MSN2726
MC17889-1MSD	N72568.D	1	02/01/13	KD	n/a	n/a	MSN2726
MC17889-1	N72556.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Compound	MC17889-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	40.6	81	42.3	85	4	70-130/30
107-02-8	Acrolein	ND		250	215	86	235	94	9	70-130/30
107-13-1	Acrylonitrile	ND		50	196	392* [a]	213	426* [a]	8	70-130/30
71-43-2	Benzene	ND		50	45.1	90	43.4	87	4	70-130/30
108-86-1	Bromobenzene	ND		50	46.8	94	46.8	94	0	70-130/30
74-97-5	Bromochloromethane	ND		50	48.4	97	48.0	96	1	70-130/30
75-27-4	Bromodichloromethane	ND		50	50.6	101	49.9	100	1	70-130/30
75-25-2	Bromoform	ND		50	44.0	88	46.5	93	6	70-130/30
74-83-9	Bromomethane	ND		50	41.8	84	44.9	90	7	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	38.1	76	42.8	86	12	70-130/30
104-51-8	n-Butylbenzene	ND		50	44.5	89	44.3	89	0	70-130/30
135-98-8	sec-Butylbenzene	ND		50	44.5	89	44.0	88	1	70-130/30
98-06-6	tert-Butylbenzene	ND		50	43.7	87	43.0	86	2	70-130/30
75-15-0	Carbon disulfide	ND		50	42.3	85	41.1	82	3	70-130/30
56-23-5	Carbon tetrachloride	ND		50	47.6	95	46.8	94	2	70-130/30
108-90-7	Chlorobenzene	ND		50	44.6	89	43.8	88	2	70-130/30
75-00-3	Chloroethane	ND		50	43.1	86	41.9	84	3	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	47.4	95	46.4	93	2	70-130/30
67-66-3	Chloroform	ND		50	47.6	95	45.8	92	4	70-130/30
74-87-3	Chloromethane	ND		50	39.1	78	37.8	76	3	70-130/30
95-49-8	o-Chlorotoluene	ND		50	43.5	87	42.7	85	2	70-130/30
106-43-4	p-Chlorotoluene	ND		50	44.7	89	44.4	89	1	70-130/30
124-48-1	Dibromochloromethane	ND		50	55.9	112	57.0	114	2	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	44.6	89	44.6	89	0	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	45.2	90	44.2	88	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	47.9	96	49.1	98	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	30.2	60* [b]	28.7	57* [b]	5	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	49.4	99	48.5	97	2	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	44.1	88	44.2	88	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	46.9	94	45.3	91	3	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	44.4	89	43.3	87	3	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	42.2	84	41.1	82	3	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	46.4	93	45.4	91	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	46.4	93	47.2	94	2	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	37.5	75	40.3	81	7	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	47.4	95	46.5	93	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17889-1MS	N72567.D	1	02/01/13	KD	n/a	n/a	MSN2726
MC17889-1MSD	N72568.D	1	02/01/13	KD	n/a	n/a	MSN2726
MC17889-1	N72556.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Compound	MC17889-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	40.4	81	41.9	84	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	42.0	84	44.7	89	6	70-130/30
123-91-1	1,4-Dioxane	ND		250	177	71	211	84	18	70-130/30
97-63-2	Ethyl methacrylate	ND		50	39.7	79	42.8	86	8	72-139/30
100-41-4	Ethylbenzene	ND		50	44.9	90	43.4	87	3	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	44.0	88	45.0	90	2	70-130/30
591-78-6	2-Hexanone	ND		50	33.9	68* [b]	41.1	82	19	70-130/30
98-82-8	Isopropylbenzene	ND		50	45.0	90	44.1	88	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	47.6	95	47.2	94	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	33.6	67* [b]	38.0	76	12	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	34.0	68* [b]	38.7	77	13	70-130/30
74-95-3	Methylene bromide	ND		50	46.2	92	46.3	93	0	70-130/30
75-09-2	Methylene chloride	ND		50	45.9	92	44.6	89	3	70-130/30
91-20-3	Naphtbalene	ND		50	36.0	72	42.4	85	16	70-130/30
103-65-1	n-Propylbenzene	ND		50	43.6	87	43.2	86	1	70-130/30
100-42-5	Styrene	ND		50	43.0	86	42.6	85	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	55.7	111	54.9	110	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	43.5	87	47.4	95	9	70-130/30
127-18-4	Tetrachloroethene	ND		50	51.6	103	50.7	101	2	70-130/30
108-88-3	Toluene	ND		50	45.2	90	44.3	89	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	40.0	80	44.1	88	10	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	42.1	84	44.6	89	6	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	47.0	94	46.1	92	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	43.7	87	45.1	90	3	70-130/30
79-01-6	Trichloroethene	ND		50	45.2	90	44.6	89	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	44.8	90	42.4	85	6	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	41.4	83	46.4	93	11	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	43.8	88	42.7	85	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	43.3	87	42.5	85	2	70-130/30
108-05-4	Vinyl Acetate	ND		50	46.2	92	49.5	99	7	70-130/30
75-01-4	Vinyl chloride	ND		50	39.6	79	37.6	75	5	70-130/30
	m,p-Xylene	ND		100	83.9	84	81.4	81	3	70-130/30
95-47-6	o-Xylene	ND		50	41.4	83	40.5	81	2	70-130/30
1330-20-7	Xylene (total)	ND		150	125	83	122	81	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC17889-1MS	N72567.D	1	02/01/13	KD	n/a	n/a	MSN2726
MC17889-1MSD	N72568.D	1	02/01/13	KD	n/a	n/a	MSN2726
MC17889-1	N72556.D	1	02/01/13	KD	n/a	n/a	MSN2726

The QC reported here applies to the following samples: Method: SW846 8260B

MC17906-1, MC17906-3

CAS No.	Surrogate Recoveries	MS	MSD	MC17889-1	Limits
1868-53-7	Dibromoflnoromethane	116%	115%	110%	70-130%
2037-26-5	Toluene-D8	112%	112%	111%	70-130%
460-00-4	4-Bromofluorobenzene	106%	105%	115%	70-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSN2726-CC2707	Injection Date:	02/01/13
Lab File ID:	N72546.D	Injection Time:	09:29
Instrument ID:	GCMSN	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	723102	9.01	1025394	9.88	512910	13.14	482596	15.70	262975	6.55
Upper Limit [a]	1446204	9.51	2050788	10.38	1025820	13.64	965192	16.20	525950	7.05
Lower Limit [b]	361551	8.51	512697	9.38	256455	12.64	241298	15.20	131488	6.05
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSN2726-BS	724570	9.01	1032807	9.88	518481	13.14	481305	15.70	221574	6.55
MSN2726-BSD	717478	9.01	1016219	9.87	510724	13.14	470724	15.70	185989	6.56
MSN2726-MB	697896	9.01	992758	9.88	469485	13.14	400297	15.70	231440	6.58
ZZZZZZ	696203	9.01	991282	9.88	470737	13.14	394245	15.70	205870	6.58
ZZZZZZ	677929	9.01	969610	9.88	459032	13.14	389285	15.70	198612	6.58
ZZZZZZ	670908	9.01	944554	9.88	449610	13.14	377419	15.70	206202	6.59
ZZZZZZ	656538	9.01	937056	9.88	446045	13.14	384426	15.70	195128	6.59
MC17906-1	655527	9.01	940894	9.88	449816	13.14	385622	15.70	191609	6.59
MC17889-1	653538	9.01	927422	9.88	448456	13.14	379606	15.70	218972	6.57
ZZZZZZ	650087	9.01	926349	9.88	441690	13.14	379991	15.70	214157	6.57
ZZZZZZ	652243	9.01	919690	9.88	445902	13.14	377760	15.70	204901	6.57
ZZZZZZ	640520	9.01	920215	9.88	441108	13.14	374017	15.70	199402	6.57
ZZZZZZ	633610	9.01	910370	9.88	437776	13.14	366671	15.70	198924	6.57
ZZZZZZ	628329	9.01	904992	9.88	432666	13.14	366621	15.70	203465	6.57
ZZZZZZ	632140	9.01	913088	9.88	439311	13.14	367601	15.70	230161	6.57
ZZZZZZ	630722	9.01	902309	9.87	436541	13.14	357196	15.70	206383	6.57
ZZZZZZ	659435	9.01	928398	9.88	448753	13.14	426109	15.70	183136	6.57
MC17906-3	653277	9.01	948561	9.88	455235	13.14	398403	15.70	159417	6.56
MC17889-1MS	669076	9.01	968068	9.88	489538	13.14	455547	15.70	176548	6.55
MC17889-1MSD	682670	9.01	985092	9.87	499672	13.14	463286	15.70	215465	6.55
ZZZZZZ	670312	9.01	959267	9.88	456997	13.14	381996	15.70	154361	6.58
ZZZZZZ	646843	9.01	922793	9.88	442254	13.14	359910	15.70	138942	6.58
ZZZZZZ	659824	9.01	947842	9.88	454475	13.14	371848	15.70	189191	6.57

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17906-1	N72555.D	109.0	111.0	113.0
MC17906-3	N72566.D	110.0	110.0	113.0
MC17889-1MS	N72567.D	116.0	112.0	106.0
MC17889-1MSD	N72568.D	115.0	112.0	105.0
MSN2726-BS	N72547.D	113.0	112.0	106.0
MSN2726-BSD	N72548.D	114.0	111.0	106.0
MSN2726-MB	N72550.D	108.0	110.0	114.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

New England ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Snmmaries

Method Blank Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31875-MB	W9065.D	1	02/06/13	KR	02/05/13	OP31875	MSW425

The QC reported here applies to the following samples: Method: SW846 8270C

MC17906-3

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.71	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	1.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.6	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.5	ug/l	
95-48-7	2-Methylphenol	ND	10	2.0	ug/l	
	3&4-Methylphenol	ND	10	1.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	20	1.6	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	1.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	1.8	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.73	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.66	ug/l	
100-51-6	Benzyl Alcohol	ND	10	1.8	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	3.4	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	0.34	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.38	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.4	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.80	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.77	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.89	ug/l	
132-64-9	Dibenzofuran	ND	2.0	1.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.55	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.3	ng/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.20	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.53	ug/l	

Method Blank Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31875-MB	W9065.D	1	02/06/13	KR	02/05/13	OP31875	MSW425

The QC reported here applies to the following samples: Method: SW846 8270C

MC17906-3

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	1.3	ug/l	
67-72-1	Hexachloroethane	ND	5.0	1.6	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.87	ug/l	
99-09-2	3-Nitroaniline	ND	10	2.2	ug/l	
100-01-6	4-Nitroaniline	ND	10	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.96	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	1.3	ug/l	
110-86-1	Pyridine	ND	10	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	36%	15-110%
4165-62-2	Phenol-d5	26%	15-110%
118-79-6	2,4,6-Tribromophenol	76%	15-110%
4165-60-0	Nitrobenzene-d5	65%	30-130%
321-60-8	2-Fluorobiphenyl	55%	30-130%
1718-51-0	Terphenyl-d14	66%	30-130%

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

Method Blank Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31876-MB	U12152.D	1	02/06/13	NS	02/05/13	OP31876	MSU630

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17906-3

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
120-12-7	Anthracene	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)anthracene	0.22	0.050	0.030	ug/l	
50-32-8	Benzo(a)pyrene	0.055	0.10	0.017	ug/l	J
205-99-2	Benzo(b)fluoranthene	0.092	0.050	0.024	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.052	0.10	0.038	ug/l	J
207-08-9	Benzo(k)fluoranthene	0.080	0.10	0.059	ug/l	J
218-01-9	Chrysene	0.11	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.053	0.10	0.042	ug/l	J
206-44-0	Fluoranthene	0.081	0.10	0.033	ug/l	J
86-73-7	Fluorene	ND	0.10	0.046	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.057	0.10	0.046	ug/l	J
90-12-0	1-Methylnaphthalene	ND	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	0.052	ug/l	
85-01-8	Phenanthrene	ND	0.050	0.013	ug/l	
129-00-0	Pyrene	0.079	0.10	0.036	ug/l	J

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	37%	15-110%
4165-62-2	Phenol-d5	26%	15-110%
118-79-6	2,4,6-Tribromophenol	64%	15-110%
4165-60-0	Nitrobenzene-d5	61%	30-130%
321-60-8	2-Fluorobiphenyl	65%	30-130%
1718-51-0	Terphenyl-d14	75%	30-130%

Blank Spike Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31875-BS	W9066.D	1	02/06/13	KR	02/05/13	OP31875	MSW425

The QC reported here applies to the following samples: Method: SW846 8270C

MC17906-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	35.3	35	30-130
95-57-8	2-Chlorophenol	100	57.6	58	30-130
59-50-7	4-Chloro-3-methyl phenol	100	62.5	63	30-130
120-83-2	2,4-Dichlorophenol	100	66.6	67	30-130
105-67-9	2,4-Dimethylphenol	100	44.0	44	30-130
51-28-5	2,4-Dinitrophenol	100	69.3	69	30-130
534-52-1	4,6-Dinitro-o-cresol	100	71.2	71	30-130
95-48-7	2-Methylphenol	100	51.3	51	30-130
	3&4-Methylphenol	200	97.1	49	30-130
88-75-5	2-Nitrophenol	100	70.2	70	30-130
100-02-7	4-Nitrophenol	100	27.3	27* a	30-130
87-86-5	Pentachlorophenol	100	71.1	71	30-130
108-95-2	Phenol	100	28.7	29* a	30-130
95-95-4	2,4,5-Trichlorophenol	100	71.2	71	30-130
88-06-2	2,4,6-Trichlorophenol	100	71.3	71	30-130
62-53-3	Aniline	50	16.7	33* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	31.4	63	40-140
85-68-7	Bntyl benzyl phthalate	50	21.5	43	40-140
100-51-6	Benzyl Alcohol	50	28.0	56	40-140
91-58-7	2-Chloronaphthalene	50	29.3	59	40-140
106-47-8	4-Chloroaniline	50	21.4	43	40-140
111-91-1	bis(2-Chloroetboxy)methane	50	27.8	56	40-140
111-44-4	bis(2-Chloroethyl)ether	50	29.5	59	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	33.3	67	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	33.0	66	40-140
122-66-7	1,2-Diphenylhydrazine	50	28.4	57	40-140
121-14-2	2,4-Dinitrotoluene	50	35.5	71	40-140
606-20-2	2,6-Dinitrotoluene	50	33.7	67	40-140
91-94-1	3,3'-Dichlorobenzidine	50	23.3	47	40-140
132-64-9	Dibenzofuran	50	29.6	59	40-140
84-74-2	Di-n-butyl phthalate	50	27.5	55	40-140
117-84-0	Di-n-octyl phthalate	50	33.8	68	40-140
84-66-2	Diethyl phthalate	50	22.1	44	40-140
131-11-3	Dimethyl phthalate	50	8.7	17* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	30.3	61	40-140
118-74-1	Hexachlorobenzene	50	33.2	66	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31875-BS	W9066.D	1	02/06/13	KR	02/05/13	OP31875	MSW425

The QC reported here applies to the following samples: Method: SW846 8270C

MC17906-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	12.1	24* a	40-140
67-72-1	Hexachloroethane	50	21.3	43	40-140
78-59-1	Isophorone	50	33.4	67	40-140
88-74-4	2-Nitroaniline	50	34.1	68	40-140
99-09-2	3-Nitroaniline	50	19.3	39* a	40-140
100-01-6	4-Nitroaniline	50	28.3	57	40-140
98-95-3	Nitrobenzene	50	31.4	63	40-140
62-75-9	n-Nitrosodimethylamine	50	18.9	38* a	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	33.8	68	40-140
86-30-6	N-Nitrosodiphenylamine	50	30.6	61	40-140
110-86-1	Pyridine	50	14.8	30* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Flnorophenol	38%	15-110%
4165-62-2	Phenol-d5	26%	15-110%
118-79-6	2,4,6-Tribromophenol	77%	15-110%
4165-60-0	Nitrobenzene-d5	65%	30-130%
321-60-8	2-Fluorobiphenyl	58%	30-130%
1718-51-0	Terphenyl-d14	64%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31876-BS	U12153.D	1	02/06/13	NS	02/05/13	OP31876	MSU630

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17906-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	34.3	69	40-140
208-96-8	Acenaphthylene	50	24.5	49	40-140
120-12-7	Anthracene	50	34.3	69	40-140
56-55-3	Benzo(a)anthracene	50	36.8	74	40-140
50-32-8	Benzo(a)pyrene	50	32.7	65	40-140
205-99-2	Benzo(b)fluoranthene	50	33.0	66	40-140
191-24-2	Benzo(g,h,i)perylene	50	34.0	68	40-140
207-08-9	Benzo(k)fluoranthene	50	35.5	71	40-140
218-01-9	Chrysene	50	36.0	72	40-140
53-70-3	Dibenzo(a,h)anthracene	50	34.0	68	40-140
206-44-0	Fluoranthene	50	37.4	75	40-140
86-73-7	Fluorene	50	35.5	71	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	33.6	67	40-140
90-12-0	1-Methylnaphthalene	50	33.7	67	40-140
91-57-6	2-Methylnaphthalene	50	31.2	62	40-140
85-01-8	Phenanthrene	50	35.7	71	40-140
129-00-0	Pyrene	50	36.1	72	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	39%	15-110%
4165-62-2	Phenol-d5	28%	15-110%
118-79-6	2,4,6-Tribromophenol	65%	15-110%
4165-60-0	Nitrobenzene-d5	64%	30-130%
321-60-8	2-Fluorobiphenyl	66%	30-130%
1718-51-0	Terphenyl-d14	74%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31875-MS	W9067.D	1	02/06/13	KR	02/05/13	OP31875	MSW425
OP31875-MSD	W9068.D	1	02/06/13	KR	02/05/13	OP31875	MSW425
MC17889-1	W9069.D	1	02/06/13	KR	02/05/13	OP31875	MSW425

The QC reported here applies to the following samples: Method: SW846 8270C

MC17906-3

CAS No.	Compound	MC17889-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		118	44.6	38	46.1	39	3	30-130/20
95-57-8	2-Chlorophenol	ND		118	71.7	61	74.0	63	3	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		118	73.9	63	75.1	64	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		118	81.7	69	83.4	71	2	30-130/20
105-67-9	2,4-Dimethylphenol	ND		118	53.4	45	49.1	42	8	30-130/20
51-28-5	2,4-Dinitrophenol	ND		118	83.9	71	86.4	73	3	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		118	84.1	71	87.3	74	4	30-130/20
95-48-7	2-Methylphenol	ND		118	65.1	55	65.0	55	0	30-130/20
	3&4-Methylphenol	ND		235	121	51	122	52	1	30-130/20
88-75-5	2-Nitrophenol	ND		118	84.4	72	87.2	74	3	30-130/20
100-02-7	4-Nitrophenol	ND		118	35.2	30	36.7	31	4	30-130/20
87-86-5	Pentachlorophenol	ND		118	52.3	44	54.2	46	4	30-130/20
108-95-2	Phenol	ND		118	37.8	32	39.2	33	4	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		118	83.5	71	86.5	74	4	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		118	84.6	72	86.8	74	3	30-130/20
62-53-3	Aniline	ND		58.8	19.9	34* [a]	20.1	34* [a]	1	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		58.8	33.6	57	32.9	56	2	40-140/20
85-68-7	Butyl benzyl phthalate	ND		58.8	29.5	50	25.4	43	15	40-140/20
100-51-6	Benzyl Alcohol	ND		58.8	33.3	57	34.9	59	5	40-140/20
91-58-7	2-Chloronaphthalene	ND		58.8	34.6	59	33.8	57	2	40-140/20
106-47-8	4-Chloroaniline	ND		58.8	22.6	38* [b]	22.2	38* [b]	2	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		58.8	33.7	57	32.9	56	2	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		58.8	36.5	62	36.4	62	0	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		58.8	40.2	68	40.0	68	0	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		58.8	35.4	60	34.8	59	2	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		58.8	31.7	54	31.2	53	2	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		58.8	40.7	69	40.0	68	2	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		58.8	38.6	66	38.0	65	2	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		58.8	25.3	43	27.3	46	8	40-140/20
132-64-9	Dibenzofuran	ND		58.8	33.2	56	32.4	55	2	40-140/20
84-74-2	Di-n-butyl phthalate	2.4	J	58.8	32.4	51	30.3	47	7	40-140/20
117-84-0	Di-n-octyl phthalate	ND		58.8	32.9	56	32.7	56	1	40-140/20
84-66-2	Diethyl phthalate	ND		58.8	33.7	57	26.8	46	23* [c]	40-140/20
131-11-3	Dimethyl phthalate	ND		58.8	26.6	45	13.3	23* [a]	67* [a]	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	4.4		58.8	29.3	42	29.5	43	1	40-140/20
118-74-1	Hexachlorobenzene	ND		58.8	32.3	55	32.6	55	1	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31875-MS	W9067.D	1	02/06/13	KR	02/05/13	OP31875	MSW425
OP31875-MSD	W9068.D	1	02/06/13	KR	02/05/13	OP31875	MSW425
MC17889-1	W9069.D	1	02/06/13	KR	02/05/13	OP31875	MSW425

The QC reported here applies to the following samples: Method: SW846 8270C

MC17906-3

CAS No.	Compound	MC17889-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		58.8	15.5	26* [a]	15.5	26* [a]	0	40-140/20
67-72-1	Hexachloroethane	ND		58.8	27.4	47	27.0	46	1	40-140/20
78-59-1	Isophorone	ND		58.8	40.2	68	39.7	67	1	40-140/20
88-74-4	2-Nitroaniline	ND		58.8	41.1	70	40.8	69	1	40-140/20
99-09-2	3-Nitroaniline	ND		58.8	21.2	36* [a]	20.5	35* [a]	3	40-140/20
100-01-6	4-Nitroaniline	ND		58.8	34.1	58	33.7	57	1	40-140/20
98-95-3	Nitrobenzene	ND		58.8	38.5	65	38.5	65	0	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		58.8	24.9	42	25.5	43	2	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		58.8	40.5	69	40.1	68	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		58.8	34.5	59	33.9	58	2	40-140/20
110-86-1	Pyridine	ND		58.8	19.3	33* [a]	19.3	33* [a]	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17889-1	Limits
367-12-4	2-Fluorophenol	42%	45%	38%	15-110%
4165-62-2	Phenol-d5	30%	31%	27%	15-110%
118-79-6	2,4,6-Tribromophenol	71%	75%	77%	15-110%
4165-60-0	Nitrobenzene-d5	68%	67%	66%	30-130%
321-60-8	2-Fluorobiphenyl	56%	55%	59%	30-130%
1718-51-0	Terphenyl-d14	47%	47%	55%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(c) High RPD due to possible matrix interference and/or sample non-homogeneity.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31876-MS	U12I54.D	I	02/06/13	NS	02/05/13	OP31876	MSU630
OP31876-MSD	U12155.D	1	02/06/13	NS	02/05/13	OP31876	MSU630
MC17900-15	U12156.D	1	02/06/13	NS	02/05/13	OP31876	MSU630

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC17906-3

7.3.2

7

CAS No.	Compound	MC17900-15 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		58.8	38.4	65	37.2	63	3	40-140/20
208-96-8	Acenaphthylene	ND		58.8	28.0	48	27.0	46	4	40-140/20
120-12-7	Anthracene	ND		58.8	36.8	63	35.7	61	3	40-140/20
56-55-3	Benzo(a)anthracene	ND		58.8	35.7	61	36.3	62	2	40-140/20
50-32-8	Benzo(a)pyrene	ND		58.8	29.4	50	30.0	51	2	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		58.8	30.6	52	31.1	53	2	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		58.8	30.5	52	31.0	53	2	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		58.8	31.5	54	31.9	54	1	40-140/20
218-01-9	Chrysene	ND		58.8	34.5	59	35.1	60	2	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		58.8	30.7	52	30.9	53	1	40-140/20
206-44-0	Fluoranthene	ND		58.8	39.4	67	39.0	66	1	40-140/20
86-73-7	Fluorene	ND		58.8	40.1	68	39.1	66	3	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		58.8	30.1	51	30.3	52	1	40-140/20
90-12-0	1-Methylnaphthalene	ND		58.8	39.3	67	38.0	65	3	40-140/20
91-57-6	2-Methylnaphthalene	ND		58.8	36.9	63	35.8	61	3	40-140/20
85-01-8	Phenanthrene	ND		58.8	38.5	65	37.4	64	3	40-140/20
129-00-0	Pyrene	ND		58.8	37.3	63	37.1	63	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC17900-15	Limits
367-12-4	2-Fluorophenol	44%	45%	39%	15-110%
4165-62-2	Phenol-d5	31%	32%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	62%	64%	64%	15-110%
4165-60-0	Nitrobenzene-d5	66%	65%	65%	30-130%
321-60-8	2-Fluorobiphenyl	65%	63%	70%	30-130%
1718-51-0	Terphenyl-d14	57%	56%	65%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU631-CC623	Injection Date:	02/06/13
Lab File ID:	U12150.D	Injection Time:	10:31
Instrument ID:	GCMSU	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	80807	3.32	294989	4.30	173710	5.70	316169	6.95	342151	9.76	334276	11.30
Upper Limit [a]	161614	3.82	589978	4.80	347420	6.20	632338	7.45	684302	10.26	668552	11.80
Lower Limit [b]	40404	2.82	147495	3.80	86855	5.20	158085	6.45	171076	9.26	167138	10.80
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31876-MB	115436	3.33	293683	4.29	153020	5.71	267331	6.96	198676	9.71	377258	11.12
OP31876-BS	117062	3.33	290714	4.30	153506	5.71	270892	6.96	187438	9.72	370094	11.12
OP31876-MS	115019	3.33	288449	4.30	152321	5.71	270729	6.96	186384	9.72	366675	11.12
OP31876-MSD	115672	3.33	289438	4.30	15262I	5.71	270217	6.96	188625	9.72	368362	11.12
MC17900-15	115288	3.33	290228	4.29	153843	5.71	269885	6.96	201642	9.71	384205	11.12
ZZZZZZ	121540	3.33	310518	4.29	162408	5.71	285653	6.96	209168	9.72	396947	11.12
ZZZZZZ	114124	3.33	286669	4.29	152525	5.71	261157	6.95	197240	9.71	367432	11.12
MC17906-3	122656	3.33	306528	4.30	161497	5.71	285017	6.95	220494	9.72	421571	11.12
ZZZZZZ	80468	3.32	292705	4.29	175891	5.70	310826	6.95	351444	9.75	333778	11.30
ZZZZZZ	110111	3.33	267240	4.29	142769	5.71	250743	6.95	186055	9.71	348349	11.11
ZZZZZZ	92687	3.33	230240	4.29	122505	5.71	212739	6.95	158017*	9.71	300174	11.11
ZZZZZZ	136124	3.33	332703	4.29	177114	5.71	313025	6.96	232833	9.72	440477	11.12
ZZZZZZ	120246	3.33	300947	4.29	161219	5.71	279966	6.96	210I12	9.72	400024	11.12
ZZZZZZ	98429	3.33	247224	4.29	128470	5.71	227689	6.96	166863*	9.71	314253	11.11
ZZZZZZ	108670	3.33	267703	4.29	138841	5.71	246189	6.96	180997	9.71	344664	11.11
ZZZZZZ	108364	3.33	267041	4.29	139956	5.71	244443	6.96	179933	9.71	337486	11.11
ZZZZZZ	103520	3.33	256744	4.29	132069	5.71	232241	6.95	172967	9.71	323783	11.11
ZZZZZZ	102773	3.33	256260	4.29	130452	5.71	229385	6.96	174729	9.71	330780	11.11
OP31893-MB	83430	3.32	307264	4.29	184937	5.70	323864	6.95	363230	9.75	337639	11.30
OP31893-BS	94954	3.32	337801	4.30	204477	5.70	358009	6.95	389626	9.75	365927	11.30
OP31893-MS	92979	3.33	333182	4.30	196142	5.70	352758	6.95	385852	9.75	359576	11.30
OP31893-MSD	96532	3.33	349763	4.30	211162	5.70	368976	6.95	400573	9.75	371675	11.30
MC17898-7	92251	3.32	342288	4.29	202490	5.70	355902	6.95	398941	9.75	373118	11.30
ZZZZZZ	95037	3.32	335572	4.29	208781	5.70	362231	6.95	419195	9.75	395494	11.30
ZZZZZZ	95321	3.32	348024	4.29	210590	5.70	370I58	6.95	414711	9.75	385969	11.30
ZZZZZZ	103388	3.33	380857	4.30	236769	5.70	420099	6.95	476903	9.75	44759I	11.30
ZZZZZZ	179335[c]	3.33	627281[c]	4.30	384735[c]	5.71	712085[c]	6.96	830969[c]	9.76	745036[c]	11.31

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSU631-CC623	Injection Date:	02/06/13
Lab File ID:	U12150.D	Injection Time:	10:31
Instrument ID:	GCMSU	Method:	SW846 8270C

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Outside control limits due to possible matrix interference.

Semivolatile Internal Standard Area Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW425-CC399	Injection Date:	02/06/13
Lab File ID:	W9061.D	Injection Time:	08:11
Instrument ID:	GCMSW	Method:	SW846 8270C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
Check Std	73403	4.12	280220	5.11	177733	6.56	325414	7.92	400283	10.87	366754	12.45
Upper Limit [a]	146806	4.62	560440	5.61	355466	7.06	650828	8.42	800566	11.37	733508	12.95
Lower Limit [b]	36702	3.62	140110	4.61	88867	6.06	162707	7.42	200142	10.37	183377	11.95
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP31881-MB	104255	4.12	396098	5.11	252749	6.56	463086	7.92	546222	10.86	512935	12.45
OP31881-BS	112033	4.12	420202	5.11	267405	6.56	470170	7.92	550106	10.87	499954	12.45
OP31881-BSD	101022	4.12	378387	5.11	242475	6.56	440560	7.92	534909	10.87	484133	12.45
OP31875-MB	82310	4.12	311973	5.11	197262	6.56	360935	7.92	424246	10.86	406705	12.45
OP31875-BS	86515	4.12	328065	5.11	208502	6.56	373531	7.92	451795	10.86	417692	12.45
OP31875-MS	86794	4.12	326773	5.11	205208	6.56	367610	7.92	435761	10.86	401832	12.45
OP31875-MSD	88114	4.12	329724	5.11	204822	6.56	363700	7.92	433329	10.86	407085	12.45
MC17889-1	84166	4.12	318580	5.11	202061	6.55	365713	7.92	431943	10.86	408785	12.45
ZZZZZZ	82717	4.12	317049	5.11	199784	6.56	371183	7.92	438236	10.86	424447	12.45
ZZZZZZ	85565	4.12	327367	5.11	207732	6.56	383853	7.92	449751	10.86	432291	12.45
MC17906-3	90153	4.12	344484	5.11	218386	6.56	401669	7.92	472232	10.86	454137	12.45
ZZZZZZ	84006	4.12	322542	5.11	202758	6.56	369377	7.92	439678	10.86	419713	12.45
ZZZZZZ	85185	4.12	320988	5.11	203420	6.56	375324	7.92	446116	10.86	422440	12.45
ZZZZZZ	86936	4.12	330463	5.11	208491	6.56	386141	7.92	458379	10.86	439148	12.45
ZZZZZZ	79248	4.12	301833	5.11	190131	6.56	344256	7.92	407618	10.86	389593	12.45
ZZZZZZ	87025	4.12	334965	5.11	226354	6.56	415667	7.92	476827	10.86	453931	12.45
ZZZZZZ	86939	4.12	331314	5.11	213300	6.56	385936	7.92	462043	10.86	436632	12.45
ZZZZZZ	93280	4.12	356606	5.11	227067	6.56	422220	7.92	496763	10.86	485173	12.45
ZZZZZZ	85282	4.12	327525	5.11	209390	6.56	383305	7.92	456512	10.86	434138	12.45
ZZZZZZ	81146	4.12	310113	5.11	195461	6.56	358589	7.92	424549	10.86	406250	12.45
OP31881-MS	109034	4.12	415227	5.11	264432	6.56	475386	7.92	549417	10.87	499557	12.45
OP31881-MSD	99192	4.12	377769	5.11	240495	6.56	432620	7.92	513623	10.87	469975	12.45
MC17924-1	96755	4.12	368507	5.11	233537	6.56	423022	7.92	487933	10.86	462750	12.45
ZZZZZZ	93015	4.12	351592	5.11	224398	6.56	404744	7.92	475712	10.86	442788	12.45
ZZZZZZ	113237	4.12	419278	5.11	265531	6.56	476612	7.92	518737	10.86	485792	12.45
ZZZZZZ	108875	4.12	415748	5.11	262043	6.56	464174	7.92	496186	10.86	457374	12.45
ZZZZZZ	97372	4.12	363193	5.11	232870	6.56	410614	7.92	475979	10.86	463549	12.45
ZZZZZZ	92317	4.12	353361	5.11	225740	6.56	410672	7.92	465809	10.86	460969	12.45
ZZZZZZ	93682	4.12	352823	5.11	226942	6.56	411001	7.92	481184	10.86	462937	12.45

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSW425-CC399	Injection Date:	02/06/13
Lab File ID:	W9061.D	Injection Time:	08:11
Instrument ID:	GCMSW	Method:	SW846 8270C

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT

IS 6 = Perylene-d12

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC17906-3	W9072.D	17.0	35.0	71.0	70.0	57.0	36.0
OP31875-BS	W9066.D	38.0	26.0	77.0	65.0	58.0	64.0
OP31875-MB	W9065.D	36.0	26.0	76.0	65.0	55.0	66.0
OP31875-MS	W9067.D	42.0	30.0	71.0	68.0	56.0	47.0
OP31875-MSD	W9068.D	45.0	31.0	75.0	67.0	55.0	47.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8270C BY SIM Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC17906-3	U12159.D	63.0	65.0	48.0
OP31876-BS	U12153.D	64.0	66.0	74.0
OP31876-MB	U12152.D	61.0	65.0	75.0
OP31876-MS	U12154.D	66.0	65.0	57.0
OP31876-MSD	U12155.D	65.0	63.0	56.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

8

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-MB	YZ78243.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17906-2, MC17906-3

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ng/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	105%	36-173%
460-00-4	Bromofluorobenzene (S)	98%	36-173%

Blank Spike Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-BS	YZ78244.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17906-2, MC17906-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.063	89	60-140
106-93-4	1,2-Dibromoethane	0.071	0.065	92	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	36-173%
460-00-4	Bromofluorobenzene (S)	95%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP31861-MS	YZ78245.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
OP31861-MSD	YZ78246.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036
MC17900-9	YZ78247.D	1	02/06/13	AP	02/01/13	OP31861	GYZ7036

The QC reported here applies to the following samples: Method: SW846 8011

MC17906-2, MC17906-3

CAS No.	Compound	MC17900-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.066	93	0.071	100	7	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.077	108	0.089	125	14	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC17900-9	Limits
460-00-4	Bromofluorobenzene (S)	112%	107%	97%	36-173%
460-00-4	Bromofluorobenzene (S)	99%	96%	92%	36-173%

* = Outside of Control Limits.

8.3.1

8

Volatile Surrogate Recovery Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC17906-2	YZ78265.D	103.0	96.0
MC17906-3	YZ78266.D	83.0	75.0
OP31861-BS	YZ78244.D	101.0	95.0
OP31861-MB	YZ78243.D	105.0	98.0
OP31861-MS	YZ78245.D	112.0	99.0
OP31861-MSD	YZ78246.D	107.0	96.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7036-ICC7036	Injection Date:	02/06/13
Lab File ID:	YZ78238.D	Injection Time:	02:26
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	5.12	4.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	YZ78241A.D	02/06/13	03:47	5.12	4.84
OP31861-MB	YZ78243.D	02/06/13	04:42	5.12	4.84
OP31861-BS	YZ78244.D	02/06/13	05:09	5.12	4.84
OP31861-MS	YZ78245.D	02/06/13	05:37	5.12	4.84
OP31861-MSD	YZ78246.D	02/06/13	06:04	5.12	4.84
MC17900-9	YZ78247.D	02/06/13	06:31	5.12	4.84
ZZZZZZ	YZ78248.D	02/06/13	06:59	5.12	4.84
ZZZZZZ	YZ78249.D	02/06/13	07:26	5.12	4.84
ZZZZZZ	YZ78250.D	02/06/13	07:54	5.12	4.84
ZZZZZZ	YZ78251.D	02/06/13	08:21	5.12	4.84
ZZZZZZ	YZ78252.D	02/06/13	08:48	5.12	4.84

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC17906
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7036-CC7036	Injection Date:	02/06/13
Lab File ID:	YZ78264.D	Injection Time:	14:11
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	5.12	4.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC17906-2	YZ78265.D	02/06/13	14:38	5.12	4.84
MC17906-3	YZ78266.D	02/06/13	15:05	5.12	4.84
GYZ7036-ECC703	YZ78267.D	02/06/13	15:32	5.12	4.84

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.2

Roxana Groundwater Quarterly – 1st Quarter 2013 Data Review

Laboratory SDG: MC18673

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 3/11/2013

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2008

Sample Identification	Sample Identification
MW4-ROX-030413	TB-ROX-030413-HCL
TB-ROX-030413-ST	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes; this was a confirmational re-sampling of MW4 VOCs (sampled previously on January 11, 2013 and reported as part of SDG MC17505)..

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated VOC LCS recoveries were outside evaluation criteria. The initial calibration verification for acrolein exceeded 50 percent difference (%D). These issues are addressed further in the appropriate sections below.

The cooler receipt did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSM1857-BS	VOCs	Acetone	**156**/NA	NA	70-130/NA
MSM1857-BS	VOCs	2-Hexanone	**132**/NA	NA	70-130/NA

Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. No

qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the initial calibration verification recovery for acrolein exceeded 50 percent difference (%D); analytes in the associated sample were qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-030413	VOCs	Acrolein	**UJ**

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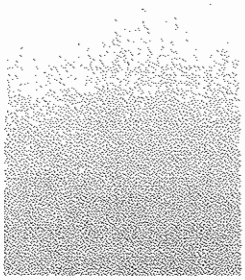
03/11/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana,

Accutest Job Number: MC18673

Sampling Date: 03/04/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Revised
on
3/11/2013

Total number of pages in report: 38

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.

Reza Pand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136,SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7

Table of Contents

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits 5
Section 4: Sample Results **6**
4.1: MC18673-1: MW4-ROX-030413 7
4.2: MC18673-2: TB-ROX-030413-HCL 11
4.3: MC18673-3: TB-ROX-030413-ST 14
Section 5: Misc. Forms 15
5.1: Chain of Custody 16
5.2: Sample Tracking Chronicle 18
5.3: Internal Chain of Custody 19
Section 6: GC/MS Volatiles - QC Data Summaries 20
6.1: Method Blank Summary 21
6.2: Blank Spike Summary 24
6.3: Matrix Spike/Matrix Spike Duplicate Summary 27
6.4: Internal Standard Area Summaries 30
6.5: Surrogate Recovery Summaries 31
Section 7: GC Volatiles - QC Data Summaries **32**
7.1: Method Blank Summary 33
7.2: Blank Spike Summary 34
7.3: Matrix Spike/Matrix Spike Duplicate Summary 35
7.4: Surrogate Recovery Summaries 36
7.5: GC Surrogate Retention Time Summaries 37

Accutest LabLink@134416 11:53 11-Mar-2013

Sample Summary

Shell Oil

Job No: MC18673

URSMOSTL:Roxana IQ13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC18673-1	03/04/13	12:30	MCCW	03/06/13	AQ	Ground Water	MW4-ROX-030413
MC18673-2	03/04/13	00:00	MCCW	03/06/13	AQ	Trip Blank Water	TB-ROX-030413-HCL
MC18673-3	03/04/13	00:00	MCCW	03/06/13	AQ	Trip Blank Water	TB-ROX-030413-ST

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC18673
Site:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central	**Report Date**	3/11/2013 9:24:52 AM

1 Sample(s), 2 Trip Blank(s) were collected on 03/04/2013 and were received at Accutest on 03/06/2013 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of MC18673. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report. 1-Chlorohexane was searched in the library search and reported only if detections were found.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix AQ **Batch ID:** MSM1857

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC18559-1MS, MC18559-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 2-Hexanone, Acetone are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, n-Butylbenzene, p-Isopropyltoluene are outside control limits. Ontside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, p-Isopropyltoluene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification MSM1856-ICV1856 for acrolein exceeds 50% Difference. Acrolein is within criteria in continuing calibration check standard MSM1857-CC1856.

Volatiles by GC By Method SW846 8011

Matrix AQ **Batch ID:** OP32166

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC18600-14MS, MC18600-14MSD were used as the QC samples indicated.
- MS/MSD Recovery(s) for 1,2-Dibromo-3-chloropropane are outside control limits. Ontside control limits due to possible matrix interference.
- OP32166-MS/MSD for Bromofluorobenzene (S): Outside control limits due to possible matrix interference.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety.The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC18673).

Summary of Hits

Job Number: MC18673
Account: Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Collected: 03/04/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC18673-1	MW4-ROX-030413					
Benzene		21400	50	24	ug/l	SW846 8260B
Methyl Tert Butyl Ether		112	100	41	ug/l	SW846 8260B
MC18673-2	TB-ROX-030413-HCL					
No hits reported in this sample.						
MC18673-3	TB-ROX-030413-ST					
No hits reported in this sample.						

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW4-ROX-030413		
Lab Sample ID:	MC18673-1	Date Sampled:	03/04/13
Matrix:	AQ - Ground Water	Date Received:	03/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M54548.D	100	03/07/13	AMY	n/a	n/a	MSM1857
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	500	300	ug/l	
107-02-8	Acrolein	ND	2500	1000	ug/l	UJ
107-13-1	Acrylonitrile	ND	500	320	ug/l	
71-43-2	Benzene	21400	50	24	ug/l	
108-86-1	Bromobenzene	ND	500	62	ug/l	
74-97-5	Bromochloromethane	ND	500	130	ug/l	
75-27-4	Bromodichloromethane	ND	100	58	ug/l	
75-25-2	Bromoform	ND	100	78	ug/l	
74-83-9	Bromomethane	ND	200	100	ug/l	
78-93-3	2-Butanone (MEK)	ND	500	240	ug/l	
104-51-8	n-Butylbenzene	ND	500	61	ug/l	
135-98-8	sec-Butylbenzene	ND	500	55	ug/l	
98-06-6	tert-Butylbenzene	ND	500	64	ug/l	
75-15-0	Carbon disulfide	ND	500	61	ug/l	
56-23-5	Carbon tetrachloride	ND	100	87	ug/l	
108-90-7	Chlorobenzene	ND	100	47	ug/l	
75-00-3	Chloroethane	ND	200	50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	500	130	ug/l	
67-66-3	Chloroform	ND	100	50	ug/l	
74-87-3	Chloromethane	ND	200	73	ug/l	
95-49-8	o-Chlorotoluene	ND	500	65	ug/l	
106-43-4	p-Chlorotoluene	ND	500	48	ug/l	
124-48-1	Dibromochloromethane	ND	100	53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	100	93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	100	45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	100	64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	200	170	ug/l	
75-34-3	1,1-Dichloroethane	ND	100	62	ug/l	
107-06-2	1,2-Dichloroethane	ND	100	63	ug/l	
75-35-4	1,1-Dichloroethene	ND	100	41	ug/l	
156-59-2	cis-1,2-Dicbloroethene	ND	100	64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	100	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:	MW4-ROX-030413		
Lab Sample ID:	MC18673-1	Date Sampled:	03/04/13
Matrix:	AQ - Ground Water	Date Received:	03/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	200	72	ug/l	
142-28-9	1,3-Dichloropropane	ND	500	64	ug/l	
594-20-7	2,2-Dichloropropane	ND	500	160	ug/l	
563-58-6	1,1-Dichloropropene	ND	500	91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	50	45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	50	20	ug/l	
123-91-1	1,4-Dioxane	ND	2500	1500	ug/l	
97-63-2	Ethyl methacrylate	ND	500	81	ug/l	
100-41-4	Ethylbenzene	ND	100	51	ug/l	
87-68-3	Hexachlorobutadiene	ND	500	210	ug/l	
591-78-6	2-Hexanone	ND	500	200	ug/l	
98-82-8	Isopropylbenzene	ND	500	50	ug/l	
99-87-6	p-Isopropyltoluene	ND	500	57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	112	100	41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	500	290	ug/l	
74-95-3	Methylene bromide	ND	500	110	ug/l	
75-09-2	Methylene chloride	ND	200	83	ug/l	
91-20-3	Naphthalene	ND	500	50	ug/l	
103-65-1	n-Propylbenzene	ND	500	58	ug/l	
100-42-5	Styrene	ND	500	45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	500	57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	60	ug/l	
127-18-4	Tetrachloroethene	ND	100	42	ug/l	
108-88-3	Toluene	ND	100	51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	500	130	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	500	130	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	100	85	ug/l	
79-00-5	1,1,2-Trichloroetbane	ND	100	50	ug/l	
79-01-6	Trichloroethene	ND	100	78	ug/l	
75-69-4	Trichlorofluoromethane	ND	100	29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	500	85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	500	35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	500	47	ug/l	
108-05-4	Vinyl Acetate	ND	500	130	ug/l	
75-01-4	Vinyl chloride	ND	100	63	ug/l	
	m,p-Xylene	ND	100	73	ug/l	
95-47-6	o-Xylene	ND	100	58	ug/l	
1330-20-7	Xylene (total)	ND	100	58	ug/l	

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

Report of Analysis

Client Sample ID:	MW4-ROX-030413		
Lab Sample ID:	MC18673-1	**Date Sampled:**	03/04/13
Matrix:	AQ - Ground Water	**Date Received:**	03/06/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
2037-26-5	Toluene-D8	89%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	MW4-ROX-030413		
Lab Sample ID:	MC18673-1	**Date Sampled:**	03/04/13
Matrix:	AQ - Ground Water	**Date Received:**	03/06/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78426.D	1	03/06/13	CZ	03/06/13	OP32166	GYZ7042
Run #2							

	Initial Volume	Final Volume
Run #1	37.7 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0097	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	103%		36-173%
460-00-4	Bromofluorobenzene (S)	47%		36-173%

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

Report of Analysis

Client Sample ID:	TB-ROX-030413-HCL		
Lab Sample ID:	MC18673-2	**Date Sampled:**	03/04/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/06/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M54547.D	1	03/07/13	AMY	n/a	n/a	MSM1857
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ng/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ng/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dihromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ng/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	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:	TB-ROX-030413-HCL		
Lab Sample ID:	MC18673-2	**Date Sampled:**	03/04/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/06/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	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:	TB-ROX-030413-HCL		
Lab Sample ID:	MC18673-2	**Date Sampled:**	03/04/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/06/13
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

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

Report of Analysis

Client Sample ID:	TB-ROX-030413-ST		
Lab Sample ID:	MC18673-3	**Date Sampled:**	03/04/13
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/06/13
Method:	SW846 8011 SW846 8011	**Percent Solids:**	n/a
Project:	URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ78427.D	1	03/06/13	CZ	03/06/13	OP32166	GYZ7042
Run #2							

	Initial Volume	Final Volume
Run #1	36.6 ml	2.0 ml
Run #2		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.014	0.012	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.014	0.0099	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	167%		36-173%
460-00-4	Bromofluorobenzene (S)	125%		36-173%

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

New England ACCUTEST LABORATORIES

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

LAB (LOCATION)

☐ KEMCO (_____)
☐ CALSCIENCE ~~Accutest Labs 495 Technology Ctr W~~
☑ OTHER Marlborough, MA 01752 (508-481-6200)
☐ SPL (Lab Vendor # _____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOD&N ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Bob Billman

INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
PO #:
SAP #: 3 4 0 0 6 1

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 3/4/13
PAGE: 1 of 1

EMPLOYING COMPANY: URS CORPORATION
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO:

ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST. LOUIS, MO 63110

RUSH!

EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO:
E-MAIL:
CONSULTANT PROJECT NO: Roxana Quarterly GW 21662850.03001

PROJECT CONTACT (Hardcopy or PDF Report to): Dave Palmer and Elizabeth Kunkel
SAMPLER NAME(S) (Print): Michael Corbett, Craig Villians
LAB USE ONLY: MC18673

TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: elizabeth.kunkel@urs.com & bob.billman@urs.com

TURNAROUND TIME (CALENDAR DAYS)
☐ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☑ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

DELIVERABLES ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES:
* Please include "J" values on Reports
* Please provide sample receipt upon login.

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B SL+TICS	VOC 8011 SL	PID (ppm)	Container PID Readings or Laboratory Notes
1	MW4-ROX-030413	3/4/13	1250	Water	2				2	4	X	X	0.0	
2	TB-ROX-030413-HCL		0000	Water	2					2	X		—	
3	TB-ROX-030413-ST	✓	0000	Water					2	2		X	—	
														5J3
														3.0"

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	FED EX	3/4/13	1345
Fed.ex	[signature]	3/6/13	9:30

05/2/08 Revision

5.1

MC18673: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC18673 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 3/6/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SO CENTRAL AVE No. Coolers: 1 Airbill #'s:

Cooler Security	Y or N		Y or N
1. Custody Seals Present	☑ ☐	3 COC Present	☑ ☐
2. Custody Seals Intact	☑ ☐	4 Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	Infered gun
3 Cooler media	Ice (bag)

Quality Control Preservatio	Y or N	N/A
1. Trip Blank present / cooler	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly	☑ ☐	
4 VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles.	☑ ☐
2. Container labeling complete	☑ ☐
3 Sample container label / COC agree	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2 All containers accounted for:	☑ ☐
3 Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear	☑ ☐	
2 Bottles received for unspecified tests	☐ ☑	
3 Sufficient volume recvd for analysis.	☑ ☐	
4. Compositing instructions clear.	☐ ☐	☑
5. Filtering instructions clear	☐ ☐	☑

Comments

Accutest Laboratories
V 508 481 6200

495 Technology Center West, Bldg One
F 508 481 7753

Marlborough, MA
www.accutest.com

5.1

MC18673: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC18673

URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

5.2

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC18673-1 Collected: 04-MAR-13 12:30 By: MCCW Received: 06-MAR-13 By: MW4-ROX-030413						
MC18673-1	SW846 8011	06-MAR-13 22:17	CZ	06-MAR-13	BJ	V8011SL
MC18673-1	SW846 8260B	07-MAR-13 10:43	AMY			V8260SL+
MC18673-2 Collected: 04-MAR-13 00:00 By: MCCW Received: 06-MAR-13 By: TB-ROX-030413-HCL						
MC18673-2	SW846 8260B	07-MAR-13 10:15	AMY			V8260SL+
MC18673-3 Collected: 04-MAR-13 00:00 By: MCCW Received: 06-MAR-13 By: TB-ROX-030413-ST						
MC18673-3	SW846 8011	06-MAR-13 22:45	CZ	06-MAR-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL
Received: 03/06/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC18673-1.1	VOC Ref #5	Tomasz Torski	03/06/13 10:08	Retrieve from Storage
MC18673-1.1	Tomasz Torski	GCMSL	03/06/13 10:08	Load on Instrument
MC18673-1.1	GCMSL	Tomasz Torski	03/07/13 09:58	Unload from Instrument
MC18673-1.1	Tomasz Torski	VOC Ref #5	03/07/13 09:58	Return to Storage
MC18673-1.2	VOC Ref #5	Amy Min Yang	03/07/13 09:01	Retrieve from Storage
MC18673-1.2	Amy Min Yang	GCMSM	03/07/13 09:01	Load on Instrument
MC18673-1.2	GCMSM	Amy Min Yang	03/08/13 10:22	Unload from Instrument
MC18673-1.2	Amy Min Yang	VOC Ref #5	03/08/13 10:23	Return to Storage
MC18673-1.4	VOC Ref #5	Bijan Jafari	03/06/13 14:25	Retrieve from Storage
MC18673-2.1	VOC Ref #5	Amy Min Yang	03/07/13 09:01	Retrieve from Storage
MC18673-2.1	Amy Min Yang	GCMSM	03/07/13 09:01	Load on Instrument
MC18673-2.1	GCMSM	Amy Min Yang	03/08/13 10:22	Unload from Instrument
MC18673-2.1	Amy Min Yang	VOC Ref #5	03/08/13 10:23	Return to Storage
MC18673-2.2	VOC Ref #5	Tomasz Torski	03/06/13 10:08	Retrieve from Storage
MC18673-2.2	Tomasz Torski	GCMSL	03/06/13 10:08	Load on Instrument
MC18673-2.2	GCMSL	Tomasz Torski	03/07/13 09:58	Unload from Instrument
MC18673-2.2	Tomasz Torski	VOC Ref #5	03/07/13 09:58	Return to Storage
MC18673-3.1	VOC Ref #5	Bijan Jafari	03/06/13 14:25	Retrieve from Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1857-MB	M54546.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	5.0	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.3	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.58	ug/l	
75-25-2	Bromoform	ND	1.0	0.78	ug/l	
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroethane	ND	2.0	0.50	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.3	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	0.73	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.65	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.53	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.7	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.62	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.64	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.6	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1857-MB	M54546.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.45	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	
123-91-1	1,4-Dioxane	ND	25	15	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.1	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.58	ug/l	
100-42-5	Styrene	ND	5.0	0.45	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	ND	1.0	0.51	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.29	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ug/l	
	m,p-Xylene	ND	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	

6.1.1

Method Blank Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1857-MB	M54546.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

6.1.1

Blank Spike Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1857-BS	M54544.D	1	03/07/13	AMY	n/a	n/a	MSM1857

6.2.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	77.8	156* a	70-130
107-02-8	Acrolein	250	201	80	70-130
107-13-1	Acrylonitrile	50	49.3	99	70-130
71-43-2	Benzene	50	48.5	97	70-130
108-86-1	Bromobenzene	50	54.2	108	70-130
74-97-5	Bromochloromethane	50	50.4	101	70-130
75-27-4	Bromodichloromethane	50	50.6	101	70-130
75-25-2	Bromoform	50	49.9	100	70-130
74-83-9	Bromomethane	50	41.6	83	70-130
78-93-3	2-Butanone (MEK)	50	55.1	110	70-130
104-51-8	n-Butylbenzene	50	55.3	111	70-130
135-98-8	sec-Butylbenzene	50	53.9	108	70-130
98-06-6	tert-Butylbenzene	50	52.5	105	70-130
75-15-0	Carbon disulfide	50	44.0	88	70-130
56-23-5	Carbon tetrachloride	50	49.0	98	70-130
108-90-7	Chlorobenzene	50	48.5	97	70-130
75-00-3	Chloroethane	50	43.8	88	70-130
110-75-8	2-Chloroethyl vinyl ether	50	50.0	100	70-130
67-66-3	Chloroform	50	50.0	100	70-130
74-87-3	Chloromethane	50	42.9	86	70-130
95-49-8	o-Chlorotoluene	50	50.3	101	70-130
106-43-4	p-Chlorotoluene	50	51.6	103	70-130
124-48-1	Dibromochloromethane	50	51.4	103	70-130
95-50-1	1,2-Dichlorobenzene	50	50.4	101	70-130
541-73-1	1,3-Dichlorobenzene	50	51.1	102	70-130
106-46-7	1,4-Dichlorobenzene	50	53.1	106	70-130
75-71-8	Dichlorodifluoromethane	50	35.4	71	70-130
75-34-3	1,1-Dichloroethane	50	49.4	99	70-130
107-06-2	1,2-Dichloroethane	50	50.6	101	70-130
75-35-4	1,1-Dichloroethene	50	48.1	96	70-130
156-59-2	cis-1,2-Dichloroethene	50	48.8	98	70-130
156-60-5	trans-1,2-Dichloroethene	50	45.2	90	70-130
78-87-5	1,2-Dichloropropane	50	49.3	99	70-130
142-28-9	1,3-Dichloropropane	50	50.8	102	70-130
594-20-7	2,2-Dichloropropane	50	52.6	105	70-130
563-58-6	1,1-Dichloropropene	50	48.6	97	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1857-BS	M54544.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	49.0	98	70-130
10061-02-6	trans-1,3-Dichloropropene	50	53.4	107	70-130
123-91-1	1,4-Dioxane	250	243	97	70-130
97-63-2	Ethyl methacrylate	50	51.2	102	77-137
100-41-4	Ethylbenzene	50	50.1	100	70-130
87-68-3	Hexachlorobutadiene	50	55.1	110	70-130
591-78-6	2-Hexanone	50	66.2	132* a	70-130
98-82-8	Isopropylbenzene	50	52.4	105	70-130
99-87-6	p-Isopropyltoluene	50	57.4	115	70-130
1634-04-4	Methyl Tert Butyl Ether	50	43.6	87	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	50.6	101	70-130
74-95-3	Methylene bromide	50	50.0	100	70-130
75-09-2	Methylene chloride	50	48.5	97	70-130
91-20-3	Naphthalene	50	56.0	112	70-130
103-65-1	n-Propylbenzene	50	51.6	103	70-130
100-42-5	Styrene	50	49.8	100	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	51.3	103	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	53.0	106	70-130
127-18-4	Tetrachloroethene	50	51.7	103	70-130
108-88-3	Toluene	50	50.4	101	70-130
87-61-6	1,2,3-Trichlorobenzene	50	54.6	109	70-130
120-82-1	1,2,4-Trichlorobenzene	50	54.6	109	70-130
71-55-6	1,1,1-Trichloroethane	50	48.0	96	70-130
79-00-5	1,1,2-Trichloroethane	50	49.1	98	70-130
79-01-6	Trichloroethene	50	48.5	97	70-130
75-69-4	Trichlorofluoromethane	50	42.1	84	70-130
96-18-4	1,2,3-Trichloropropane	50	54.9	110	70-130
95-63-6	1,2,4-Trimethylbenzene	50	52.6	105	70-130
108-67-8	1,3,5-Trimethylbenzene	50	52.9	106	70-130
108-05-4	Vinyl Acetate	50	47.7	95	70-130
75-01-4	Vinyl chloride	50	41.3	83	70-130
	m,p-Xylene	100	101	101	70-130
95-47-6	o-Xylene	50	49.3	99	70-130
1330-20-7	Xylene (total)	150	150	100	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1857-BS	M54544.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	87%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

6.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC18559-1MS	M54550.D	1	03/07/13	AMY	n/a	n/a	MSM1857
MC18559-1MSD	M54551.D	1	03/07/13	AMY	n/a	n/a	MSM1857
MC18559-1	M54549.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Compound	MC18559-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	51.2	102	52.2	104	2	70-130/30
107-02-8	Acrolein	ND		250	264	106	271	108	3	70-130/30
107-13-1	Acrylonitrile	ND		50	55.5	111	57.5	115	4	70-130/30
71-43-2	Benzene	ND		50	58.3	117	57.8	116	1	70-130/30
108-86-1	Bromobenzene	ND		50	62.9	126	62.9	126	0	70-130/30
74-97-5	Bromochloromethane	ND		50	56.7	113	57.0	114	1	70-130/30
75-27-4	Bromodichloromethane	ND		50	59.9	120	60.2	120	0	70-130/30
75-25-2	Bromoform	ND		50	58.3	117	58.9	118	1	70-130/30
74-83-9	Bromomethane	ND		50	43.7	87	44.6	89	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	66.7	133* [a]	65.7	131* [a]	2	70-130/30
104-51-8	n-Butylbenzene	ND		50	65.5	131* [a]	65.0	130	1	70-130/30
135-98-8	sec-Butylbenzene	ND		50	64.0	128	63.5	127	1	70-130/30
98-06-6	tert-Butylbenzene	ND		50	61.9	124	61.8	124	0	70-130/30
75-15-0	Carbon disulfide	ND		50	54.5	109	55.3	111	1	70-130/30
56-23-5	Carbon tetrachloride	ND		50	62.9	126	62.1	124	1	70-130/30
108-90-7	Chlorobenzene	ND		50	56.2	112	56.7	113	1	70-130/30
75-00-3	Chloroethane	ND		50	46.7	93	47.3	95	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	1.6	3* [a]	1.6	3* [a]	0	70-130/30
67-66-3	Chloroform	ND		50	56.9	114	57.5	115	1	70-130/30
74-87-3	Chloromethane	ND		50	45.7	91	46.0	92	1	70-130/30
95-49-8	o-Chlorotoluene	ND		50	58.7	117	58.4	117	1	70-130/30
106-43-4	p-Chlorotoluene	ND		50	60.7	121	60.2	120	1	70-130/30
124-48-1	Dibromochloromethane	ND		50	59.7	119	59.7	119	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	58.4	117	58.3	117	0	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	59.6	119	58.8	118	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	62.0	124	62.0	124	0	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	39.6	79	39.1	78	1	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	57.4	115	57.7	115	1	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	58.5	117	58.5	117	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	61.6	123	61.4	123	0	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	56.3	113	58.2	116	3	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	53.8	108	54.1	108	1	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	58.1	116	56.8	114	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	57.9	116	58.3	117	1	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	64.3	129	63.5	127	1	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	63.1	126	61.7	123	2	70-130/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC18559-1MS	M54550.D	1	03/07/13	AMY	n/a	n/a	MSM1857
MC18559-1MSD	M54551.D	1	03/07/13	AMY	n/a	n/a	MSM1857
MC18559-1	M54549.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: **Method:** SW846 8260B

MC18673-1, MC18673-2

CAS No.	Compound	MC18559-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
10061-01-5	cis-1,3-Dichloropropene	ND		50	57.3	115	57.1	114	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	62.1	124	61.3	123	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	280	112	278	111	1	70-130/30
97-63-2	Ethyl methacrylate	ND		50	60.4	121	60.2	120	0	72-139/30
100-41-4	Ethylbenzene	ND		50	59.9	120	60.1	120	0	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	64.0	128	63.4	127	1	70-130/30
591-78-6	2-Hexanone	ND		50	59.6	119	60.7	121	2	70-130/30
98-82-8	Isopropylbenzene	ND		50	62.4	125	62.3	125	0	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	68.0	136* [a]	66.8	134* [a]	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	52.8	106	53.7	107	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	58.6	117	57.8	116	1	70-130/30
74-95-3	Methylene bromide	ND		50	57.8	116	57.9	116	0	70-130/30
75-09-2	Methylene chloride	ND		50	55.4	111	56.3	113	2	70-130/30
91-20-3	Naphthalene	ND		50	62.5	125	63.5	127	2	70-130/30
103-65-1	n-Propylbenzene	ND		50	62.1	124	61.4	123	1	70-130/30
100-42-5	Styrene	ND		50	57.3	115	57.7	115	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	59.8	120	59.9	120	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	60.4	121	60.9	122	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	63.6	127	63.6	127	0	70-130/30
108-88-3	Toluene	ND		50	60.5	121	59.9	120	1	70-130/30
87-61-6	1,2,3-Tricblorobenzene	ND		50	60.7	121	62.2	124	2	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	62.0	124	62.5	125	1	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	59.2	118	59.5	119	1	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	57.1	114	57.3	115	0	70-130/30
79-01-6	Trichloroethene	3.8		50	62.8	118	62.2	117	1	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	43.6	87	43.6	87	0	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	62.8	126	63.2	126	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	61.9	124	61.7	123	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	62.8	126	62.3	125	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	52.9	106	53.5	107	1	70-130/30
75-01-4	Vinyl chloride	ND		50	44.8	90	46.0	92	3	70-130/30
	m,p-Xylene	ND		100	119	119	119	119	0	70-130/30
95-47-6	o-Xylene	ND		50	57.0	114	57.7	115	1	70-130/30
1330-20-7	Xylene (total)	ND		150	176	117	177	118	1	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC18559-1MS	M54550.D	1	03/07/13	AMY	n/a	n/a	MSM1857
MC18559-1MSD	M54551.D	1	03/07/13	AMY	n/a	n/a	MSM1857
MC18559-1	M54549.D	1	03/07/13	AMY	n/a	n/a	MSM1857

The QC reported here applies to the following samples: Method: SW846 8260B

MC18673-1, MC18673-2

CAS No.	Surrogate Recoveries	MS	MSD	MC18559-1	Limits
1868-53-7	Dibromofluoromethane	87%	87%	87%	70-130%
2037-26-5	Toluene-D8	92%	90%	90%	70-130%
460-00-4	4-Bromofluorobenzene	98%	97%	97%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.1

Volatile Internal Standard Area Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	MSM1857-CC1856	Injection Date:	03/07/13
Lab File ID:	M54543.D	Injection Time:	08:23
Instrument ID:	GCMSM	Method:	SW846 8260B

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	657554	9.35	937105	10.24	439417	13.51	519888	16.08	188021	6.85
Upper Limit [a]	1315108	9.85	1874210	10.74	878834	14.01	1039776	16.58	376042	7.35
Lower Limit [b]	328777	8.85	468553	9.74	219709	13.01	259944	15.58	94011	6.35
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSM1857-BS	690591	9.36	991049	10.24	464187	13.51	535422	16.08	200223	6.86
MSM1857-MB	673754	9.36	931348	10.24	418879	13.51	508940	16.08	183225	6.86
MC18673-2	679964	9.36	961327	10.24	430435	13.52	526446	16.08	180607	6.86
MC18673-1	667877	9.36	935697	10.24	416486	13.51	511458	16.08	180647	6.86
MC18559-1	679122	9.36	945409	10.24	430450	13.52	520792	16.08	175837	6.85
MC18559-1MS	710993	9.36	987406	10.24	469651	13.52	541207	16.08	201117	6.86
MC18559-1MSD	695409	9.36	982058	10.24	459679	13.51	537704	16.08	200974	6.85
ZZZZZZ	702610	9.36	984056	10.24	442719	13.52	539839	16.08	200598	6.86
ZZZZZZ	684784	9.36	952830	10.24	430870	13.52	527264	16.08	196844	6.86
ZZZZZZ	678363	9.35	951895	10.24	428904	13.52	526165	16.08	196540	6.85
ZZZZZZ	683369	9.36	958277	10.24	436490	13.52	529780	16.08	201776	6.86
ZZZZZZ	694828	9.36	976531	10.24	439410	13.52	539732	16.08	199098	6.86
ZZZZZZ	668589	9.35	926658	10.24	423132	13.52	517769	16.08	191474	6.86
ZZZZZZ	651877	9.35	911109	10.24	413363	13.52	512301	16.08	174957	6.85
ZZZZZZ	680339	9.36	939629	10.24	424094	13.51	516979	16.08	178884	6.85
ZZZZZZ	664615	9.36	941981	10.24	421272	13.51	512265	16.08	168264	6.86
ZZZZZZ	667610	9.35	943444	10.24	423822	13.51	522004	16.08	187896	6.86
ZZZZZZ	703497	9.36	982771	10.24	435511	13.52	526448	16.08	192475	6.85
ZZZZZZ	742354	9.36	1040372	10.24	448542	13.51	539683	16.08	184587	6.86
ZZZZZZ	742470	9.36	1056344	10.24	461752	13.52	544322	16.08	180366	6.86

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1

Volatile Surrogate Recovery Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8260B Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC18673-1	M54548.D	86.0	89.0	97.0
MC18673-2	M54547.D	89.0	88.0	96.0
MC18559-1MS	M54550.D	87.0	92.0	98.0
MC18559-1MSD	M54551.D	87.0	90.0	97.0
MSM1857-BS	M54544.D	87.0	90.0	98.0
MSM1857-MB	M54546.D	86.0	90.0	97.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.5.1

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32166-MB	BB46084B.D	1	03/05/13	CZ	03/05/13	OP32166	GBB2778

The QC reported here applies to the following samples: Method: SW846 8011

MC18673-1, MC18673-3

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	Bromofluorobenzene (S)	104%	36-173%
460-00-4	Bromofluorobenzene (S)	128%	36-173%

Blank Spike Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32166-BS	BB46085B.D	1	03/05/13	CZ	03/05/13	OP32166	GBB2778

The QC reported here applies to the following samples: Method: SW846 8011

MC18673-1, MC18673-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.073	103	60-140
106-93-4	1,2-Dibromoethane	0.071	0.084	118	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	125%	36-173%
460-00-4	Bromofluorobenzene (S)	130%	36-173%

* = Outside of Control Limits.

7.2.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32166-MS	YZ78424.D	1	03/06/13	CZ	03/06/13	OP32166	GYZ7042
OP32166-MSD	YZ78425.D	1	03/06/13	CZ	03/06/13	OP32166	GYZ7042
MC18600-14	YZ78423.D	1	03/06/13	CZ	03/06/13	OP32166	GYZ7042

The QC reported here applies to the following samples: Method: SW846 8011

MC18673-1, MC18673-3

CAS No.	Compound	MC18600-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dibromo-3-chloropropane	ND		0.071	0.12	169* [a]	0.12	169* [a]	0	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.11	155	0.11	155	0	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC18600-14	Limits
460-00-4	Bromofluorobenzene (S)	174%* [a]	180%* [a]	167%	36-173%
460-00-4	Bromofluorobenzene (S)	151%	149%	147%	36-173%

(a) Outside control limits due to possible matrix interference.

* = Outside of Control Limits.

7.3.1

7

Volatile Surrogate Recovery Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Method: SW846 8011 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 [a]	S1 [b]
MC18673-1	YZ78426.D	103.0	47.0
MC18673-3	YZ78427.D	167.0	125.0
OP32166-BS	BB46085B.D	125.0	130.0
OP32166-MB	BB46084B.D	104.0	128.0
OP32166-MS	YZ78424.D	174.0* [c]	151.0
OP32166-MSD	YZ78425.D	180.0* [c]	149.0

Surrogate Compounds	Recovery Limits
S1 = Bromofluorobenzene (S)	36-173%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1
(c) Outside control limits due to possible matrix interference.

GC Surrogate Retention Time Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GBB2778-ICC2778	Injection Date:	03/05/13
Lab File ID:	BB46079.D	Injection Time:	18:24
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	3.56	3.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB46082B.D	03/05/13	19:42	3.56	3.26
ZZZZZZ	BB46082A.D	03/05/13	19:42	3.56	3.26
OP32154-MB	BB46084.D	03/05/13	20:34	3.56	3.26
OP32153-MB	BB46084A.D	03/05/13	20:34	3.56	3.26
OP32166-MB	BB46084B.D	03/05/13	20:34	3.56	3.26
OP32154-BS	BB46085.D	03/05/13	21:01	3.56	3.25
OP32153-BS	BB46085A.D	03/05/13	21:01	3.56	3.25
OP32166-BS	BB46085B.D	03/05/13	21:01	3.56	3.25
ZZZZZZ	BB46086.D	03/05/13	21:27	3.56	3.26
ZZZZZZ	BB46087A.D	03/05/13	21:53	3.56	3.26
ZZZZZZ	BB46087.D	03/05/13	21:53	3.56	3.26
GBB2778-ECC2778	BB46088.D	03/05/13	22:19	3.56	3.26

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC18673
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 1Q13 GW/ 21562850.03001 900 South Central Avenue, Roxana, IL

Check Std:	GYZ7042-ICC7042	Injection Date:	03/06/13
Lab File ID:	YZ78417.D	Injection Time:	18:07
Instrument ID:	GCYZ	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.03	3.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	YZ78422.D	03/06/13	20:26	4.03	3.77
ZZZZZZ	YZ78422A.D	03/06/13	20:26	4.03	3.77
MC18600-14	YZ78423.D	03/06/13	20:54	4.03	3.78
OP32166-MS	YZ78424.D	03/06/13	21:22	4.03	3.78
OP32166-MSD	YZ78425.D	03/06/13	21:50	4.03	3.78
MC18673-1	YZ78426.D	03/06/13	22:17	4.03	3.78
MC18673-3	YZ78427.D	03/06/13	22:45	4.03	3.78
GYZ7042-ECC704Y	YZ78428.D	03/06/13	23:14	4.03	3.78

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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