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: Equilon Enterprises LLC dba Shell Oil Products US

Facility Address: 900 S. Central Ave; Roxana, IL 62048

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)

2 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

July 3, 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 – 2nd 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 Bob Billman at bob.billman@urs.com (314/743-4108).

Sincerely,

URS Corporation, on behalf of Shell Oil Products US

Wendy Pennington
Environmental Engineer

Robert B. Billman
Senior Project Manager

Enclosures: RCRA Facility Groundwater, Leachate and Gas Reporting Form and report (original plus 2 copies)

Cc: Kevin Dyer, SOPUS
Marty Reynolds, Village of Roxana
Eric Petersen, Phillips 66
Amy Boley, IEPA, Springfield
Gina Search, IEPA, Collinsville
Repositories – Roxana Public Works, Roxana Public Library, website

1001 Highland Plaza Drive West, Suite 300
St. Louis, MO 63110
Phone: 314.429.0100
Fax: 314.429.0462

REPORT

INTERIM GROUNDWATER MONITORING PROGRAM – 2ND QUARTER 2013

Roxana, Illinois

Prepared for:

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

July 2013

URS Corporation
1001 Highlands Plaza Drive West, Suite 300
St. Louis, MO 63110
(314) 429-0100
Project 21562850.03002

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URS Corporation (URS) is submitting this report on behalf of Shell Oil Products US (SOPUS) for the 2nd Quarter 2013 (2Q13) 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 addressed 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). 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.

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 samples were collected and analyzed during 2Q13 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. Lastly, in an April 8, 2013, letter from IEPA to SOPUS (IEPA, 2013), IEPA requested a discussion of irregular potentiometric contours in the ROST-4-PZ area and P-60 area wells. This request has been reviewed, and work is currently being conducted to address the request.

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 2Q13 sampling event:

- Weekly groundwater monitoring well gauging of selected WRR and Village wells continues in order to assess groundwater control at the WRR.
- New groundwater monitoring well MW-24 was installed in the Village during 1Q13 and was sampled during 2Q13. Installation activities and analytical data for groundwater monitoring well MW-24 can be found in the *Addendum to Monitoring Well and Vapor Monitoring Point Installation Report – Supplemental Investigation Activities* dated May 22, 2013 (URS, 2013b).
- Groundwater monitoring well P-54 was resampled on May 3, 2013 due to an anomalous result from the initial sample. Both sets of data are included in this report.
- At their request, split samples were taken with the IEPA on the following groundwater monitoring wells: ROST-3-MW, ROST-4-PZ(A), ROST-4-PZ(F), ROST-4-PZ(G), MW-18, MW-21, MW-22, and MW-24. Of these monitoring wells, the following five monitoring wells are not part of the Interim Groundwater Monitoring Program: ROST-4-PZ(A), ROST-4-PZ(F), ROST-4-PZ(G), MW-18, and MW-21.

2.2 GROUNDWATER MONITORING WELL GAUGING AND SAMPLING

Groundwater Monitoring Well Gauging

The comprehensive groundwater monitoring well gauging event was conducted between April 1 and 3, 2013. The 2Q13 gauging activities were conducted in conjunction with the 2Q13 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 April 3 through April 15, 2013. A groundwater monitoring well confirmation sample was collected from P-54 on May 3, 2013, and is discussed in **Section 3.3**.

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-18, MW-21, MW-22, MW-24, P-54 through P-59, P-66, P-74, P-93D, ROST-3-MW, ROST-4-PZ(A), ROST-4-PZ(C), ROST-4-PZ(F), ROST-4-PZ(G), 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 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

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

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 Standard Operating Procedure (SOP), due to low volumes of water. Groundwater monitoring well P-68, located inside the WRR, 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 April 2013 (URS, 2013a), 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 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 fluid and purge water related to, or generated from, work within the WRR was 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 2Q13 groundwater sampling event.

3.1 GROUNDWATER MONITORING WELL GAUGING RESULTS

Comprehensive groundwater monitoring well gauging for the 2Q13 event was conducted between April 1 and 3, 2013. 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 in most wells have dropped approximately 0.5 to 1 foot since 1Q13; however, water levels continue to be above the top of the screens in many of the wells gauged during the 2Q13 event. The potentiometric surface observed during the 2Q13 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 2Q13. During the 2Q13 comprehensive groundwater gauging, groundwater was encountered in ROST-7-PZ and was not encountered in ROST-5-PZ, ROST-10-PZ, and ROST-21-PZ. The 2Q13 gauging results for perched groundwater monitoring wells and piezometers can be found in **Table 1**.

During the 2Q13 groundwater monitoring well gauging event, LNAPL was detected in nine groundwater monitoring wells, eight of which are in the WRR **(Table 1)**. LNAPL thicknesses in the WRR ranged from 0.01 to 1.86 feet, and 0.08 feet in the Village. Of the nine groundwater monitoring wells, LNAPL was observed above the top of the groundwater monitoring well screen in P-61, located in the WRR. LNAPL was observed within the screened intervals of P-60, P-60-S, P-62, P-67, P-68, P-92A, and T-24, which are in the WRR, and ROST-4-PZ, which is in the Village.

LNAPL observed in groundwater monitoring wells located on the WRR property was removed for on-site reprocessing by P66. LNAPL observed in groundwater monitoring wells within the Village was not of sufficient thickness for removal activities to be performed. LNAPL removal in the Village and WRR is conducted during quarterly and weekly gauging events. **Figures 4a and 4b** illustrate the measured LNAPL thickness observed during the 2Q13 gauging event.

3.2 DATA QUALITY REVIEW RESULTS

A total of ten sample delivery groups (SDGs) were prepared and sent to Accutest Laboratories in Marlborough, MA for the 2Q13 event. Forty-five different groundwater sample sets were prepared and analyzed for VOCs and SVOCs (including PAHs). This included 35 different

investigative sample sets, 4 field duplicate sets, and 2 matrix spike/matrix spike duplicate (MS/MSD) sets. These SDGs are presented in **Appendix B**.

Two additional SDGs were composed of the split samples performed with the IEPA. Eight different groundwater sample sets were prepared and analyzed for VOCs. This included five different investigative sample sets, one field duplicate set, and one MS/MSD set. These SDGs are also presented in **Appendix B**.

Trip blanks (TBs), equipment blanks (EBs), and laboratory method blanks were collectively analyzed to evaluate for the existence and magnitude of any contamination resulting from field and laboratory activities. Five EB sets were collected for this quarter (four EBs for Roxana Quarterly SDGs, and one EB for IEPA SDGs). A TB set was included in every cooler which contained samples for VOC analysis. A total of fourteen TB sets (twelve TB sets for Roxana Quarterly and two TB sets for IEPA SDGs) were analyzed for groundwater VOCs. 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**.

The analytical results from IEPA's split samples are presented in **Appendix C**. The data collected by URS were generally comparable to that collected by IEPA (e.g., constituent concentrations were equal to or higher in the URS-collected samples in 29 of 41 detections).

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 2Q13 sampling event. Italic font denotes constituent detected for the first time.

VOCs	
Benzene	*4-Methyl-2-pentanone*(Methyl Isobutyl Ketone)
2-Butanone	Methyl tert-Butyl Ether (MTBE)
n-Butylbenzene	Naphthalene[4]
sec-Butylbenzene	n-Propylbenzene
tert-Butylbenzene	Toluene
Chloroethane	1,2,4-Trimethylbenzene
Cymene(p-Isopropyltoluene)	1,3,5-Trimethylbenzene
Ethylbenzene	m,p-Xylene
2-Hexanone(Methyl N-Butyl Ketone)	o-Xylenes
Isopropylbenzene (Cumene)	Xylenes (total)
SVOCs	
Acenapthene	Fluoranthene
Acenaphthylene	Fluorene
Benzo(a)anthracene	1-Methylnaphthalene
Benzo(a)pyrene	2-Methylnaphthalene
Benzo(b)fluoranthene	2-Methylphenol(o-Cresol)
Benzoic Acid	3&4-Methylphenol(m&p-Cresol)
bis(2-Ethylhexyl)phthalate	Phenanthrene
Chrysene (1,2-Benzphenanthracene)	Phenol
Dibenzofuran	Pyrene
2,4-Dimethylphenol	

Two VOCs, 2-butanone and 4-methyl-2-pentanone(methyl isobutyl ketone), 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, cymene(p-

[4] Beginning in 4Q12, naphthalene was analyzed via 8260 VOC, and prior historic results were reported by PAH analysis.
[5] IEPA requested that the Interim Groundwater Program be consistent with the RCRA Part B Permit.

isopropyltoluene), 2-hexanone(methyl n-butyl ketone), 4-methyl-2-pentanone(methyl isobutyl ketone), 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, ethylbenzene, MTBE, naphthalene, toluene, and 1,3,5-trimethylbenzene. The laboratory analytical results for the following SVOCs exceeded their respective groundwater screening criteria in one or more samples this event: benzo(a)anthracene, 2-methylnaphthalene, 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 2Q13.

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 2Q13 Roxana Interim Groundwater Monitoring Program and the following conclusions are based on the data and information collected as part of this program.

- During 2Q13, groundwater flow from the Investigation Area moved toward groundwater depression wells at the WRR. Groundwater levels were approximately 0.5 to 1 foot 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.
- The analytical results from 2Q13 are generally similar to the prior quarter. Initial data from P-54 were found to be anomalous due to carry over from the previous sample collected, so a confirmation sample was taken on May 3, 2013. The analytical results from the confirmation sample were similar to data from previous quarters. A review of sampling protocol has been performed to alleviate a similar issue going forward.

35 Illinois Administrative Code 620, Groundwater Quality. Subpart D. *Groundwater Quality Standards*.

35 Illinois Administrative Code 742, Tiered Approach to Corrective Action Objectives. Appendix B. *Table E – Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route*.

Illinois Environmental Protection Agency (IEPA) Toxicity Assessment Unit. *Chemicals Not in TACO, Tier 1 Tables*. http://www.epa.state.il.us/land/taco/chemicals-not-in-taco-tier-1-tables.html.

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), 2011; *Corrective Action Letter for the West Fenceline*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated January 16, 2011.

Illinois Environmental Protection Agency (IEPA), 2011; *RCRA Response to Groundwater for Second Quarter 2011*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated August 31, 2011.

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.

Illinois Environmental Protection Agency (IEPA), 2013, *Hazardous Waste Management RCRA Post-Closure Permit*. Issued to Shell Oil Products US (SOPUS) at the WRB Refining LP (WRB) Wood River Refinery (WRR), issued September 23, 2010; effective October 28, 2010; modified April 2, 2013.

Illinois Environmental Protection Agency (IEPA), 2013, (IEPA, 2013), *Approval with Conditions for the Roxana 4Q10 and 2Q12 Groundwater Monitoring Program Reports.* Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated April 8, 2013.

R08-18, Final Amendments to Groundwater Quality Standards, 35 Illinois Administrative Code 620 (35 IAC 620).

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

URS Corporation (URS), 2013 (URS, 2013b); *Addendum to Monitoring Well and Vapor Monitoring Point Installation Report – Supplemental Investigation Activities*; dated May 22, 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 wel
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		*
	442 65	3/11/2013	NE	42 59	NA	NA	NA	400 06		*
2Q13	442 65	4/1/2013	NE	42 63	NA	NA	NA	400 02		*
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 wel
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		*
2Q13	443 77	4/1/2013	NE	43 81	NA	NA	NA	399 96		*
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 wel
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		*
	430 08	3/11/2013	NE	29 88	NA	NA	NA	400 20		*
2Q13	430 08	4/1/2013	NE	29 88	NA	NA	NA	400 20		*
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 wel
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		*
2Q13	441 14	4/1/2013	NE	41 00	NA	NA	NA	400 14		*
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 wel
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		*
2Q13	429 80	4/1/2013	NE	29 53	NA	NA	NA	400 27		*
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 wel
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		*
2Q13	432 14	4/1/2013	NE	31 57	NA	NA	NA	400 57		*

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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		*
2Q13	432 29	4/1/2013	NE	31 63	NA	NA	NA	400 66		*
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		*
2Q13	432 11	4/1/2013	NE	31 40	NA	NA	NA	400 71		*
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		*
2Q13	431 99	4/1/2013	NE	31 26	NA	NA	NA	400 73		*
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		*
2Q13	443 10	4/1/2013	NE	42 90	NA	NA	NA	400 20		*
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		*
2Q13	434 11	4/1/2013	NE	33 94	NA	NA	NA	400 17		
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	NM	NM	NA	NA	NA	NA		
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		*
	445 20	3/11/2013	NE	44 70	NA	NA	NA	400 50		*
2Q13	445 20	4/1/2013	NE	44 76	NA	NA	NA	400 44		*

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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-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		*
	445 03	3/11/2013	NE	44 61	NA	NA	NA	400 42		
2Q13	445 03	4/1/2013	NE	44 72	NA	NA	NA	400 31		
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		*
	442 33	3/11/2013	NE	42 15	NA	NA	NA	400 18		
2Q13	442 33	4/1/2013	NE	42 18	NA	NA	NA	400 15		
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		*
	442 60	3/11/2013	NE	42 46	NA	NA	NA	400 14		
2Q13	442 60	4/1/2013	NE	42 46	NA	NA	NA	400 14		
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		
2Q13	430 27	4/2/2013	NE	29 62	NA	NA	NA	400 65		
MW-14										
1Q12	434 44	1/3/2012	NM	NM	NA	NA	NA	NA	401 02 - 391 02 (33 42 - 43 42)	
2Q12	434 44	4/2/2012	NM	NM	NA	NA	NA	NA		
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		*
2Q13	434 44	4/2/2013	NE	33 68	NA	NA	NA	400 76		
MW-16										
1Q13	443 39	1/23/2013	NE	43 05	NA	NA	NA	400 34	405 96 - 395 96 (37 43 - 47 43)	Installed during 4Q12
2Q13	443 39	4/1/2013	NE	43 55	NA	NA	NA	399 84		
MW-17										
1Q13	441 57	2/11/2013	NE	41 75	NA	NA	NA	399 82	407 02 - 392 02 (34 55 - 49 55)	Installed during 4Q12
2Q13	441 57	4/1/2013	NE	41 85	NA	NA	NA	399 72		
MW-18										
1Q13	442 04	2/11/2013	NE	42 25	NA	NA	NA	399 79	406 79 - 391 79 (35 25 - 50 25)	Installed during 4Q12
2Q13	442 04	4/1/2013	NE	42 38	NA	NA	NA	399 66		
MW-19										
1Q13	442 77	2/11/2013	NE	42 88	NA	NA	NA	399 89	406 07 - 391 07 (36 70 - 51 70)	Installed during 4Q12
2Q13	442 77	4/1/2013	NE	43 04	NA	NA	NA	399 73		
MW-20										
1Q13	443 67	2/11/2013	NE	43 66	NA	NA	NA	400 01	407 44 - 392 44 (36 23 - 51 23)	Installed during 4Q12
2Q13	443 67	4/1/2013	NE	43 89	NA	NA	NA	399 78		
MW-21										
1Q13	443 81	2/11/2013	NE	43 53	NA	NA	NA	400 28	408 51 - 393 51 (35 30 - 50 30)	Installed during 4Q12
2Q13	443 81	4/1/2013	NE	43 79	NA	NA	NA	400 02		
MW-22										
1Q13	442 16	1/23/2013	NE	41 80	NA	NA	NA	400 36	403 95 - 393 95 (38 21 - 48 21)	Installed during 4Q12
2Q13	442 16	4/1/2013	NE	42 31	NA	NA	NA	399 85		
MW-24										
2Q13	443 42	4/1/2013	NE	43 44	NA	NA	NA	399 98	404 53 - 394 53 (38 89 - 48 89)	Installed during 1Q13

TABLE 1
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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-01										
3Q10	442 56	7/1/2010	NE	29 49	NA	NA	NA	413 07	380 61 - 375 61 (61 95 - 66 95)	*
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		*
2Q13	442 56	4/1/2013	NE	33 68	NA	NA	NA	408 88		*
P-4U										
3Q10	442 50	7/1/2010	NE	31 00	NA	NA	NA	411 50	361 35 - 359 35 (81 15 - 83 15)	*
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		*
2Q13	442 50	4/1/2013	NE	35 95	NA	NA	NA	406 55		*
P-5L										
3Q10	443 79	7/1/2010	NE	30 30	NA	NA	NA	413 49	301 89 - 299 89 (141 90 - 143 90)	*
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		*
2Q13	443 79	4/1/2013	NE	35 84	NA	NA	NA	407 95		*
P-5U										
3Q10	444 15	7/1/2010	NE	31 95	NA	NA	NA	412 20	313 52 - 311 52 (130 63 - 132 63)	*
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		*
2Q13	444 15	4/1/2013	NE	37 24	NA	NA	NA	406 91		*
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		
2Q13	443 20	4/1/2013	NE	35 19	NA	NA	NA	408 01		
P-6U										
3Q10	443 35	7/1/2010	NE	31 43	NA	NA	NA	411 92	362 85 - 360 85 (80 50 - 82 50)	*
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		*
2Q13	443 35	4/1/2013	NE	36 88	NA	NA	NA	406 47		*
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		
2Q13	443 42	4/1/2013	NE	36 17	NA	NA	NA	407 25		

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-7U										
3Q10	443 80	7/1/2010	NE	31 63	NA	NA	NA	412 17	382 72 - 380 72 (61 08 - 63 08)	*
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		*
2Q13	443 80	4/1/2013	NE	37 12	NA	NA	NA	406 68		*
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		
2Q13	443 10	4/1/2013	NE	36 23	NA	NA	NA	406 87		
P-8U										
3Q10	443 70	7/1/2010	NE	32 28	NA	NA	NA	409 59	381 77 - 379 77 (60 10 - 62 10)	*
4Q10	443 70	10/1/2010	NE	31 14	NA	NA	NA	410 73		*
1Q11	441 87	1/1/2011	NE	30 79	NA	NA	NA	412 91		*
2Q11	441 87	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		*
	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		*
2Q13	441 87	4/1/2013	NE	37 30	NA	NA	NA	404 57		*
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		
2Q13	444 41	4/1/2013	NE	40 80	NA	NA	NA	403 61		
P-9U										
3Q10	444 91	7/1/2010	NE	38 85	NA	NA	NA	406 06	344 32 - 342 32 (100 59 - 102 59)	*
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		*
2Q13	444 91	4/1/2013	NE	41 20	NA	NA	NA	403 71		*
P-11L										
3Q10	442 80	7/1/2010	NE	33 22	NA	NA	NA	409 58	332 59 - 330 59 (110 21 - 112 21)	*
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		*
2Q13	442 80	4/1/2013	NE	37 97	NA	NA	NA	404 83		*
P-11U										
3Q10	443 09	7/1/2010	NE	33 83	NA	NA	NA	409 26	343 17 - 341 17 (99 92 - 101 92)	*
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		*
2Q13	443 09	4/1/2013	NE	38 62	NA	NA	NA	404 47		*

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-14										
3Q10	442 65	7/1/2010	NE	29 56	NA	NA	NA	413 09	395 32 - 385 32 (47 33 - 57 33)	*
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		*
2Q13	442 65	4/1/2013	NE	33 74	NA	NA	NA	408 91		*
P-15										
3Q10	443 35	7/1/2010	NE	31 68	NA	NA	NA	411 67	397 90 - 387 90 (45 45 - 55 45)	*
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		*
2Q13	443 35	4/1/2013	NE	36 46	NA	NA	NA	406 89		*
P-16										
3Q10	442 31	7/1/2010	NE	30 32	NA	NA	NA	411 99	396 57 - 386 57 (45 74 - 55 74)	*
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		*
2Q12	442 31	NA	NM	NM	NA	NA	NA	NA		
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		*
2Q13	442 31	4/1/2013	NE	35 55	NA	NA	NA	406 76		*
P-43										
3Q10	444 07	7/1/2010	NE	34 68	NA	NA	NA	409 39	380 51 - 370 51 (63 56 - 73 56)	*
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		*
2Q13	444 07	4/1/2013	NE	39 10	NA	NA	NA	404 97		*
P-53										
3Q10	446 23	7/1/2010	NE	40 83	NA	NA	NA	405 40	407 73 - 382 73 (38 50 - 63 50)	
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	NM	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		
2Q13	446 23	4/1/2013	NE	44 29	NA	NA	NA	401 94		
P-54										
3Q10	442 18	7/1/2010	NE	37 33	NA	NA	NA	404 85	404 18 - 379 18 (38 00 - 63 00)	*
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		
2Q13	442 18	4/1/2013	NE	42 26	NA	NA	NA	399 92		

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-55										
3Q10	445 95	7/1/2010	NE	41 81	NA	NA	NA	404 14	406 13 - 381 13 (39 82 - 64 82)	
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	445 95	1/8/2013	NE	45 24	NA	NA	NA	400 71		Replaced P-55 during 4Q12
2Q13	443 78	4/2/2013	NE	43 87	NA	NA	NA	399 91	402 93 - 392 93 (40 85 - 50 85)	
P-56										
3Q10	446 02	7/1/2010	NE	41 99	NA	NA	NA	404 03	405 20 - 380 20 (40 82 - 65 82)	
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		
2Q13	446 02	4/2/2013	NE	46 40	NA	NA	NA	399 62		
P-57										
3Q10	446 53	7/1/2010	NE	41 60	NA	NA	NA	404 93	406 07 - 381 07 (40 46 - 65 46)	
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		
2Q13	446 53	4/2/2013	NE	46 63	NA	NA	NA	399 90		
P-58										
3Q10	444 92	7/1/2010	39 42	39 46	405 46	405 50	0 04	405 49	404 70 - 379 70 (40 21 - 65 21)	*
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		*
2Q11	444 92	4/25/2011	NE	39 78	NA	NA	NA	405 14		*
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		
2Q13	444 92	4/2/2013	NE	44 75	NA	NA	NA	400 17		
P-59										
3Q10	446 78	7/1/2010	43 21	43 23	403 55	403 57	0 02	403 57	398 87 - 373 87 (47 91 - 72 91)	*
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		*
2Q11	446 78	4/25/2011	43 25	43 26	403 52	403 53	0 01	403 53		*
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		*
2Q13	446 78	4/2/2013	NE	47 20	NA	NA	NA	399 58		*

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										
3Q10	446 57	7/1/2010	42 61	43 18	403 39	403 96	0 57	403 85	403 12 - 383 12 (43 45 - 63 45)	*
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		
2Q13	446 57	4/2/2013	46 96	47 04	399 53	399 61	0 08	399 60		
P-60-11										
4Q10	443 39	11/11/2010	NE	40 91	NA	NA	NA	402 48	393 08 - 378 08 (50 31 - 65 31)	*
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		
2Q13	446 18	4/2/2013	NE	45 72	NA	NA	NA	400 46		
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		*
2Q13	443 31	4/2/2013	NE	43 77	NA	NA	NA	399 54		*
P-60-12S										
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		
2Q13	443 33	4/2/2013	NM	NM	NA	NA	NA	NA		
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		
2Q13	442 43	4/2/2013	NM	NM	NA	NA	NA	NA		
P-60-13S										
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
2Q13	442 39	4/2/2013	NM	NM	NA	NA	NA	NA		
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)	
	446 98	9/19/2011	39 40	39 61	407 37	407 58	0 21	407 54		
4Q11	446 98	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	446 98	4/2/2013	46 33	46 39	400 59	400 65	0 06	400 64		

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-61										
3Q10	444 27	7/1/2010	41 04	41 18	403 09	403 23	0 14	403 20	398 59 - 373 59 (45 68 - 70 68)	*
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		*
2Q13	444 27	4/2/2013	44 78	46 64	397 63	399 49	1 86	399 12		*
P-62										
3Q10	442 32	7/1/2010	38 51	39 96	402 36	403 81	1 45	403 52	400 85 - 375 85 (41 47 - 66 47)	*
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		*
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		*
2Q13	442 32	4/2/2013	42 81	44 32	398 00	399 51	1 51	399 21		
P-63										
3Q10	445 75	7/1/2010	42 32	42 52	403 23	403 43	0 20	403 39	398 46 - 373 46 (47 29 - 72 29)	*
4Q10	445 75	10/1/2010	40 58	40 79	404 96	405 17	0 21	405 13		*
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		*
2Q13	445 75	4/1/2013	NE	46 98	NA	NA	NA	398 77		*
P-64										
3Q10	446 52	7/1/2010	43 46	43 61	402 91	403 06	0 15	403 03	399 29 - 374 29 (47 23 - 72 23)	*
4Q10	446 52	10/1/2010	41 45	41 56	404 96	405 07	0 11	405 05		*
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		
2Q13	446 52	4/1/2013	NE	48 23	NA	NA	NA	398 29		
P-65										
3Q10	444 53	7/1/2010	44 34	44 35	400 18	400 19	0 01	400 19	396 91 - 371 91 (47 62 - 72 62)	*
4Q10	444 53	10/1/2010	38 61	38 63	405 90	405 92	0 02	405 92		*
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		*
2Q13	444 53	4/1/2013	NM	NM	NA	NA	NA	NA		
P-66										
3Q10	436 70	7/1/2010	30 81	30 83	405 87	405 89	0 02	405 89	401 98 - 376 98 (34 72 - 59 72)	*
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		
2Q12	436 70	4/2/2012	NM	NM	NA	NA	NA	NA		
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		
2Q13	436 70	4/2/2013	NE	36 41	NA	NA	NA	400 29		

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-67										
3Q10	444 13	7/1/2010	37 27	37 46	406 67	406 86	0 19	406 82	402 16 - 377 16 (41 98 - 66 98)	*
4Q10	444 13	10/1/2010	36 27	36 31	407 82	407 86	0 04	407 85		*
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		*
2Q13	444 13	4/2/2013	42 79	42 80	401 33	401 34	0 01	401 34		
P-68										
3Q10	445 07	7/1/2010	40 50	44 65	400 42	404 57	4 15	403 74	399 81 - 374 81 (45 26 - 70 26)	*
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	1/4/2013	NM	NM	NA	NA	NA	NA		
2Q13	445 07	4/2/2013	45 40	45 54	399 53	399 67	0 14	399 64		
P-69										
3Q10	443 18	7/1/2010	NE	40 14	NA	NA	NA	403 04	402 36 - 377 36 (40 82 - 65 82)	*
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		
2Q13	443 18	4/2/2013	NE	43 94	NA	NA	NA	399 24		
P-70										
3Q10	442 83	7/1/2010	39 42	39 86	402 97	403 41	0 44	403 32	398 16 - 373 16 (44 67 - 69 67)	*
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		*
2Q13	442 83	4/2/2013	NE	43 59	NA	NA	NA	399 24		*
P-71										
3Q10	444 83	7/1/2010	NE	40 20	NA	NA	NA	404 63	402 22 - 377 22 (42 61 - 67 61)	*
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		
2Q13	444 83	4/2/2013	NE	44 54	NA	NA	NA	400 29		
P-72										
3Q10	444 43	7/1/2010	NM	NM	NA	NA	NA	NA	398 66 - 373 66 (45 77 - 70 77)	
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		*
2Q13	444 43	4/1/2013	NE	44 23	NA	NA	NA	400 20		*

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										
3Q10	443 76	7/1/2010	40 24	41 26	402 50	403 52	1 02	403 32	402 17 - 377 17 (41 60 - 66 60)	*
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		
2Q13	443 76	4/1/2013	NE	43 93	NA	NA	NA	399 83		
P-74										
3Q10	442 63	7/1/2010	NE	38 88	NA	NA	NA	403 75	398 20 - 373 20 (44 43 - 69 43)	*
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		*
2Q13	442 63	4/2/2013	NE	43 23	NA	NA	NA	399 40		*
P-75										
3Q10	446 32	7/1/2010	40 58	40 87	405 45	405 74	0 29	405 69	403 19 - 378 19 (43 13 - 68 13)	*
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	NE	42 14	NA	NA	NA	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		
2Q13	446 32	4/2/2013	NE	46 03	NA	NA	NA	400 29		
P-82A										
3Q10	434 69	7/1/2010	NE	25 00	NA	NA	NA	409 69	401 48 - 386 48 (33 21 - 48 21)	*
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		*
2Q13	434 69	4/2/2013	NE	30 77	NA	NA	NA	403 92		*
P-82B										
3Q10	434 44	7/1/2010	NE	24 71	NA	NA	NA	409 73	370 84 - 368 84 (63 60 - 65 60)	*
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		*
2Q13	434 44	4/2/2013	NE	30 50	NA	NA	NA	403 94		*
P-82C										
3Q10	434 16	7/1/2010	NE	25 47	NA	NA	NA	408 69	351 39 - 349 39 (82 77 - 84 77)	*
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		*
2Q13	434 16	4/2/2013	NE	30 54	NA	NA	NA	403 62		*

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										
3Q10	434 85	7/1/2010	NE	25 20	NA	NA	NA	409 65	323 43 - 321 43 (111 42 - 113 42)	*
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		*
2Q13	434 85	4/2/2013	NE	31 31	NA	NA	NA	403 54		*
P-83A										
3Q10	445 23	7/1/2010	NE	40 64	NA	NA	NA	404 59	398 58 - 383 58 (46 65 - 61 65)	*
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		*
2Q13	445 23	4/2/2013	NE	44 75	NA	NA	NA	400 48		*
P-83B										
3Q10	445 47	7/1/2010	NE	40 91	NA	NA	NA	404 56	375 82 - 373 82 (69 65 - 71 65)	*
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		*
2Q13	445 47	4/2/2013	NE	44 99	NA	NA	NA	400 48		*
P-83C										
3Q10	445 64	7/1/2010	NE	41 08	NA	NA	NA	404 56	353 25 - 351 25 (92 39 - 94 39)	*
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		*
2Q13	445 64	4/2/2013	NE	45 41	NA	NA	NA	400 23		*
P-83D										
3Q10	445 55	7/1/2010	NE	41 00	NA	NA	NA	404 55	311 84 - 309 84 (133 71 - 135 71)	*
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		*
2Q13	445 55	4/2/2013	NE	45 38	NA	NA	NA	400 17		*
P-84A										
3Q10	446 39	7/1/2010	NE	41 55	NA	NA	NA	404 84	392 57 - 377 57 (53 82 - 68 82)	*
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		*
2Q13	446 39	4/3/2013	NE	45 51	NA	NA	NA	400 88		*

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										
3Q10	446 10	7/1/2010	NE	41 28	NA	NA	NA	404 82	372 60 - 370 60 (73 50 - 75 50)	*
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		*
2Q13	446 10	4/3/2013	NE	45 24	NA	NA	NA	400 86		*
P-84C										
3Q10	446 13	7/1/2010	NE	41 32	NA	NA	NA	404 81	352 08 - 350 08 (94 05 - 96 05)	*
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		*
2Q13	446 13	4/3/2013	NE	45 52	NA	NA	NA	400 61		*
P-84D										
3Q10	446 14	7/1/2010	NE	41 34	NA	NA	NA	404 80	324 99 - 322 99 (121 15 - 123 15)	*
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		*
2Q13	446 14	4/3/2013	NE	45 52	NA	NA	NA	400 62		*
P-88A										
3Q10	443 12	7/1/2010	NE	31 80	NA	NA	NA	411 32	404 72 - 389 72 (38 40 - 53 40)	*
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		*
2Q13	443 12	4/2/2013	NE	36 74	NA	NA	NA	406 38		*
P-88B										
3Q10	443 17	7/1/2010	NE	31 86	NA	NA	NA	411 31	370 62 - 368 62 (72 55 - 74 55)	*
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		*
2Q13	443 17	4/2/2013	NE	36 79	NA	NA	NA	406 38		*
P-88C										
3Q10	443 16	7/1/2010	NE	31 85	NA	NA	NA	411 31	350 86 - 348 86 (92 30 - 94 30)	*
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		*
2Q13	443 16	4/2/2013	NE	37 07	NA	NA	NA	406 09		*

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										
3Q10	443 23	7/1/2010	NE	31 87	NA	NA	NA	411 36	329 53 - 327 53 (113 70 - 115 70)	*
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		*
2Q13	443 23	4/2/2013	NE	37 21	NA	NA	NA	406 02		*
T-37										
3Q10	447 15	7/1/2010	NE	39 78	NA	NA	NA	407 37	398 30 - 378 30 (48 86 - 68 86)	*
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		*
2Q13	447 15	4/1/2013	NE	43 79	NA	NA	NA	403 36		*
P-89B										
3Q10	447 35	7/1/2010	NE	39 97	NA	NA	NA	407 38	369 99 - 367 99 (77 36 - 79 36)	*
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		*
2Q13	447 35	4/1/2013	NE	43 96	NA	NA	NA	403 39		*
P-89C										
3Q10	447 68	7/1/2010	NE	40 32	NA	NA	NA	407 36	350 05 - 348 05 (97 63 - 99 63)	*
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		*
2Q13	447 68	4/2/2013	NE	44 28	NA	NA	NA	403 40		*
P-89D										
3Q10	447 54	7/1/2010	NE	40 30	NA	NA	NA	407 24	307 20 - 305 20 (140 34 - 142 34)	*
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		*
2Q13	447 54	4/1/2013	NE	44 20	NA	NA	NA	403 34		*
P-91A										
3Q10	447 19	7/1/2010	44 85	45 36	401 83	402 34	0 51	402 24	395 68 - 380 68 (51 52 - 66 52)	*
4Q10	447 19	10/1/2010	42 70	43 19	404 00	404 49	0 49	404 39		*
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		*
2Q13	447 19	4/1/2013	NE	49 58	NA	NA	NA	397 61		*

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										
3Q10	447 26	7/1/2010	NE	45 08	NA	NA	NA	402 18	372 57 - 370 57 (74 69 - 76 69)	*
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		*
2Q13	447 26	4/1/2013	NE	49 70	NA	NA	NA	397 56		*
P-91C										
3Q10	447 02	7/1/2010	NE	44 83	NA	NA	NA	402 19	352 29 - 350 29 (94 73 - 96 73)	*
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		*
2Q13	447 02	4/2/2013	NE	49 40	NA	NA	NA	397 62		*
P-91D										
3Q10	447 02	7/1/2010	NE	44 77	NA	NA	NA	402 25	278 70 - 276 70 (168 32 - 170 32)	*
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		*
2Q13	447 02	4/1/2013	NE	49 42	NA	NA	NA	397 60		*
P-92A										
3Q10	446 12	7/1/2010	42 43	42 63	403 49	403 69	0 20	403 65	398 55 - 383 55 (47 57 - 62 57)	*
4Q10	446 12	10/1/2010	40 50	40 70	405 42	405 62	0 20	405 58		*
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		*
2Q13	446 12	4/1/2013	47 59	47 71	398 41	398 53	0 12	398 51		
P-92B										
3Q10	446 07	7/1/2010	NE	42 43	NA	NA	NA	403 64	372 42 - 370 42 (73 65 - 75 65)	*
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		*
2Q13	446 07	4/1/2013	NE	47 57	NA	NA	NA	398 50		*
P-92C										
3Q10	445 98	7/1/2010	NE	42 30	NA	NA	NA	403 68	352 54 - 350 54 (93 44 - 95 44)	*
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		*
2Q13	445 98	4/1/2013	NE	47 47	NA	NA	NA	398 51		*

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										
3Q10	445 90	7/1/2010	NE	42 31	NA	NA	NA	403 59	304 90 - 302 90 (141 00 - 143 00)	*
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		*
2Q13	445 90	4/1/2013	NE	47 47	NA	NA	NA	398 43		*
P-93A										
3Q10	446 58	7/1/2010	NE	41 47	NA	NA	NA	405 11	398 41 - 383 41 (48 17 - 63 17)	*
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		*
2Q13	446 58	4/2/2013	NE	46 58	NA	NA	NA	400 00		*
P-93B										
3Q10	446 46	7/1/2010	NE	41 38	NA	NA	NA	405 08	371 86 - 369 86 (74 60 - 76 60)	*
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		*
2Q13	446 46	4/2/2013	NE	46 70	NA	NA	NA	399 76		*
P-93C										
3Q10	446 51	7/1/2010	NE	41 42	NA	NA	NA	405 09	352 26 - 350 26 (94 26 - 96 26)	*
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		*
2Q13	446 51	4/2/2013	NE	46 51	NA	NA	NA	400 00		*
P-93D										
3Q10	446 89	7/1/2010	NE	41 32	NA	NA	NA	405 57	320 92 - 318 92 (125 44 - 127 44)	*
4Q10	446 89	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 36	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		*
2Q13	446 89	4/2/2013	NE	46 67	NA	NA	NA	400 22		*
P-94										
3Q10	444 65	7/1/2010	NE	36 11	NA	NA	NA	408 54	398 80 - 383 80 (45 85 - 60 85)	*
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		*
2Q13	444 65	4/2/2013	NE	40 64	NA	NA	NA	404 01		*

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										
3Q10	443 44	7/1/2010	NE	30 42	NA	NA	NA	413 02	406 92 - 391 92 (36 52 - 51 52)	*
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		*
2Q13	443 44	4/2/2013	NE	34 91	NA	NA	NA	408 53		*
P-102										
3Q10	444 91	7/1/2010	NE	33 97	NA	NA	NA	410 94	402 16 - 382 16 (42 75 - 62 75)	*
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		*
2Q13	444 91	4/2/2013	NE	37 95	NA	NA	NA	406 96		*
P-114										
3Q10	432 41	7/1/2010	NE	25 00	NA	NA	NA	407 41	399 73 - 379 73 (32 67 - 52 67)	*
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		*
2Q13	432 41	4/2/2013	NE	31 99	NA	NA	NA	400 42		*
P-115										
3Q10	433 31	7/1/2010	NE	25 59	NA	NA	NA	407 72	401 01 - 381 01 (32 30 - 52 30)	*
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	NM	NM	NA	NA	NA	NA		
	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		
2Q13	433 31	4/2/2013	NE	32 92	NA	NA	NA	400 39		
P-116										
3Q10	436 45	7/1/2010	NE	28 82	NA	NA	NA	407 63	399 01 - 379 01 (37 44 - 57 44)	*
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		*
2Q13	436 45	4/2/2013	NE	36 32	NA	NA	NA	400 13		*
P-117										
3Q10	432 67	7/1/2010	NE	24 91	NA	NA	NA	407 76	399 74 - 379 74 (32 93 - 52 93)	*
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		*
2Q13	432 67	4/2/2013	NE	32 51	NA	NA	NA	400 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-118										
3Q10	431 32	7/1/2010	NE	23 27	NA	NA	NA	408 05	400 20 - 384 27 (31 12 - 47 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		
2Q13	431 32	4/2/2013	NE	31 53	NA	NA	NA	399 79		
P-119										
3Q10	431 92	7/1/2010	NE	24 71	NA	NA	NA	407 21	401 25 - 385 32 (30 67 - 46 60)	*
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		*
2Q13	431 92	4/2/2013	NE	31 10	NA	NA	NA	400 82		
P-120										
3Q10	432 78	7/1/2010	NE	24 53	NA	NA	NA	408 25	401 40 - 385 47 (31 38 - 47 31)	*
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		*
2Q13	432 78	4/2/2013	NE	31 42	NA	NA	NA	401 36		
P-129										
3Q10	432 46	7/1/2010	NE	23 82	NA	NA	NA	408 64	400 49 - 384 56 (31 97 - 47 90)	*
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		
2Q13	432 46	4/2/2013	NE	33 30	NA	NA	NA	399 16		
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		
2Q13	442 41	4/2/2013	NE	42 90	NA	NA	NA	399 51		
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 11 - 394 11 (38 18 - 48 18)	2" Well Installec
2Q13	442 29	4/1/2013	NE	42 26	NA	NA	NA	400 03		

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	404 27 - 394 27 (38 00 - 48 00)	* 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		
4Q11	442 13	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	442 13	4/1/2013	41 38	41 46	400 67	400 75	0 08	400 73		
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		
4Q11	442 11	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	442 11	4/1/2013	NE	41 86	NA	NA	NA	400 25		
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		
4Q11	442 38	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	442 38	4/1/2013	NE	41 55	NA	NA	NA	400 83		
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		
4Q11	442 66	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	442 66	4/1/2013	NE	42 34	NA	NA	NA	400 32		
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		
4Q11	442 98	NA	NM	NM	NA	NA	NA	NA		
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		
4Q12	442 98	10/1/2012	NE	NE	NA	NA	NA	NA		Well Dry
1Q13	442 98	1/2/2013	NE	NE	NA	NA	NA	NA		Well Dry
2Q13	442 98	4/1/2013	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		
4Q11	441 96	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	441 96	4/1/2013	NE	40 80	NA	NA	NA	401 16		
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		
4Q11	442 12	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	442 12	4/1/2013	NE	41 12	NA	NA	NA	401 00		
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		
4Q11	442 13	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	442 13	4/1/2013	NE	42 14	NA	NA	NA	399 99		

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-5-PZ										
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
2Q13	442 22	4/1/2013	NE	NE	NA	NA	NA	NA		Well Dry
ROST-7-PZ										
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		
2Q13	442 19	4/1/2013	NE	25 51	NA	NA	NA	416 68		
ROST-10-PZ										
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
2Q13	444 51	4/1/2013	NE	NE	NA	NA	NA	NA		Well Dry
ROST-21-PZ										
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
2Q13	443 72	4/1/2013	NE	NE	NA	NA	NA	NA		Well Dry
S-1										
3Q10	443 79	7/1/2010	38 27	43 29	400 50	405 52	5 02	404 52	Unknown	
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		
2Q13	443 79	4/1/2013	NE	44 20	NA	NA	NA	399 59		
T-1										
3Q10	444 55	7/1/2010	NM	NM	NA	NA	NA	NA	396 92 - 373 00 (47 63 - 71 55)	
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	NM	NM	NA	NA	NA	NA	398 40 - 388 40 (43 91 - 53 91)	
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		*
2Q13	445 40	4/2/2013	NE	44 94	NA	NA	NA	400 46		*

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-2										
3Q10	443 13	7/1/2010	NE	39 16	NA	NA	NA	403 97	392 63 - 372 48 (50 50 - 70 65)	*
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		*
2Q13	443 13	4/2/2013	NE	43 35	NA	NA	NA	399 78		*
T-3										
3Q10	450 91	7/1/2010	NE	48 07	NA	NA	NA	402 84	403 65 - 388 65 (47 26 - 62 26)	
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		
2Q13	450 91	4/1/2013	NE	52 35	NA	NA	NA	398 56		
T-4										
3Q10	447 95	7/1/2010	NE	45 22	NA	NA	NA	402 73	398 24 - 383 24 (49 71 - 64 71)	*
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		*
2Q13	447 95	4/1/2013	NE	49 26	NA	NA	NA	398 69		*
T-5										
3Q10	443 46	7/1/2010	NM	NM	NA	NA	NA	NA	395 13 - 378 58 (48 33 - 64 88)	
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		*
2Q13	443 46	4/1/2013	NE	43 42	NA	NA	NA	400 04		*
T-6										
3Q10	446 55	7/1/2010	NE	41 74	NA	NA	NA	404 81	394 79 - 380 54 (51 76 - 66 01)	*
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		*
2Q13	446 55	4/2/2013	NE	46 69	NA	NA	NA	399 86		*
T-7										
3Q10	444 01	7/1/2010	37 21	37 37	406 64	406 80	0 16	406 77	395 29 - 380 29 (48 72 - 63 72)	*
4Q10	444 01	10/1/2010	36 24	36 40	407 61	407 77	0 16	407 74		*
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	NE	38 45	NA	NA	NA	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		*
2Q13	444 01	4/2/2013	NE	42 78	NA	NA	NA	401 23		*

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-12										
3Q10	444 69	7/1/2010	NE	41 21	NA	NA	NA	403 48	398 23 - 372 23 (46 46 - 72 46)	*
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		*
2Q13	444 69	4/2/2013	NE	45 19	NA	NA	NA	399 50		*
T-13										
3Q10	443 46	7/1/2010	NE	38 72	NA	NA	NA	404 74	396 46 - 370 46 (47 00 - 73 00)	*
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	NM	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		*
2Q13	443 46	4/3/2013	NE	42 96	NA	NA	NA	400 50		*
T-15										
3Q10	445 03	7/1/2010	NE	41 07	NA	NA	NA	403 96	396 99 - 370 99 (48 04 - 74 04)	*
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		*
2Q13	445 03	4/2/2013	NE	45 11	NA	NA	NA	399 92		*
T-17										
3Q10	445 90	7/1/2010	NE	39 60	NA	NA	NA	406 30	401 80 - 375 80 (44 10 - 70 10)	*
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		*
2Q13	445 90	4/2/2013	NE	43 61	NA	NA	NA	402 29		*
T-19										
3Q10	446 71	7/1/2010	43 47	44 91	401 80	403 24	1 44	402 95	395 94 - 369 94 (50 77 - 76 77)	*
4Q10	446 71	10/1/2010	41 39	42 73	403 98	405 32	1 34	405 05		*
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		*
2Q13	446 71	4/1/2013	NE	48 09	NA	NA	NA	398 62		*
T-21										
3Q10	444 00	7/1/2010	NE	30 79	NA	NA	NA	413 21	412 04 - 386 04 (31 96 - 57 96)	*
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		
2Q13	444 00	4/2/2013	NE	34 98	NA	NA	NA	409 02		

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-22										
3Q10	442 21	7/1/2010	NE	31 11	NA	NA	NA	411 10	410 66 - 384 96 (31 55 - 57 25)	*
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		
2Q13	442 21	4/2/2013	NE	36 44	NA	NA	NA	405 77		
T-23										
3Q10	432 64	7/1/2010	NE	23 35	NA	NA	NA	409 29	405 41 - 379 41 (27 23 - 53 23)	*
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		
2Q13	432 64	4/2/2013	NE	29 04	NA	NA	NA	403 60		
T-24										
3Q10	443 72	7/1/2010	40 36	40 68	403 04	403 36	0 32	403 29	402 22 - 376 57 (41 50 - 67 15)	*
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	1/4/2013	NE	43 20	NA	NA	NA	400 52		
2Q13	443 72	4/2/2013	44 58	44 64	399 08	399 14	0 06	399 13		
T-28										
3Q10	444 22	7/1/2010	NM	NM	NA	NA	NA	NA	Unknown	
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		
2Q13	444 22	4/2/2013	NE	43 42	NA	NA	NA	400 80		
T-38										
3Q10	445 62	7/1/2010	NE	37 00	NA	NA	NA	408 62	396 48 - 376 48 (49 14 - 69 14)	*
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		*
2Q11	445 62	NA	NM	NM	NA	NA	NA	NA		
3Q11	445 62	7/5/2011	NM	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		*
2Q13	445 62	4/1/2013	NM	NM	NA	NA	NA	NA		
T-62										
3Q10	431 73	7/1/2010	NE	23 99	NA	NA	NA	407 74	412 02 - 382 02 (19 71 - 49 71)	
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		
2Q13	431 73	4/2/2013	NE	30 80	NA	NA	NA	400 93		

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-63										
3Q10	431 24	7/1/2010	NE	23 23	NA	NA	NA	408 01	411 26 - 381 26 (19 98 - 49 98)	
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		
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		
2Q13	431 24	4/2/2013	NE	30 61	NA	NA	NA	400 63		
T-64										
3Q10	428 80	7/1/2010	NE	20 46	NA	NA	NA	408 34	408 99 - 378 99 (19 81 - 49 81)	
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		
2Q11	428 80	NA	NM	NM	NA	NA	NA	NA		
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		
2Q13	428 80	4/2/2013	NE	28 63	NA	NA	NA	400 17		
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		*
2Q13	445 52	4/1/2013	NE	45 04	NA	NA	NA	400 48		*
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		*
2Q13	445 50	4/1/2013	NE	45 12	NA	NA	NA	400 38		*
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		*
2Q13	443 15	4/1/2013	NE	43 03	NA	NA	NA	400 12		*
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		*
2Q13	443 12	4/1/2013	NE	42 95	NA	NA	NA	400 17		*

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 MAIN AQUIFER 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 18	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 9966	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 Resample for VOCs
1Q13	6 73	18 14	2 192	8 16	0 20	-0 02	
2Q13	6 70	18 71	1 096	7 39	0 01	-117 0	
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	
2Q13	6 64	20 21	1 204	7 15	0 01	-159 0	
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	
2Q13	6 92	19 83	1 078	2 64	0 02	-207 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 26	18 37	1 296	6 07	0 04	-108 0	Confirmation Sample
2Q13	6 81	19 74	1 283	8 50	0 00	-151 0	
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	
2Q13	6 79	19 64	1 010	8 72	0 00	-166 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	
2Q13	6 84	18 96	0 848	7 09	0 00	-255 0	

TABLE 2a
CUMMULATIVE SUMMARY OF MAIN AQUIFER 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	
2Q13	6 80	18 21	1 557	1 11	0 04	-132 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	
2Q13	7 70	18 38	1 051	4 91	0 05	-178 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	
2Q13	8 27	18 20	1 131	7 93	0 00	-172 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	
2Q13	6 86	19 35	1 123	3 37	0 07	-148 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	
2Q13	6 50	19 71	0 890	7 19	0 05	-124 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	
2Q13	6 69	18 01	1 126	9 51	0 00	-125 0	

TABLE 2a
CUMMULATIVE SUMMARY OF MAIN AQUIFER 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 Resample 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	Resample
2Q13	6 78	18 85	1 210	8 71	0 02	-260 0	
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	
2Q13	6 75	18 16	1 313	5 58	0 01	-310 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	
2Q13	6 86	19 24	0 958	1 01	0 09	-285 0	
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	
2Q13	6 60	19 69	1 260	2 35	0 00	-152 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 0	
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	
2Q13	6 48	19 09	1 138	5 68	0 03	-129 0	
MW-16							
1Q13	*	19 17	0 851	7 03	0 00	-98 0	Added to Interim GW Monitoring Program in 1Q13
2Q13	6 57	19 56	0 826	0 96	0 03	-288 0	
MW-18							
2Q13	6 64	19 57	1 319	31 93	0 03	-274 0	
MW-21							
2Q13	6 66	20 56	1 031	3 00	0 04	-278 0	
MW-22							
1Q13	*	17 69	1 096	9 20	0 00	-111 0	Added to Interim GW Monitoring Program in 1Q13
2Q13	6 76	19 91	1 150	1 64	0 07	-282 0	
MW-24							
2Q13	6 73	18 63	1 203	3 04	0 24	-219 0	Added to Interim GW Monitoring Program in 2Q13

TABLE 2a
CUMMULATIVE SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
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	
2Q13	6 70	18 08	1 105	2 88	0 11	-96 0	Initial Sample
	6 73	17 51	1 035	4 36	0 63	165 0	Resample
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	
4Q12	NM	NM	NM	NM	NM	NM	
1Q13	*	17 37	0 635	7 68	0 00	-125 0	Well Replaced during 4Q12
2Q13	6 86	21 33	0 799	0 06	0 02	-174 0	
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	
2Q13	6 61	22 69	1 218	3 00	0 00	-122 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	
2Q13	6 53	20 78	1 331	6 97	0 00	-146 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 Resample for SVOCs and PAHs
1Q13	6 57	16 48	0 964	23 26	0 00	-67 0	
2Q13	6 50	18 92	1 174	23 19	0 03	-109 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	
2Q13	6 54	18 74	1 109	3 91	0 00	-119 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	
2Q13	6 40	19 20	1 198	13 65	0 00	-133 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 0	
2Q12	6 84	19 17	0 367	8 55	0 37	28 0	
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 0	
1Q13	*	16 88	0 445	24 29	0 00	-39 0	
2Q13	6 99	16 19	0 175	14 65	1 42	-93 0	

TABLE 2a
CUMMULATIVE SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
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	
2Q13	6 85	19 70	1 433	33 41	5 83	-86 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	
2Q13	6 84	17 21	1 666	3 54	0 97	-99 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	
2Q13	6 91	17 09	0 961	0 00	0 89	-74 0	
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	1 222	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	7 76	17 20	1 623	2 10	NM	NM	
1Q13	7 07	16 25	1 187	4 91	0 00	-77 0	
2Q13	7 08	18 02	1 211	3 37	0 17	-111 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	
2Q13	7 33	20 80	0 941	31 68	1 83	-144 0	
ROST-3-MW							
1Q13	*	16 92	0 723	6 82	-0 08	-124 0	
2Q13	6 94	18 60	0 751	11 04	0 01	-319 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(A)							
2Q13	NM	NM	NM	NM	NM	NM	Well purged nearly dry Sampled for VOCs once well recharged; insufficient water for parameters
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	
2Q13	6 75	19 22	1 334	1 67	0 01	-148 0	
ROST-4-PZ(F)							
2Q13	9 65	21 46	0 796	7 39	0 57	-76 00	
ROST-4-PZ(G)							
2Q13	10 22	18 83	1 045	0 38	0 00	-117 00	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2a
CUMMULATIVE SUMMARY OF MAIN AQUIFER GROUNDWATER MONITORING WELL FIELD PARAMETERS

Well ID	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
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	
2Q13	6 81	18 64	1 177	10 67	0 00	-122 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 parameter 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
2Q13	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.
2Q13	NM	NM	NM	NM	NM	NM	Slow recharge prevented sampling per the SOP
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.
2Q13	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
2Q13	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.
2Q13	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.
2Q13	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

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	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)	Isopropylbenzene (Cumene)	4 Methyl 2 pentanone (Methyl Isobutyl Ketone)	Methyl tert Butyl Ether (MTBE)	Naphthalene	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)
					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]			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]
						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			<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	
	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			<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	
	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			<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	
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	MW1-ROX-102612	10/26/2012		41.22	NE																																			
	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	<0.005	<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
	MW1-ROX-011013	1/10/2013		42.59	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	<0.005	<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
	MW1-ROX-040913	4/9/2013	49.98 - 59.98	42.55	NE	0.0004 J	<0.01	<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	<0.005	<0.005	0.0012	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
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			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	
	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			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	
	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	0.0539	<0.005	<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
	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	0.0995	<0.05	<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
	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	0.0967	<0.05	<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
	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	0.128	<0.005	<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
	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	0.0832	<0.025	<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
	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	0.0886	<0.025	<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
	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	0.0818	<0.005	<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
	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	0.0764	<0.025	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
	MW2-ROX-011113	1/11/2013		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	0.0879	<0.01	<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
	MW2-ROX-040913	4/9/2013	51.32 - 61.32	43.70	NE	0.0174	<0.025	0.0191 J	0.0085 J	<0.025	<0.025	<0.005	<0.005	<0.01	<0.005	<0.01	<0.025	0.0101 J	<0.13	0.91	<0.025	<0.025		<0.025	0.085	<0.025	<0.005	0.0578	0.11	0.0073	<0.025	<0.025	<0.005		0.338	0.155	<0.025	1.01	0.0454	1.05
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			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	
	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			<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	
	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	<0.005	<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
	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	0.0012 J	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	MW3-ROX-010913	1/9/2013		29.88	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	<0.005	<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
	MW3-ROX-040813	4/8/2013	34.67 - 44.67	29.74	NE	0.008	<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	<0.005	<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
MW-04	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			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	
	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			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	
	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	0.0036 J	<0.005	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
	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	0.0088	<0.005	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
	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	0.0088	<0.005	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
	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	<0.005	<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
	MW4-ROX-011612	1/16/2012	46.06 - 56.06	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	0.0061	<0.005	<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
	MW4-ROX-050312	5/3/2012		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	0.0038 J	<0.005	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
	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	0.0036 J	<0.005	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
	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	0.0061	<0.005	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
	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	0.0063	<0.005	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
	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	0.0029 J	<0.01	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
	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	0.0012 J	<0.005	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
	MW4-ROX-011113-DUP	1/11/2013		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	0.0014 J	<0.005	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
	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	<0.5	<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
	MW4-ROX-040913	4/9/2013	46.06 - 56.06	40.90	NE	64.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004	<0.01	<0.01	<0.05	<0.002	<0.01	<0.01		<0.01	<0.01	<0.01	0.112	<0.01	<0.01	0.0057	<0.01	<0.01	<0.002		<0.01	<0.01	<0.01	0.0052	<0.002	0.0062
	MW4-ROX-040913-DUP	4/9/2013		40.90	NE	72.9	<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	0.00081 J	<0.005	<0.005		<0.005	<0.005	<0.005	0.125	<0.005	0.004 J	0.0076	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0073	0.0011	0.0084
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			<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	
	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			<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	
	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	<0.005	<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
	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	0.0161	<0.005	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
	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	0.016	<0.005	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
	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	<0.005	<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
	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	<0.005	<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
	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	0.001 J	<0.005	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
	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	0.0066	<0.005	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
	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	0.002 J	<0.005	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
	MW5-ROX-011113	1/11/2013		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	0.00086 J	<0.005	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
	MW5-ROX-040913	4/9/2013	33.97 - 43.97	29.41	NE	0.0018	<0.01	<0.005	0.0018 J	0.0063	<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	0.00085 J	<0.005	0.0427	<0.005	<0.005	0.002	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.001	<0.001	0.0014
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			<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	
	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			<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	
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	MW6A-ROX-011413	1/14/2013		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	<0.005	<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
	MW6A-ROX-040313	4/3/2013	34.83 - 44.83	31.62	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	<0.005	<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

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

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	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
					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]
						VOCs – ANALYTICAL RESULTS (mg/L)																
MW-06B	MW-6B-111610	11/16/2010		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
	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
	MW6B-ROX-072311	7/23/2011	64.05 - 69.05	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
	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
	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
	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
	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
	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
	MW6B-ROX-011713	1/17/2013		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
	MW6B-ROX-040313	4/3/2013	64.05 - 69.05	31.68	NE	0.00043 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
MW-06C	MW-6C-111610	11/16/2010		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
	MW6C-ROX-072411	7/24/2011	84.95 - 89.95	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
	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
	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
	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
	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
	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
	MW6C-ROX-011713	1/17/2013		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
	MW6C-ROX-040313	4/3/2013	84.95 - 89.95	31.41	NE	0.00062	<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
MW-06D	MW-6D-111610	11/16/2010		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
	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
	MW6D-ROX-110311	11/3/2011	104.72 - 109.72	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
	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
	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
	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
	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
	MW6D-ROX-011713	1/17/2013		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
	MW6D-ROX-040313	4/3/2013	104.72 - 109.72	31.27	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
MW-07	MW-7-111710	11/17/2010		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
	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
	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
	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
	MW-7-ROX-110211	11/2/2011	42.92 - 52.92	35.95	NE	774	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2 UJ	<5	<5	<25	<1	<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
	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
	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
	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
	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
	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
	MW7-ROX-011513	1/15/2013		42.21	NE	1230	<20	<20	<20	<20	<20	<4	<4	<8	<4	<8	<20	<20	<100	<4	<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
	MW7-ROX-041013	4/10/2013	42.92 - 52.92	42.70	NE	475	<20	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<50	<2	<10	<10
	MW7-ROX-041013-DUP	4/10/2013		42.70	NE	499	<20	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<50	<2	<10	<10
MW-08	MW-8-111710	11/17/2010		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
	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
	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
	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
	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
	MW8-ROX-072411-DUP	7/24/2011	33.60 - 43.60	26.02	NE	1860	<25	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<130	<5	<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
	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
	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
	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
	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
	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
	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
	MW8-ROX-011513	1/15/2013		33.30	NE	1120 J	<10	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<50	<2	<10	<10
	MW8-ROX-041013	4/10/2013	33.60 - 43.60	33.77	NE	969	<50	<25	<25	<25	<25	<5	<5	<10	<5	<10	<25	<25	<130	<5	<25	<25

Sample ID	Hexane	2 Hexanone (Methyl N Butyl Ketone)	Isopropylbenzene (Cumene)	4 Methyl 2 pentanone (Methyl Isobutyl Ketone)	Methyl tert Butyl Ether (MTBE)	Naphthalene	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)
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]
ANALYTICAL RESULTS (mg/L)																		
MW-6B-111610			<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	
MW6B-ROX-011911			<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	
MW6B-ROX-011911-DUP			<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	
MW6B-ROX-051611		<0.005 UJ	<0.005	<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
MW6B-ROX-051611-DUP		<0.005 UJ	<0.005	<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
MW6B-ROX-072311		<0.005	<0.005	<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
MW6B-ROX-110311		<0.05	<0.05	<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
MW6B-ROX-011712		<0.005	<0.005	<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
MW6B-ROX-050212		<0.005	<0.005	<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
MW6B-ROX-080112		<0.005	<0.005	<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
MW6B-ROX-102412		<0.005	<0.005	<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
MW6B-ROX-011713		<0.005	<0.005	<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
MW6B-ROX-040313		<0.005	<0.005	<0.005	0.0132	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
MW-6C-111610			<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	
MW6C-ROX-012111			<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	
MW6C-ROX-051611		<0.005 UJ	<0.005	<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
MW6C-ROX-072411		<0.005	<0.005	<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
MW6C-ROX-110311		<0.005	<0.005	<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
MW6C-ROX-011712		<0.005	<0.005	<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
MW6C-ROX-050212		<0.005	<0.005	<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
MW6C-ROX-080112		<0.005	<0.005	<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
MW6C-ROX-102412		<0.005	<0.005	<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
MW6C-ROX-011713		<0.005 UJ	<0.005 UJ	<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
MW6C-ROX-040313		<0.005	<0.005	<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
MW-6D-111610			<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	
MW6D-ROX-012111			<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	
MW6D-ROX-051611		<0.005 UJ	<0.005	<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
MW6D-ROX-072311		<0.005	<0.005	<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
MW6D-ROX-110311		<0.005	<0.005	<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
MW6D-ROX-011712		<0.005	<0.005	<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
MW6D-ROX-050212		<0.005	<0.005	<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
MW6D-ROX-080212		<0.005	<0.005	<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
MW6D-ROX-102412		<0.005	<0.005	<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
MW6D-ROX-011713		<0.005 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	<0.001 UJ		<0.005 UJ	<0.005 UJ	<0.005 UJ	<0.001 UJ	<0.001 UJ	<0.001 UJ
MW6D-ROX-040313		<0.005	<0.005	<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
MW-7-111710			<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	
MW-7-111710-Dup			<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	
MW7-ROX-012511		<0.005 UJ	0.004 J J	<0.005 UJ	<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	
MW07-ROX-051311		<0.005 UJ	0.0061 J	<0.005 UJ	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
MW07-ROX-051311D		<0.005	0.006	<0.005	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
MW7-ROX-072411		<25	<25	<25	<5	0.0081	<25	<5	<25	<25	<5		<25	<25	<25 UJ	<5	<5	<5
MW-7-ROX-110211		<5	<5	<5	<1	0.0113	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1
MW7-ROX-011812		<0.005	0.0101	<0.005	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
MW7-ROX-011812-DUP		<0.005	0.01	<0.005	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
MW7-ROX-050412		<0.5	<0.5	<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
MW7-ROX-080712		<0.05	<0.05	<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
MW7-ROX-103012		<10	<10	<10	<2	<10	<10	<2	<10	<10	<2		<10	<10	<10	<2	<2	<2
MW7-ROX-103012-DUP		<10	<10	<10	<2	<10	<10	<2	<10	<10	<2		<10	<10	<10	<2	<2	<2
MW7-ROX-011513		<20	<20	<20	<4	<20	<20	<4	<20	<20	<4		<20	<20	<20	<4	<4	<4
MW7-ROX-011513-DUP		<20	<20	<20	<4	<20	<20	<4	<20	<20	<4		<20	<20	<20	<4	<4	<4
MW7-ROX-041013		<10	<10	<10	<2	<10	<10	<2	<10	<10	<2		<10	<10	<10	<2	<2	<2
MW7-ROX-041013-DUP		<10	<10	<10	<2	<10	<10	<2	<10	<10	<2		<10	<10	<10	<2	<2	<2
MW-8-111710			<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	
MW8-ROX-012511		<0.005 UJ	0.0104 J	<0.005 UJ	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	
MW8-ROX-012511-DUP		<0.005 UJ	0.0105 J	<0.005 UJ	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	
MW08-ROX-051311		<50	<50	<50	<10	0.0241 J	<50	<10	<50	<50	<10		<50	<50	<50	<10	<10	<10
MW08-ROX-051311D		<5	<5	<5	0.657 J	0.0288 J	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1
MW8-ROX-072411		<25	<25	<25	<5	0.0237	<25	<5	<25	<25	<5		<25	<25	<25 UJ	<5	<5	<5
MW8-ROX-072411-DUP		<25	<25	<25	<5	0.023	<25	<5	<25	<25	<5		<25	<25	<25 UJ	<5	<5	<5
MW-8-ROX-110211		<5	<5	<5	4.94 J	0.0282	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1
MW8-ROX-011812		<0.005	0.0162	<0.005	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
MW8-ROX-050412		<0.5	<0.5	<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
MW8-ROX-050412-DUP		<0.5	<0.5	<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
MW8-ROX-080712		<0.1	<0.1	<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
MW8-ROX-080712-DUP		<0.05	<0.05	<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
MW8-ROX-103012		<5	<5	<5	<1	<5	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1
MW8-ROX-011513		<10	<10	<10	<2	<10	<10	2.09	<10	<10	<2		<10	<10	<10	<2	<2	<2
MW8-ROX-041013		<25	<25	<25	<5	<25	<25	<5	<25	<25	<5		<25	<25	<25	<5	<5	<5

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)	Isopropylbenzene (Cumene)	4 Methyl 2 pentanone (Methyl Isobutyl Ketone)	Methyl tert Butyl Ether (MTBE)	Naphthalene	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)
					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]			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]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																																		
	MW-9-111510	11/15/2010		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			<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	
	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			<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	
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
MW-09	MW9-ROX-011612	1/16/2012	46.45 - 56.45	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	<0.005	<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
	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	<0.005	<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	0.00058	<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	<0.005	<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
	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	<0.005	<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
	MW9-ROX-011113	1/11/2013		44.70	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	<0.005	<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
	MW9-ROX-040913	4/9/2013	46.45 - 56.45	44.67	NE	<0.0005	<0.01	<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	<0.005	<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
	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			<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	
	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	<0.005	<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	
	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	<0.005	<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	
	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	<0.005	<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
	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	<0.005	<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
	MW10-ROX-110111	11/1/2011		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	<0.005	<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
MW-10	MW10-ROX-011612	1/16/2012	44.43 - 54.43	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	MW10-ROX-102612	10/26/2012		43.08	NE																																			
	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	<0.005	<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
	MW10-ROX-011013	1/10/2013		44.61	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	<0.005	<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
	MW10-ROX-012113	1/21/2013		44.61	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		<0.005	<0.005	<0.005	<0.02	<0.025	<0.005	<0.025	<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	
	MW10-ROX-040913	4/9/2013	44.43 - 54.43	44.60	NE	0.00067	<0.01	<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	<0.005	<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
	MW-11-111710	11/17/2010		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			<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	
	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	<0.005	<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	
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
MW-11	MW11-ROX-011712	1/17/2012	41.66 - 51.66	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	<0.005	<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	0.00087	<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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	MW11-ROX-011013	1/10/2013		42.15	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	<0.025	<0.001	<0.005	<0.005		<0.005	<0.005	<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
	MW11-ROX-040813	4/8/2013	41.66 - 51.66	42.02	NE	0.00065 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	<0.001	<0.005	<0.005		<0.005	<0.005	<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
	MW-12-111510	11/15/2010		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			<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	
	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	<0.005	<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	
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
MW-12	MW-12-ROX-110211-DUP	11/2/2011	41.92 - 51.92	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	MW12-ROX-011013	1/10/2013		42.46	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	<0.005	<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
	MW12-ROX-040813	4/8/2013	41.92 - 51.92	42.46	NE	0.00088 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	<0.001	<0.005	<0.005		<0.005	<0.005	<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
	MW13-ROX-012511	1/25/2011		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	<0.005	<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	
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
MW-13	MW13-ROX-012012	1/20/2012	25.57 - 35.57	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	<0.005	<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
	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	<0.005	<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
	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	<0.005 UJ	<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
	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	<0.005	<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
	MW13-ROX-012313	1/23/2013		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	<0.005	<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
	MW13-ROX-041213	4/12/2013	25.57 - 35.57	29.44	NE	0.0102 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	<0.005	<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
	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	<0.005	<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
	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	0.0104	<0.005	<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
MW-14	MW14-ROX-080312	8/3/2012		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	0.0173	<0.005	<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
	MW14-ROX-103112	10/31/2012	33.42 - 43.42	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	0.0161	<0.005	<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
	MW14-ROX-011813	1/18/2013		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	0.021	<0.005	<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
	MW14-ROX-041113	4/11/2013	33.42 - 43.42	33.31	NE	0.0125 J	<0.01	0.0021 J	0.0048 J	0.0016 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	0.0346	<0.005	<0.001	<0.005	0.0206	0.0014	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	0.0038	<0.001	0.0043
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	<0.005	<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
	MW16-ROX-040813	4/8/2013	37.43 - 47.43	43.39	NE	0.00058 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	<0.001	<0.005	<0.005		<0.005	<0.005	<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
MW-18 [6]	MW18-ROX-040513	4/5/2013	35.25 - 50.25	42.38	NE	0.183 J	<0.005	0.0327 J	0.0121 J	0.008 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0106 J	<0.025	2.38	<0.005	<0.005		0.19 J	0.0971 J	0.126 J	<0.001	0.289 J	0.204 J	0.14 J	<0.005	<0.005	<0.001		0.929	0.268 J	<0.005	5.29	0.46	5.75
MW-21 [6]	MW21-ROX-040513	4/5/2013	35.30 - 50.30	43.79	NE	368	<0.005	0.0309	0.0246	0.0143	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0186	<0.025	0.519 J	<0.005	<0.005		<0.005	0.0834	<0.005	<0.001	0.175 J	0.124	0.015	<0.005	<0.005	<0.001		0.302	0.0939	<0.005	0.204	0.0034	0.207
	MW21-ROX-040513-DUP	4/5/2013		43.79	NE	364	<0.005	0.0298	0.0239	0.0142	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0182	<0.025	0.399	<0.005	<0.005		<0.005	0.0812	<0.005	<0.001	0.132 J	0.118	0.0144	<0.005	<0.005	<0.001		0.287	0.0903	<0.005	0.196	0.0029	0.199
	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	0.126 J	<0.25	<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
MW-22	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	0.124 J	<0.25	<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
	MW22-ROX-040513	4/5/2013	38.21 - 48.21	42.23	NE	1.5	<0.005	0.0413 J	0.0142 J	0.0171 J	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	0.0122 J	<0.025	2.44	<0.005	<0.005		<0.005	0.159 J	0.0124 J	<0.001	0.286 J	0.29 J	6.14	<0.005	<0.005	<0.001		0.931	0.379 J	<0.005	5.15	2.64	7.79
MW-24	MW24-ROX-040513	4/5/2013	38.89 - 48.89	43.39	NE	0.0029	<0.01	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0012	<0.005	<0.005		<0.005	<0.005	<0.005	<0.001	<0.005	<0.005	0.0014	<0.005	<0.005	<0.001		0.00051 J	<0.005	<0.005	0.0021	0.0009 J	0.003

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

VOCs — ANALYTICAL RESULTS (mg/L)

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	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)	Isopropylbenzene (Cumene)	4 Methyl 2 pentanone (Methyl Isobutyl Ketone)	Methyl tert Butyl Ether (MTBE)	Naphthalene	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)
					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]			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]
	P-54-111710	11/17/2010		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			<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	
	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	<0.005	<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	
	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	<0.005	<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
	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	<0.005	<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
P-54	P54-ROX-110311	11/3/2011	38.00 - 63.00	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	P54-ROX-011113	1/11/2013		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	<0.005	<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
	P54-ROX-050313	5/3/2013	38.00 - 63.00	41.80	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	<0.005	<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
	P55-ROX-103111	10/31/2011		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	<0.005	<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
	P55-ROX-011912	1/19/2012	39.82 - 64.82	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	0.0105 J	<0.005	<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
	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	0.0105 J	<0.005	<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
P-55	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	0.0392	<0.005	<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
	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		0.316	<0.05	<0.01	0.276	<0.25	0.0678	<0.25	<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	
	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	0.0937	<0.005	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
	P55-ROX-041513	4/15/2013	40.85 - 50.85	43.63	NE	0.434	<0.01	0.0052 J	0.0196	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004	<0.01	<0.01	<0.05	0.35	<0.01	<0.01		<0.01	0.068	<0.01	<0.002	0.0974 J	0.148	0.143	<0.01	<0.01	<0.002		0.0241	0.0229	<0.01	0.235	0.362	0.597
	P56-ROX-102711	10/27/2011		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	0.0512	<0.005	<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
	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	0.0787 J	<0.005	<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
	P56-ROX-050812	5/8/2012	40.82 - 65.82	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	0.0876	<0.005	<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
P-56	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	0.0442	<0.025	<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
	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	0.0752	<0.005	<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
	P56-ROX-011713	1/17/2013		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	0.0398	<0.025	<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
	P56-ROX-041213	4/12/2013	40.82 - 65.82	46.12	NE	0.131	<0.01	<0.01	0.0142	<0.01	<0.01	<0.002	<0.002	<0.004	<0.002	<0.004	<0.01	<0.01	<0.05	0.691	<0.01	<0.01		<0.01	0.0581	<0.01	<0.002	0.0964 J	0.0805	0.0799	<0.01	<0.01	<0.002		0.27	0.0486	<0.01	1	0.0243	1.03
	P57-ROX-110811	11/8/2011		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	<0.5	<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
	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	<2.5	<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
	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	<0.5	<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
P-57	P57-ROX-080612	8/6/2012	40.46 - 65.46	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	<0.25	<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
	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	0.0432	<0.005	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
	P57-ROX-110512	11/5/2012		44.98	NE	142	<2.5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13	1.09	<2.5	<2.5		<2.5	<2.5	<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
	P57-ROX-012913	1/29/2013		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	<2.5	<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
	P57-ROX-041113	4/11/2013	40.46 - 65.46	46.29	NE	141	<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13	1.19	<2.5	<2.5		<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5		0.494 J	<2.5	<2.5	<0.5	<0.5	<0.5
	P58-ROX-102811	10/28/2011		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	0.0734	<0.005	<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
	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	0.108 J	<0.005	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
	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	0.0832 J	<0.005	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
	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	<0.5	<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
	P58-ROX-050712-DUP	5/7/2012	40.21 - 65.21	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	<0.5	<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
P-58	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	0.0649 J	<0.1	<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
	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	0.0718	<0.05	<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
	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	<0.5	<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
	P58-ROX-121012	12/10/2012		43.09	NE																																			
	P58-ROX-012213	1/22/2013		44.21	NE	552	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<25	1.27	<5	<5		<5	<5	<5	<1	<5	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	0.728 J
	P58-ROX-041113	4/11/2013	40.21 - 65.21	44.40	NE	532	<20	<10	<10	<10	<10	<2	<2	<4	<2	<4	<10	<10	<50	1.28 J	<10	<10		<10	<10	<10	<2	<10	<10	<2	<10	<10	<2		0.926 J	<10	<10	<2	<2	<2
	P59-ROX-102711	10/27/2011		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	<0.25	<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
	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	0.0713	<0.005	<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
	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	0.0733	<0.005	<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
	P59-ROX-050912	5/9/2012	47.91 - 72.91	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	0.0585 J	<0.25	<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
P-59	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	0.0452 J	<0.1	<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
	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	<0.5	<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
	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	<0.5	<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
	P59-ROX-013013	1/30/2013		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	0.0455 J	<0.25 UJ	<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
	P59-ROX-041213	4/12/2013	47.91 - 72.91	46.95	NE	15	<0.25	<0.25	0.289	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<1.3	2.85	<0.25	<0.25		<0.25	0.062 J	<0.25	<0.05	0.664	0.136 J	0.523	<0.25	<0.25	<0.05		0.946	<0.25	<0.25	6.52	0.646	7.16
	P59-ROX-041213-DUP	4/12/2013		46.95	NE	13.4	<0.25	<0.25	0.288	<0.25	<0.25	<0.05	<0.05	<0.1	<0.05	<0.1	<0.25	<0.25	<1.3	2.57	<0.25	<0.25		<0.25	0.0543 J	<0.25	<0.05	0.547	0.117 J	0.463	<0.25	<0.25	<0.05		0.843	<0.25	<0.25	5.89	0.591	6.48
	P66-ROX-110111	11/1/2011		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	0.158	<0.005	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
	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	0.123	<0.005	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
	P66-ROX-080312	8/3/2012	34.72 - 59.72	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	0.0874	<0.005	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
P-66	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	0.122	<0.005	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
	P66-ROX-011813	1/18/2013		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	0.146	<0.005	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
	P66-ROX-041113	4/11/2013	34.72 - 59.72	36.03	NE	0.0444	<0.01	0.0199	0.0249	0.0104	<0.005	<0.001	<0.001	0.00065 J	<0.001	<0.002	<0.005	0.0093	<0.025	0.0036	<0.005	<0.005		<0.005	0.287	<0.005	0.086	<0.005	0.384	0.0012	<0.005	<0.005	<0.001		0.0041 J	<0.005	<0.005	<0.001	<0.001	<0.001
	P74-ROX-103111	10/31/2011		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	0.0123	<0.005	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
	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	<0.005	<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
	P74-ROX-050712	5/7/2012	44.43 - 69.43	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	<0.005	<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
P-74	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	<0.05	<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
	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	<0.1	<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
	P74-ROX-011713	1/17/2013		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	<0.1	<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
	P74-ROX-041113	4/11/2013	44.43 - 69.43	42.83	NE	0.144	<0.01	0.0026 J	<0.005	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0086	<0.005	<0.005		<0.005	<0.005	<0.005	<0.001	0.0016 J	<0.005	0.003	<0.005	<0.005	<0.001		0.0184	0.0138	<0.005	0.0456	0.0146	0.0601
	P93A-102610	10/26/2010		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			<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	
	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			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	
	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	0.0206 J	<0.005	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
	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	0.0236 J	<0.005	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
	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	0.0189	<0.005	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
	P93A-ROX-012012	1/20/2012	48.17 - 63.17	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	0.0134	<0.005	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
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	0.0218 J	<0.005 UJ	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
	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	0.0126	<0.005	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
	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	<0.5	<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
	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	<0.5	<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
	P93A-ROX-012313	1/23/2013		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	<2.5	<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
	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	<2.5	<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
	P93A-ROX-041113	4/11/2013	48.17 - 63.17	46.29	NE	120	<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13	0.255 J	<2.5	<2.5		<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
	P93A-ROX-041113-DUP	4/11/2013		46.29	NE	120	<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13	<0.5	<2.5	<2.5		<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5	<2.5	<2.5	<0.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5

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)	Isopropylbenzene (Cumene)	4 Methyl 2 pentanone (Methyl Isobutyl Ketone)	Methyl tert Butyl Ether (MTBE)	Naphthalene	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)
					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]			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]
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	ANALYTICAL RESULTS (mg/L)																															
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			0.5		0.5	0.009	0.5	0.5	0.5	0.5	0.5		0.5	0.5	5	1	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			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	
	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	0.0142	<0.005	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
	P93B-ROX-081811	8/18/2011		38.91	NE	304	<5	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<25	<1	<5	<5		<5	<5	<5	<1	0.0037	<5	<1	<5	<5	<1		<5	<5	<5	<1	<1	<1
	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	0.0292	<0.005	<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
	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	0.022 J	<0.005	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
	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	0.0188 J	<0.005	<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
	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	0.0266	<0.005	<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
	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	<0.5	<0.5	<0.1	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	0.0986 J	<0.1	0.0986 J
	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	<0.5	<0.5	<0.1	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5		<0.5	<0.5	<0.5	0.237	<0.1	0.237
	P93B-ROX-012313	1/23/2013		45.89	NE	415	<5	<5	<5	<5	<5	<1	<1	<2	<1	<2	<5	<5	<25 UJ	<1	<5	<5		<5	<5	<5	<1	<5	<5	<1	<5	<5	<5 UJ		<5	<5	<5 UJ	<1	<1	<1
	P93B-ROX-041113	4/11/2013		46.32	NE	618	<5	<2.5	<2.5	<2.5	<2.5	<0.5	<0.5	<1	<0.5	<1	<2.5	<2.5	<13	<0.5	<2.5	<2.5		<2.5	<2.5	<2.5	<2.5	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5		<2.5	<2.5	<2.5	<0.5	<0.5	<0.5
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			<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	
	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			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	
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	P93C-ROX-012313	1/23/2013		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	<0.005	<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
	P93C-ROX-041213	4/12/2013	94.26 - 96.26	46.21	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	<0.005	<0.005	0.0045	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
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			<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	
	P93D-ROX-050511	5/5/2011	125.75 - 127.75	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	P93D-ROX-012012	1/20/2012		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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	P93D-ROX-012213	1/22/2013		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	<0.005	<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
	P93D-ROX-041113	4/11/2013		46.37	NE	<0.0005	<0.01	<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	<0.005	<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
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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	P114-ROX-012313	1/23/2013		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	<0.005	<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
	P114-ROX-041513	4/15/2013		31.80	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	<0.005	<0.005	0.0051	<0.005	<0.005	<0.001	<0.005	<0.005	<0.001		<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
ROST-3-MW	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	<0.005	0.0011 J	<0.025 UJ	0.0296	<0.005	<0.005		<0.005	0.0066	<0.005	<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
	ROST3MW-ROX-040513	4/5/2013	38.18 - 48.18	42.24	NE	0.0605	<0.005	<0.005	0.0011 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	0.0012 J	<0.025	0.0136	<0.005	<0.005		<0.005	0.0032 J	<0.005	<0.001	0.132 J	0.0082	0.0076	<0.005	<0.005	<0.001		0.0531	0.0145	<0.005	0.0603	0.0126	0.0729
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	<0.005	<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
	ROST3PZ-ROX-080712	8/7/2012		39.00	NE	0.0041	<0.005	<0.005	<0.005	<0.005	0.00072 J	<0.005	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0047	<0.005	<0.005		<0.005	<0.005	<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
	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	<0.005	<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
ROST-4-PZ(A)[6]	ROST4PZA-ROX-040413	4/4/2013	34.77 - 44.77	41.42	NE	0.208	0.0052	<0.005	<0.005	<0.005	0.00061 J	<0.001	<0.001	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0021	<0.005	<0.005		<0.005	<0.005	<0.005	0.0917	0.0022 J	<0.005	0.0106	<0.005	<0.005	<0.001		0.0044 J	0.0033 J	<0.005	0.0949	0.0921	0.187
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	<0.005	<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
	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	0.0036 J	<0.005	<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
	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	<0.005	<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
	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	<0.005	<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
	ROST4PZC-ROX-041013	4/10/2013		42.27	NE	0.0153 J	<0.01	<0.005	<0.005	<0.005	<0.005	<0.001 UJ	<0.001 UJ	<0.002	<0.001	<0.002	<0.005	<0.005	<0.025	0.0028 J	<0.005	<0.005		<0.005 UJ	0.00061 J J	<0.005 UJ	<0.001	<0.005	0.0011 J	0.0006 J J	<0.005 UJ	<0.005 UJ	<0.001 UJ		0.0016 J	<0.005	<0.005	<0.001 UJ	<0.001 UJ	<0.001 UJ
ROST-4-PZ(F)[6]	ROST4PZF-ROX-040413	4/4/2013	34.53 - 44.53	41.03	NE	0.15	<0.01	0.0036 J	0.0018 J	<0.005	<0.005	<0.001	<0.001	<0.002	<0.001	0.00098 J	<0.005	0.0019 J	<0.025	0.393	<0.005	<0.005		<0.005	0.0192	<0.005	<0.001	0.11	0.0268	0.0214	<0.005	<0.005	<0.001		0.139	0.0295	<0.005	0.767	0.0237	0.791
ROST-4-PZ(G)[6]	ROST4PZG-ROX-040413	4/4/2013	34.28 - 44.28	42.03	NE	0.0228	0.0377	<0.005	0.0021 J	<0.005	<0.005	<0.001	<0.001	0.0095	<0.001	0.0016 J	<0.005	0.0011 J	<0.025	0.0222	<0.005	<0.005		<0.005	0.0032 J	<0.005	<0.001	0.0024 J	0.008	0.0027	<0.005	<0.005	<0.001		0.0103	0.0065	<0.005	0.0214	0.0061	0.0276
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	<0.05	<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
	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	<0.005	0.0024 J	<0.025	0.285	<0.005	<0.005		<0.005	0.022	<0.005	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
	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	0.0572	<0.025	<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
	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	0.0297 J	<0.05	<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
	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	0.0468 J	<0.05	<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
	T12-ROX-011813	1/18/2013		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	0.031	<0.025	<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
	T12-ROX-041513	4/15/2013		44.99	NE	1.61	<0.05	<0.05	0.0595	<0.05	<0.05	<0.01	<0.01	<0.02	<0.01	<0.02	<0.05	<0.05	<0.25	1.03	<0.05	<0.05		<0.05	0.0405 J	<0.05	<0.01	0.266 J	0.076	0.592	<0.05	<0.05	<0.01		0.309	<0.05	<0.05	1.2	0.104	1.3

SEE LAST PAGE OF TABLE FOR NOTES

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

SVOCs — ANALYTICAL RESULTS (mg/L)

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acenaphthene	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
					Screening Values (mg/L)	0.42 [2]	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]
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	<0.048		<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	<0.049		<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		<0.0063	<0.0025	<0.0063	<0.013	<0.0063	<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	<0.0063	<0.013 UJ	<0.013	<0.0063	<0.00077 U	<0.0063	<0.013	<0.0063	<0.0063
	MW1-ROX-072711	7/27/2011		35.15	NE	<0.0001	<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
	MW1-ROX-120511	12/5/2011		37.10	NE	<0.0001	<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
	MW1-ROX-011612	1/16/2012	49.98 - 59.98	37.75	NE	0.000077 J	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
	MW1-ROX-050112	5/1/2012		39.09	NE	<0.0001	<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
	MW1-ROX-073012	7/30/2012		39.39	NE	<0.00011	<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
	MW1-ROX-102612	10/26/2012		41.22	NE	<0.00011	<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
	MW1-ROX-121712	12/17/2012		41.22	NE																
	MW1-ROX-011013	1/10/2013		42.59	NE	<0.000024 U	<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
	MW1-ROX-040913	4/9/2013	49.98 - 59.98	42.55	NE	<0.00011	<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
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	<0.01	<0.048		<0.01	<0.003 U	<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	<0.0048	0.0082 J		<0.0048	0.25	<0.0048	<0.0095	<0.0048	<0.0048
	MW02-ROX-051011	5/10/2011		39.14	NE	<0.0001 UJ	<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
	MW2-ROX-072711	7/27/2011		36.36	NE	<0.0001	<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
	MW2-ROX-072711-DUP	7/27/2011		36.36	NE	<0.0001	<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
	MW2-ROX-112811	11/28/2011	51.32 - 61.32	38.03	NE	<0.0001	<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
	MW2-ROX-011612	1/16/2012		38.89	NE	0.000057 J	<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
	MW2-ROX-050112	5/1/2012		40.25	NE	<0.0001	<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
	MW2-ROX-073012	7/30/2012		40.60	NE	0.000051 J	<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
	MW2-ROX-102612	10/26/2012		42.35	NE	0.000093 J	<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
	MW2-ROX-011113	1/11/2013		42.94	NE	0.00016	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
	MW2-ROX-040913	4/9/2013	51.32 - 61.32	43.70	NE	<0.00011	<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
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	<0.048		<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		<0.0053	0.00062 J	<0.0053	<0.011	<0.0053	<0.0053
	MW03-ROX-051011	5/10/2011		24.79	NE	<0.0001 UJ	<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
	MW3-ROX-080311	8/3/2011		22.40	NE	<0.000095	<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
	MW3-ROX-112911	11/29/2011	34.67 - 44.67	24.06	NE	<0.0001	<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
	MW3-ROX-112911-DUP	11/29/2011		24.06	NE	<0.0001	<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
	MW3-ROX-011612	1/16/2012		24.93	NE	<0.0001	<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
	MW3-ROX-043012	4/30/2012		26.19	NE	<0.0001	<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
	MW3-ROX-072712	7/27/2012		26.60	NE	<0.00011	<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
	MW3-ROX-102512	10/25/2012		28.39	NE	<0.0001	<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
	MW3-ROX-010913	1/9/2013		29.88	NE	<0.0001	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
	MW3-ROX-040813	4/8/2013	34.67 - 44.67	29.74	NE	<0.00011	<0.00011	<0.00011	<0.000057	<0.00011	<0.000057	<0.00011	<0.00011	<0.011	<0.011	<0.0057	<0.0023	<0.0057	<0.011	<0.00011	<0.00011
MW-04	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	<0.047		<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		<0.0052	<0.0021	<0.0052	<0.01	<0.0052	<0.0052
	MW04-ROX-051111	5/11/2011		36.19	NE	<0.0001 UJ	<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
	MW4-ROX-072611	7/26/2011		33.65	NE	<0.0001	<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
	MW4-ROX-072611-DUP	7/26/2011		33.65	NE	<0.0001	<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
	MW4-ROX-121511	12/15/2011		33.99	NE	<0.0001	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
	MW4-ROX-011612	1/16/2012	46.06 - 56.06	36.00	NE	<0.0001	<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
	MW4-ROX-050312	5/3/2012		37.45	NE	<0.0001	<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
	MW4-ROX-050312-DUP	5/3/2012		37.45	NE	<0.0001	<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
	MW4-ROX-072512	7/25/2012		37.63	NE	<0.0001	<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
	MW4-ROX-072512-Dup	7/25/2012		37.63	NE	<0.0001	<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
	MW4-ROX-102912	10/29/2012		39.45	NE	<0.0001	<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
	MW4-ROX-011113	1/11/2013		40.20	NE	<0.00011	<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
	MW4-ROX-011113-DUP	1/11/2013		40.20	NE	<0.00012	<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
	MW4-ROX-030413	3/4/2013		40.20	NE																
	MW4-ROX-040913	4/9/2013	46.06 - 56.06	40.90	NE	<0.00011	<0.00011	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011
	MW4-ROX-040913-DUP	4/9/2013		40.90	NE	<0.00011	<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
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	<0.048		<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		<0.0053	<0.0021	<0.0053	<0.011	<0.0053	<0.0053
	MW05-ROX-051211	5/12/2011		23.98	NE	<0.00011 UJ	<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
	MW5-ROX-072611	7/26/2011		21.72	NE	<0.0001	<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
	MW5-ROX-072611-DUP	7/26/2011		21.72	NE	<0.0001	<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
	MW5-ROX-112111	11/21/2011	33.97 - 43.97	23.46	NE	<0.00011	<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
	MW5-ROX-011712	1/17/2012		24.76	NE	<0.00011	<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
	MW5-ROX-050312	5/3/2012		25.89	NE	<0.0001	<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
	MW5-ROX-072512	7/25/2012		26.18	NE	<0.0001	<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
	MW5-ROX-102912	10/29/2012		28.16	NE	<0.0001	<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
	MW5-ROX-011113	1/11/2013		28.75	NE	0.000071 J	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
	MW5-ROX-040913	4/9/2013	33.97 - 43.97	29.41	NE	<0.00011	<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
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	<0.048		<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	<0.005	0.0044 J J		<0.005	<0.002	<0.005	<0.01	<0.005	<0.005
	MW6A-ROX-051611	5/16/2011		26.10	NE	<0.0001 UJ	<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
	MW6A-ROX-072611	7/26/2011		24.07	NE	0.00024	<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
	MW6A-ROX-112111	11/21/2011	34.83 - 44.83	25.49	NE	<0.0001	<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
	MW6A-ROX-112111-DUP	11/21/2011		25.49	NE	<0.0001	<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
	MW6A-ROX-011712	1/17/2012		26.74	NE	<0.00011	<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
	MW6A-ROX-050212	5/2/2012		27.77	NE	<0.0001	<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
	MW6A-ROX-080112	8/1/2012		28.36	NE	<0.0001	<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
	MW6A-ROX-102412	10/24/2012		30.06	NE	<0.00011	<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
	MW6A-ROX-011413	1/14/2013		31.00	NE	<0.0001	<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
	MW6A-ROX-040313	4/3/2013	34.83 - 44.83	31.62	NE	<0.00011	<0.00011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	0.00052 J	<0.0053	<0.011	<0.00011	<0.00011

Location	Sample ID	Dibenzofuran	2,4 Dichlorophenol	Diethyl phthalate	2,4 Dimethylphenol	Dimethyl phthalate	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)
	Screening Values (mg/L)	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]		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]
MW-01	MW-1-111110	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01
	MW-1-111110-Dup	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01
	MW1-ROX-011711	<0.0063	<0.013	<0.0063	<0.013	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063	<0.0063		<0.0063	<0.0063		<0.0063	<0.013
	MW1-ROX-042911	<0.0063	<0.013	<0.0063	<0.013	<0.0063	<0.00085 U	<0.0063	<0.0063	<0.0063	<0.0063		<0.0063	<0.0063		<0.0063	<0.013
	MW1-ROX-072711	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW1-ROX-120511	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW1-ROX-011612	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	0.00011	0.000059 J	<0.0051		<0.00012 U	<0.0051	<0.0002	0.000098 J	<0.01
	MW1-ROX-050112	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.00054 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW1-ROX-073012	<0.0021	<0.011	0.00032 J	<0.011	<0.0053	<0.00043 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	MW1-ROX-102612	<0.0023	<0.011	<0.0057	<0.011	<0.0057	<0.0057	<0.0057	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011
	MW1-ROX-121712																
	MW1-ROX-011013	<0.0021	<0.01	<0.0052	<0.01	<0.0052 UJ	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW1-ROX-040913	<0.0021	<0.011	0.0011 J U	<0.011	<0.0053 UJ	0.0012 J U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
MW-02	MW-2-111010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		0.014	<0.01
	MW2-ROX-011711	<0.0048	<0.0095	<0.0048	0.0022 J	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048	<0.0048		<0.0048	<0.0048		0.0065	0.0028 J
	MW02-ROX-051011	<0.0052	<0.01	0.0016 J J	<0.01	<0.0052 UJ	<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
	MW2-ROX-072711	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0098	0.0167	<0.01
	MW2-ROX-072711-DUP	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0096	0.0169	<0.01
	MW2-ROX-112811	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0141	0.0299	<0.01
	MW2-ROX-011612	<0.0053	<0.011	<0.0053	0.0035 J	<0.0053	0.00056 J	<0.0053	<0.00011	0.000052 J	<0.0053		<0.000054 U	<0.0053	0.0107	0.0229	<0.011
	MW2-ROX-050112	<0.0052	<0.01	<0.0052	0.0055 J	<0.0052	<0.0005 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0105	0.021	<0.01
	MW2-ROX-073012	<0.0021	<0.011	0.00036 J	0.0045 J	<0.0053	<0.00047 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0097	0.0229	<0.011
	MW2-ROX-102612	<0.0022	<0.011	<0.0054	0.0034 J	<0.0054	<0.0054	<0.0054	0.000061 J	0.00011	<0.0054		<0.00011	<0.0054	0.0091	0.0182	<0.011
	MW2-ROX-011113	<0.0022	<0.011	<0.0056	<0.011	<0.0056 UJ	<0.0056	<0.0056	0.00004 J	<0.00011	<0.0056		<0.00011	<0.0056	0.008	0.0162	<0.011
	MW2-ROX-040913	<0.0022	<0.011	<0.0054	0.005 J	<0.0054 UJ	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.012	0.0256	<0.011
MW-03	MW-3-111210	<0.01	<0.01	<0.01	<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	<0.0053	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011
	MW03-ROX-051011	<0.005	<0.01	<0.005 UJ	<0.01	<0.005 UJ	<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
	MW3-ROX-080311	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048	<0.00061 U	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	0.00029	0.00017 J	<0.0095
	MW3-ROX-112911	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW3-ROX-112911-DUP	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW3-ROX-011612	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	0.000098 J	<0.0001	<0.0052		<0.00015 U	<0.0052	<0.00021	0.00015 J	<0.01
	MW3-ROX-043012	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.00047 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW3-ROX-072712	<0.0021	<0.011	<0.0053	<0.011	<0.0053	<0.00066 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	MW3-ROX-102512	<0.002	<0.01	<0.00059 U	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW3-ROX-010913	<0.002	<0.01	<0.005	<0.01	<0.005	0.0025 J	<0.005	0.000047 J	0.000052 J	<0.005		<0.0001	<0.005	<0.0002	0.000081 J	<0.01
	MW3-ROX-040813	<0.0023	<0.011	<0.0057	<0.011	<0.0057	<0.0057	<0.0057	<0.00011	<0.00011	<0.0057		<0.00011	<0.0057	<0.00023	<0.00023	<0.011
MW-04	MW-4-111210	<0.009	<0.009	<0.009	<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	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052		<0.0052	<0.0052		<0.0052	<0.01
	MW04-ROX-051111	<0.005	<0.01	<0.005 UJ	<0.01	<0.005 UJ	<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
	MW4-ROX-072611	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00044	0.00029	<0.01
	MW4-ROX-072611-DUP	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00031	0.0002	<0.01
	MW4-ROX-121511	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.00043 U	<0.0052	0.00028	0.00026	<0.01
	MW4-ROX-011612	<0.0052	<0.01	<0.0052	<0.01	<0.0052	0.00077 J	<0.0052	0.000047 J	<0.0001	<0.0052		<0.00018 U	<0.0052	0.0006	0.00059	<0.01
	MW4-ROX-050312	<0.005	<0.01	<0.005	<0.01	<0.005	<0.00062 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00032	0.00025	<0.01
	MW4-ROX-050312-DUP	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.00061 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW4-ROX-072512	<0.002	<0.01	0.0014 J	<0.01	<0.0051	0.00075 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.00054	0.00045 B	<0.01
	MW4-ROX-072512-Dup	<0.002	<0.01	0.0012 J	<0.01	<0.0051	0.00057 J	<0.0051	<0.000047 U	<0.0001	<0.0051		<0.0001	<0.0051	0.00049	0.0004 B	<0.01
	MW4-ROX-102912	<0.0021	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.00025	0.00016 J	<0.01
	MW4-ROX-011113	<0.0022	<0.011	<0.0056	<0.011	<0.0056 UJ	<0.0056	<0.0056	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	0.00014 J	<0.011
	MW4-ROX-011113-DUP	<0.0024	<0.012	<0.006	<0.012	<0.006 UJ	<0.006	<0.006	<0.00012	<0.00012	<0.006		<0.00012	<0.006	<0.00024	0.000099 J	<0.012
	MW4-ROX-030413																
	MW4-ROX-040913	<0.0021	<0.011	<0.0053	<0.011	<0.0053 UJ	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00022	0.000082 J	<0.011
	MW4-ROX-040913-DUP	<0.0021	<0.011	<0.0053 UJ	<0.011	<0.0053 UJ	0.00062 J U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000076 J	<0.011
MW-05	MW-5-111210	<0.01	<0.01	<0.01	<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	<0.0053	<0.011	0.0009 J	<0.011	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011
	MW05-ROX-051211	<0.0053	<0.011	<0.0053	<0.011	<0.0053	<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
	MW5-ROX-072611	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00056	<0.0002	<0.01
	MW5-ROX-072611-DUP	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00075	<0.0002	<0.01
	MW5-ROX-112111	<0.0053	<0.011	<0.0053	<0.011	<0.0053	0.00052 J	<0.0053	0.00041	<0.00011	<0.0053		<0.00011	<0.0053	0.00051 J	<0.00021	<0.011
	MW5-ROX-011712	<0.0053	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.0016	<0.00021	<0.011
	MW5-ROX-050312	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.0005 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	0.00072 J	0.0117	<0.0002	<0.01
	MW5-ROX-072512	<0.0021	<0.01	0.0011 J	<0.01	<0.0052	0.00057 J	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.003	<0.00021	<0.01
	MW5-ROX-102912	<0.002	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.0091	0.000084 J	<0.01
	MW5-ROX-011113	<0.0022	<0.011	<0.0055	<0.011	<0.0055 UJ	<0.0055	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	0.0043	0.000084 J	<0.011
	MW5-ROX-040913	<0.0022	<0.011	<0.0054	<0.011	<0.0054 UJ	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.004	<0.00022	<0.011
MW-06A	MW-6A-110910	<0.01	<0.01	<0.01	<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	<0.005	<0.01	<0.0019 U	<0.01	<0.005	0.00081 J	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01
	MW6A-ROX-051611	<0.005	<0.01	<0.00083 U	<0.01	<0.005	<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
	MW6A-ROX-072611	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6A-ROX-112111	<0.0052	<0.01	<0.0052	<0.01	<0.0052	0.00053 J	0.00093 J	<0.0001	<0.0001	<0.0052		0.0015 J	<0.0052	<0.00021 UJ	<0.00021	<0.01
	MW6A-ROX-112111-DUP	<0.0051	<0.01	<0.0051	<0.01	<0.0051	0.00069 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001 UJ	<0.0051	<0.0002 UJ	<0.0002	<0.01
	MW6A-ROX-011712	<0.0054	<0.011	<0.0054	<0.011	<0.0054	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00015 U	<0.0054	<0.00022	<0.00022	<0.011
	MW6A-ROX-050212	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6A-ROX-080112	<0.002	<0.01	<0.005	<0.01	<0.005	0.00049 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.002	<0.0002	<0.01
	MW6A-ROX-102412	<0.0021	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	MW6A-ROX-011413	<0.002	<0.01	<0.0051	<0.01	<0.0051 UJ	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		0.000072 J	<0.0051	<0.0002	<0.0002	<0.01
	MW6A-ROX-040313	<0.0021	<0.011	<0.0053	<0.011	<0.0053	0.0018 J	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011

SEE LAST PAGE OF TABLE FOR NOTES

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

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	SVOCs: Acenaphthene	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	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)
					Screening Values (mg/L)	0.42 [2]	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]		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]
						ANALYTICAL RESULTS (mg/L)																															
MW-06B	MW-6B-111610	11/16/2010		25.47	NE	<0.01	<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	<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	<0.005	<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	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01
	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 UJ		<0.0051	<0.002	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.001 U	<0.01	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051		<0.0051	<0.0051		<0.0051	<0.01
	MW6B-ROX-051611	5/16/2011		25.95	NE	<0.000095 UJ	0.000098 J	<0.000095 UJ	<0.000048 UJ	<0.000095 UJ	<0.000048 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	<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
	MW6B-ROX-051611-DUP	5/16/2011		25.95	NE	<0.0001 UJ	<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	<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
	MW6B-ROX-072311	7/23/2011	64.05 - 69.05	23.60	NE	<0.00011	<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	<0.00047 U	<0.0053	<0.00021 U	<0.00011	<0.0053		<0.000057 U	<0.0053	<0.00021	<0.000022 U	<0.011
	MW6B-ROX-110311	11/3/2011		24.67	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6B-ROX-011712	1/17/2012		26.77	NE	<0.00011	<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	0.00055 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00028 U	<0.0055	<0.00022	<0.00022	<0.011
	MW6B-ROX-050212	5/2/2012		27.82	NE	<0.0001	<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	0.00039 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6B-ROX-080112	8/1/2012		28.39	NE	<0.0001	<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	0.0007 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.002	<0.0002	<0.01
	MW6B-ROX-102412	10/24/2012		30.11	NE	<0.0001	<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	0.00079 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW6B-ROX-011713	1/17/2013		31.11	NE	<0.0001	<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	0.0026 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6B-ROX-040313	4/3/2013	64.05 - 69.05	31.68	NE	<0.00011	<0.00011 UJ	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011	<0.0022	<0.011	<0.0054	<0.011	<0.0054	0.0012 J	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	0.0002 J	<0.011
MW-06C	MW-6C-111610	11/16/2010		25.25	NE	<0.01	<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	<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	<0.0053	<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	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011
	MW6C-ROX-051611	5/16/2011		25.76	NE	<0.0001 UJ	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	<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
	MW6C-ROX-072411	7/24/2011		23.43	NE	<0.00011	<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	<0.0004 U	<0.0053	0.000024 JB	<0.00011	<0.0053		0.000025 J	<0.0053	<0.00021	0.000017 JB	<0.011
	MW6C-ROX-110311	11/3/2011	84.95 - 89.95	24.47	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6C-ROX-011712	1/17/2012		26.50	NE	<0.00011	<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	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011
	MW6C-ROX-050212	5/2/2012		27.62	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6C-ROX-080112	8/1/2012		28.15	NE	<0.0001	<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	0.001 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.002	<0.0002	<0.01
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW6C-ROX-011713	1/17/2013		30.88	NE	<0.0001	<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	0.0022 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6C-ROX-040313	4/3/2013	84.95 - 89.95	31.41	NE	<0.0001	<0.0001 UJ	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001	<0.0001	<0.01	<0.01 UJ	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001	<0.0021	<0.01	<0.0052	<0.01	<0.0052	0.00077 J	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	0.00016 J	<0.01
MW-06D	MW-6D-111610	11/16/2010		25.13	NE	<0.01	<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	<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	<0.0053	<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	0.00071 J	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011
	MW6D-ROX-051611	5/16/2011		25.60	NE	<0.00011 UJ	<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	<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
	MW6D-ROX-072311	7/23/2011		23.29	NE	<0.00011	<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	<0.00046 U	<0.0053	<0.000067 U	<0.00011	<0.0053		<0.000033 U	<0.0053	<0.00021	<0.000018 U	<0.011
	MW6D-ROX-110311	11/3/2011	104.72 - 109.72	24.31	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW6D-ROX-011712	1/17/2012		26.33	NE	<0.00011	<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	0.00047 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.000085 U	<0.011
	MW6D-ROX-050212	5/2/2012		27.45	NE	<0.0001	<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	0.00047 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.0005 U	<0.00021	<0.00021	<0.01
	MW6D-ROX-080212	8/2/2012		30.56	NE	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW6D-ROX-102412	10/24/2012		29.71	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW6D-ROX-011713	1/17/2013		30.75	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW6D-ROX-040313	4/3/2013	104.72 - 109.72	31.27	NE	<0.00011	<0.00011 UJ	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011 UJ	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	<0.011	<0.0053	0.00069 J	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
MW-07	MW-7-111710	11/17/2010		36.93	NE	<0.01	<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	<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	<0.01	<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	<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	<0.0053	<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	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		0.0023 J	<0.011
	MW07-ROX-051311	5/13/2011		37.50	NE	0.00011 J	<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	<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
	MW07-ROX-051311D	5/13/2011		37.50	NE	0.00011 J	<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	<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
	MW7-ROX-072411	7/24/2011		35.22	NE	0.0001 J	<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	<0.00044 U	<0.0054	0.00003 J	0.000066 J	<0.0054		<0.00011	<0.0054	0.0024	0.003	<0.011
	MW-7-ROX-110211	11/2/2011	42.92 - 52.92	35.95	NE	<0.00026 U	<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	<0.005	<0.005	<0.0001	<0.00028 U	<0.005		<0.0001	<0.005	<0.0043 U	<0.0059 U	<0.01
	MW7-ROX-011812	1/18/2012		38.10	NE	0.00025	<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	0.00045 J	<0.005	<0.0001	0.00018	<0.005		<0.0001	<0.005	0.0055	0.0069	<0.01
	MW7-ROX-011812-DUP	1/18/2012		38.10	NE	0.00027	<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	<0.0056	<0.0056	<0.00011	0.0002	<0.0056		<0.00011	<0.0056	0.0057	0.0071	<0.011
	MW7-ROX-050412	5/4/2012		39.19	NE	0.00028	<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	<0.00095 U	<0.005	0.000039 J	0.00019	<0.005		<0.0001	<0.005	0.0075	0.0087	<0.01
	MW7-ROX-080712	8/7/2012		39.50	NE	0.00024	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	<0.0051	<0.0051	<0.0001	0.00016	<0.0051		<0.0001	<0.0051	0.0055	0.0065	<0.01
	MW7-ROX-103012	10/30/2012		41.23	NE	0.00031	<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	<0.0058	<0.0058	<0.00012	0.00023	<0.0058		<0.00012	<0.0058	0.0061 J	0.0077	<0.012
	MW7-ROX-103012-DUP	10/30/2012		41.23	NE	0.00034	<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	<0.0056	<0.0056	<0.00011	0.00026	<0.0056		<0.00011	<0.0056	0.008 J	0.0098	<0.011
	MW7-ROX-011513	1/15/2013		42.21	NE	0.00073	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	<0.0053	<0.0053	0.00004 J	0.00061	<0.0053		<0.00011	<0.0053	0.0187	0.0224	<0.011
	MW7-ROX-011513-DUP	1/15/2013		42.21	NE	0.00066	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	<0.0052	<0.0052	<0.0001	0.00057	<0.0052		<0.0001	<0.0052	0.0173	0.0207	<0.01
	MW7-ROX-041013	4/10/2013		42.70	NE	0.0012	0.00015	0.000089 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	0.00083 J	<0.011	<0.0054	<0.011	<0.0054	<0.0054	<0.0054	0.000039 J	0.00081	<0.0054		<0.00011	<0.0054	0.0271	0.0351	<0.011
	MW7-ROX-041013-DUP	4/10/2013	42.92 - 52.92	42.70	NE	0.0012	0.00016	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	0.00088 J	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	0.000068 J	0.00087	<0.0053		<0.00011	<0.0053	0.0274	0.0357	<0.011
MW-08	MW-8-111710	11/17/2010		27.84	NE	<0.01	<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	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		0.005 J	<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	<0.005	<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	<0.005	0.0004 J	<0.005	<0.005	<0.005		<0.005	<0.005		0.0069	0.0195
	MW8-ROX-012511-DUP	1/25/2011		28.59	NE	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<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	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057		<0.0057	<0.0057		0.0075	0.0228
	MW08-ROX-051311	5/13/2011		28.35	NE	0.00035 J	<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	<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
	MW08-ROX-051311D	5/13/2011		28.35	NE	0.00029 J	<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	<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
	MW8-ROX-072411	7/24/2011		26.02	NE	0.00029	<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	<0.0054	0.00077 J	0.000031 JB	0.00034	<0.0054		0.000032 J	<0.0054	0.0055	0.0068	0.0205
	MW8-ROX-072411-DUP	7/24/2011	33.60 - 43.60	26.02	NE	0.00027	<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	<0.00038 U	0.00054 J	0.000022 JB	0.0003	<0.0055		0.000042 J	<0.0055	0.0052	0.0064	0.0177
	MW-8-ROX-110211	11/2/2011		27.02	NE	<0.00023 U	<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	<0.0048	<0.0048	<0.000095	<0.00032 U	<0.0048		<0.000095	<0.0048	<0.0094 U	<0.0119 U	0.0152
	MW8-ROX-011812	1/18/2012		29.15	NE	0.00038 J	<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	<0.0053	<0.0053	<0.00053	0.00074	<0.0053		<0.00053	<0.0053	0.0165	0.0204	0.0044 J
	MW8-ROX-050412	5/4/2012		30.21	NE	<0.00011	<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	<0.00063 U	<0.0053	<0.00011	0.00024	<0.0053		<0.00011	<0.0053	0.0085	0.0099	0.0302
	MW8-ROX-050412-DUP	5/4/2012		30.21	NE	<0.0001	<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	<0.005	<0.005	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0086	0.0102	0.0275
	MW8-ROX-080712	8/7/2012		30.97	NE	0.00023	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	<0.0054	<0.0054	<0.00011	0.00027	<0.0054		<0.00011	<0.0054	0.0091	0.0109	0.0075 J
	MW8-ROX-080712-DUP	8/7/2012		30.97	NE	0.0002	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	<0.0056	<0.0056	<0.00011	0.00026	<0.0056		<0.00011	<0.0056	0.0092	0.0111	0.0081 J
	MW8-ROX-103012	10/30/2012		32.32	NE	0.00026	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	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
	MW8-ROX-011513	1/15/2013		33.30	NE	0.00017	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	<0.0056	<0.0056	<0.00011	0.00041	<0.0056		<0.00011	<0.0056	0.011	0.0129	0.0332
	MW8-ROX-041013	4/10/2013	33.60 - 43.60	33.77	NE	0.00018	0.000059 J	0.000072 J	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	<0.011	<0.011	<0.0053	0.0023	<0.0053	<0.011	<0.00011	<0.00011	<0.0021	<0.011	<0.0053	0.0358	<0.0053	0.0013 J	<0.0053	0.000056 J	0.00032	<0.0053		<0.00011	<0.0053	0.0091	0.0113	0.0388

SEE LAST PAGE OF TABLE FOR NOTES

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

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	SVOCs: Acenaphthene	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	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)
					Screening Values (mg/L)	0.42 [2]	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]		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]
						ANALYTICAL RESULTS (mg/L)																															
	MW-9-111510	11/15/2010		39.00	NE	<0.01	<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	<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	<0.0053	<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	0.00064 J	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011
	MW09-ROX-050611	5/6/2011		40.12	NE	<0.000097 UJ	<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	<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
	MW9-ROX-072311	7/23/2011		37.27	NE	<0.00011	<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	<0.0054	<0.0054	<0.000044 U	<0.00011	<0.0054		<0.000031 U	<0.0054	<0.00022	<0.00022	<0.01 UJ
	MW9-ROX-110111	11/1/2011		37.78	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
MW-09	MW9-ROX-011612	1/16/2012	46.45 - 56.45	39.50	NE	<0.00011	<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	<0.000078 U	<0.0057	<0.011	<0.0057	<0.011	<0.0057	0.00048 J	<0.0057	<0.00011	<0.00011	<0.0057		<0.000098 U	<0.0057	<0.00023	<0.00023	<0.011
	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	<0.0001	<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	<0.00054 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW9-ROX-102912	10/29/2012		43.17	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW9-ROX-011113	1/11/2013		44.70	NE	0.000068 J	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	<0.0054	<0.0054	0.000066 J	0.00011	<0.0054		<0.00011	<0.0054	<0.00022	0.00014 J	<0.011
	MW9-ROX-040913	4/9/2013	46.45 - 56.45	44.67	NE	<0.0001 UJ	<0.0001 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.000052 UJ	<0.0001 UJ	<0.0001 UJ	<0.01 UJ	<0.01 UJ	<0.0052 UJ	<0.0021 UJ	<0.0052 UJ	<0.01 UJ	<0.0001 UJ	<0.0001 UJ	<0.0021 UJ	<0.01 UJ	0.0016 J UJ	<0.01 UJ	<0.0052 UJ	0.0018 J UJ	<0.0052 UJ	<0.0001 UJ	<0.0001 UJ	<0.0052 UJ		<0.0001 UJ	<0.0052 UJ	<0.00021 UJ	<0.00021 UJ	<0.01 UJ
	MW-10-111010	11/10/2010		38.97	NE	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<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	<0.0051	<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	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051		<0.0051	<0.0051		<0.0051	<0.01
	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		<0.005	0.00071 J	<0.005	<0.01	<0.005	<0.005	<0.005	<0.01	<0.0012 U	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01
	MW10-ROX-042811	4/28/2011		40.20	NE	<0.0048	<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	<0.00061 U	<0.0048	<0.0048	<0.0048	<0.0048		<0.0048	<0.0048		<0.0048	<0.0095
	MW10-ROX-072311	7/23/2011		37.24	NE	<0.0001	<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	<0.005	<0.005	<0.000047 U	<0.0001	<0.005		<0.000031 U	<0.005	<0.0002	<0.00002 U	<0.01
	MW10-ROX-110111	11/1/2011		37.72	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
MW-10	MW10-ROX-011612	1/16/2012	44.43 - 54.43	39.28	NE	<0.00011	<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	0.00081 J	<0.0053	0.000052 J	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000055 J	<0.011
	MW10-ROX-050112	5/1/2012		40.86	NE	<0.0001	<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	<0.00041 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW10-ROX-072712	7/27/2012		41.21	NE	<0.0001	<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	<0.00043 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW10-ROX-102612	10/26/2012		43.08	NE	<0.00011	<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	<0.0056	<0.0056	0.000052 J	0.000086 J	<0.0056		<0.00011	<0.0056	<0.00022	0.00009 J	<0.011
	MW10-ROX-121712	12/17/2012		43.08	NE																																
	MW10-ROX-011013	1/10/2013		44.61	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW10-ROX-012113	1/21/2013		44.61	NE	<0.0001	<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	<0.01	<0.01	<0.0001	<0.0001	<0.002		<0.0001	<0.01		<0.01	<0.01
	MW10-ROX-040913	4/9/2013	44.43 - 54.43	44.60	NE	<0.00011	<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	0.0018 J U	<0.011	<0.0054 UJ	0.0019 J U	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011
	MW-11-111710	11/17/2010		36.39	NE	<0.01	<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	<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	<0.0052	<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	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052		<0.0052	<0.0052		<0.0052	<0.01
	MW11-ROX-050611	5/6/2011		37.60	NE	<0.000095 UJ	<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	<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
	MW11-ROX-072411	7/24/2011		34.68	NE	<0.00011	<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	<0.0056	<0.0056	0.000025 JB	<0.00011	<0.0056		0.000026 J	<0.0056	<0.00022	0.000023 JB	<0.011
	MW-11-ROX-110211	11/2/2011		35.44	NE	<0.00011	<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	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011
MW-11	MW11-ROX-011712	1/17/2012	41.66 - 51.66	37.44	NE			0.000022 J J					0.000065 J J																								
	MW11-ROX-043012	4/30/2012		38.66	NE	<0.0001	<0.0001	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW11-ROX-072712	7/27/2012		38.90	NE	<0.00012	<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	<0.00057 U	<0.0058	<0.00012	<0.00012	<0.0058		<0.00012	<0.0058	<0.00023	<0.00023	<0.012
	MW11-ROX-102512	10/25/2012		40.59	NE	<0.00011	<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	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011
	MW11-ROX-011013	1/10/2013		42.15	NE	<0.0001 UJ	<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	<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
	MW11-ROX-040813	4/8/2013	41.66 - 51.66	42.02	NE	<0.00011	<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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	MW-12-111510	11/15/2010		36.63	NE	<0.01	<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	<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	<0.005	<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	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01
	MW12-ROX-051211	5/12/2011		37.58	NE	<0.0001 UJ	<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	<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
	MW12-ROX-072411	7/24/2011		34.88	NE	<0.0001	<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	<0.00039 U	<0.005	0.000035 JB	<0.0001	<0.005		0.000047 J	<0.005	<0.0002	<0.0002	<0.01 UJ
	MW-12-ROX-110211	11/2/2011		35.70	NE	<0.000095	<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	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095
MW-12	MW-12-ROX-110211-DUP	11/2/2011	41.92 - 51.92	35.70	NE	<0.000095	<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	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095
	MW12-ROX-011712	1/17/2012		37.70	NE	<0.00011	<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	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00023 U	<0.0054	<0.00022	<0.00022	<0.011
	MW12-ROX-011712-DUP	1/17/2012		37.70	NE	<0.00011	<0.00011	<0.00011	<0.000056	<0.000039 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	<0.0056	<0.0056	<0.00011	<0.00011	<0.0056		<0.00007 U	<0.0056	<0.00022	<0.00022	<0.011
	MW12-ROX-043012	4/30/2012		38.98	NE	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW12-ROX-072712	7/27/2012		39.22	NE	<0.00011	<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	<0.00063 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	MW12-ROX-102512	10/25/2012		40.95	NE	<0.00011	<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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	MW12-ROX-011013	1/10/2013		42.46	NE	<0.0001	<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	<0.0051	<0.0051	0.000045 J	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	MW12-ROX-040813	4/8/2013	41.92 - 51.92	42.46	NE	<0.0001	<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	<0.0052	<0.0052	0.000044 J	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW13-ROX-012511	1/25/2011		24.28	NE	<0.0052	<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	<0.0052	<0.0052	<0.0052	0.00044 J	<0.0052		<0.0052	<0.0052		0.0021 J	<0.01
	MW13-ROX-051311	5/13/2011		23.65	NE	<0.000099 UJ	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	<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
	MW13-ROX-080311	8/3/2011		21.88	NE	<0.0001	<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	<0.00074 U	<0.005	<0.0001	<0.0001	<0.005		0.00004 J	<0.005	<0.0002	0.00011 J	<0.01
	MW13-ROX-110311	11/3/2011		22.85	NE	<0.00011	<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	<0.0056	<0.0056	<0.00011	<0.00033 U	<0.0056		<0.00011	<0.0056	<0.00081 U	<0.0003 U	<0.011
MW-13	MW13-ROX-012012	1/20/2012	25.57 - 35.57	24.77	NE	<0.00011	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	<0.00058 U	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00022	<0.00027 U	<0.011
	MW13-ROX-050712	5/7/2012		25.79	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	MW13-ROX-080812	8/8/2012		26.67	NE	0.0001 J	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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00021	<0.00014 UJ	<0.011
	MW13-ROX-110812	11/8/2012		25.30	NE	<0.0001	<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	0.00054 J	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	MW13-ROX-012313	1/23/2013		29.26	NE	<0.00011	<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	0.0027 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	0.00011 J	<0.011
	MW13-ROX-041213	4/12/2013	25.57 - 35.57	29.44	NE	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	0.00011 J	<0.01
	MW14-ROX-110911	11/9/2011	Unknown			<0.00011	<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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	MW14-ROX-051012	5/10/2012				0.00046	<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	0.00043 J	<0.0052	<0.0001	0.00022	<0.0052		<0.0001	<0.0052	0.0101	0.0015	<0.01
MW-14	MW14-ROX-080312	8/3/2012		29.87	NE	0.00095	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	<0.0053	<0.0053	<0.00011	0.00071	<0.0053		<0.00011	<0.0053	0.019	0.0038	<0.011
	MW14-ROX-103112	10/31/2012	33.42 - 43.42	32.02	NE	0.00074	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	0.00044 J	<0.005	<0.0001	0.00029	<0.005		<0.0001	<0.005	0.0192	0.004	<0.01
	MW14-ROX-011813	1/18/2013		33.05	NE	0.00092	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	<0.005	<0.005	<0.0001	0.00064	<0.005		<0.0001	<0.005	0.0215	0.0084	<0.01
	MW14-ROX-041113	4/11/2013	33.42 - 43.42	33.31	NE	0.00068	0.000098 J	<0.00011	0.00013	<0.00011	0.000054	0.000053 J	<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	<0.0054	<0.0054	0.000068 J	0.00016	<0.0054		<0.00011	<0.0054	0.0124	0.0018	<0.011
MW-16	MW16-ROX-012313	1/23/2013	37.43 - 47.43	43.05	NE	<0.00011	<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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000085 J	<0.011
	MW16-ROX-040813	4/8/2013	37.43 - 47.43	43.39	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	0.000058 J	<0.01
MW-18[6]	MW18-ROX-040513	4/5/2013	35.25 - 50.25	42.38	NE																																
MW-21[6]	MW21-ROX-040513	4/5/2013	35.30 - 50.30	43.79	NE																																
	MW21-ROX-040513-DUP	4/5/2013		43.79	NE																																
	MW22-ROX-012313	1/23/2013	38.21 - 48.21	41.80	NE	0.00018	<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	0.0024 J	<0.0052	<0.0001	0.00018	<0.0052		<0.0001	<0.0052	0.0276	0.05	0.018
MW-22	MW22-ROX-012313-DUP	1/23/2013		41.80	NE	0.00018	<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	0.0024 J	<0.0053	<0.00011	0.00018	<0.0053		<0.00011	<0.0053	0.028	0.0501	0.0187
	MW22-ROX-040513	4/5/2013	38.21 - 48.21	42.23	NE	0.00018	0.000049 J J	<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	0.0269	<0.0053	0.00057 J	<0.0053	<0.00011	0.00018	<0.0053		<0.00011	<0.0053	0.0241	0.0413	0.0236
MW-24	MW24-ROX-040513	4/5/2013	38.89 - 48.89	43.39	NE	<0.0001	<0.0001 UJ	<0.0001	<0.000052	<0.0001	0.000057	<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	0.00049 J	<0.0052	0.000088 J	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	0.00015 J	<0.01

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

SVOCs — ANALYTICAL RESULTS (mg/L)

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acenaphthene	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
					Screening Values (mg/L)	0.42 [2]	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]
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	<0.048		<0.01	<0.003 U	<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		<0.005	<0.002	<0.005	<0.01	<0.005	<0.005
	P54-ROX-051111	5/11/2011		37.37	NE	<0.00011 UJ	<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
	P54-ROX-072411	7/24/2011		34.78	NE	<0.0001	<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
	P54-ROX-110311	11/3/2011		35.49	NE	<0.0001	<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
	P54-ROX-011712	1/17/2012		37.17	NE	<0.0001	<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
	P54-ROX-050412	5/4/2012		38.77	NE	<0.0001	<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
	P54-ROX-080212	8/2/2012		38.95	NE	<0.00011	<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
	P54-ROX-103012	10/30/2012		40.70	NE	<0.0001	<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
	P54-ROX-011113	1/11/2013		41.56	NE	<0.00011	<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
	P54-ROX-050313	5/3/2013	38.00 - 63.00	41.80	NE	<0.00011	<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
P-55	P55-ROX-103111	10/31/2011	39.82 - 64.82	39.15	NE	<0.0001	<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
	P55-ROX-011912	1/19/2012		41.09	NE	0.00017	<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
	P55-ROX-011912-D	1/19/2012		41.09	NE	0.00015	<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
	P55-ROX-050912	5/9/2012		42.44	NE	0.00036	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
	P55-ROX-012113	1/21/2013	40.85 - 50.85	43.60	NE	0.00069	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
	P55-ROX-012113	1/21/2013		43.60	NE	0.00054	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
	P55-ROX-041513	4/15/2013	40.85 - 50.85	43.63	NE	0.00073	0.00021	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.0052	<0.0021	<0.0052	<0.01	<0.0001	<0.0001
P-56	P56-ROX-102711	10/27/2011	40.82 - 65.82	39.42	NE	0.0007	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
	P56-ROX-011912	1/19/2012		41.81	NE	0.00064	<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
	P56-ROX-050812	5/8/2012		43.09	NE	0.00057	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
	P56-ROX-080612	8/6/2012		43.60	NE	0.00058	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
	P56-ROX-103112	10/31/2012		44.80	NE	0.0011	<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
	P56-ROX-011713	1/17/2013		45.65	NE	0.00039	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
	P56-ROX-041213	4/12/2013	40.82 - 65.82	46.12	NE	0.00053	0.000088 J	0.0001 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
P-57	P57-ROX-110811	11/8/2011	40.46 - 65.46	39.20	NE	0.00055	<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
	P57-ROX-021312	2/13/2012		42.13	NE	0.00056	<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
	P57-ROX-050712	5/7/2012		42.92	NE	0.00033	<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
	P57-ROX-080612	8/6/2012		43.53	NE	0.00056	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
	P57-ROX-080612-DUP	8/6/2012		43.53	NE	0.00051	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
	P57-ROX-110512	11/5/2012		44.98	NE	0.00053	<0.0001	0.000061 J	<0.00005	<0.0001	<0.00005	0.00005 J	<0.0001	<0.01 UJ	<0.01	<0.005	0.00052 J	<0.005	<0.01	<0.0001	0.000049 J
	P57-ROX-012913	1/29/2013		45.92	NE	0.00061	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
	P57-ROX-041113	4/11/2013	40.46 - 65.46	46.29	NE	0.00063	0.00012	0.000073 J	<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
P-58	P58-ROX-102811	10/28/2011	40.21 - 65.21	37.31	NE	0.0011	<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
	P58-ROX-011912	1/19/2012		39.73	NE	0.001	<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
	P58-ROX-011912-D	1/19/2012		39.73	NE	0.00092	<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
	P58-ROX-050712	5/7/2012		40.90	NE	0.00059	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
	P58-ROX-050712-DUP	5/7/2012		40.90	NE	0.00044	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
	P58-ROX-080612	8/6/2012		41.63	NE	0.00086	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
	P58-ROX-080612-DUP	8/6/2012		41.63	NE	0.00098	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
	P58-ROX-110612	11/6/2012		43.09	NE																
	P58-ROX-121012	12/10/2012		43.09	NE	0.00093	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
	P58-ROX-012213	1/22/2013		44.21	NE	0.0011	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
	P58-ROX-041113	4/11/2013	40.21 - 65.21	44.40	NE	0.0015	0.0005	<0.00011	0.0003	0.00019	0.000095	0.000074 J	<0.00011	<0.011	<0.011	<0.0054	<0.0022	<0.0054	<0.011	0.00032	<0.00011
P-59	P59-ROX-102711	10/27/2011	47.91 - 72.91	41.06	NE	0.00077	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
	P59-ROX-011912	1/19/2012		42.88	NE	0.00036	<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
	P59-ROX-011912-DUP	1/19/2012		42.88	NE	0.00037	<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
	P59-ROX-050912	5/9/2012		44.11	NE	0.00022	<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
	P59-ROX-080212	8/2/2012		44.07	NE	0.00042	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
	P59-ROX-110212	11/2/2012		45.98	NE	0.00043	<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
	P59-ROX-110212-DUP	11/2/2012		45.98	NE	0.00042	<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
	P59-ROX-013013	1/30/2013		46.60	NE	0.00047	<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
	P59-ROX-041213	4/12/2013	47.91 - 72.91	46.95	NE	0.00057	0.00013	<0.00011	<0.000054	<0.00011	<0.000054	<0.00011	<0.00011	0.0831 J	<0.011	<0.0054	<0.0022	<0.0054	<0.011	<0.00011	<0.00011
	P59-ROX-041213-DUP	4/12/2013		46.95	NE	0.00058	0.00012	<0.00011	<0.000053	<0.00011	<0.000053	<0.00011	<0.00011	0.0518 J	<0.011	<0.0053	<0.0021	<0.0053	<0.011	<0.00011	<0.00011
P-66	P66-ROX-110111	11/1/2011	34.72 - 59.72	28.92	NE	0.0018	<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
	P66-ROX-051012	5/10/2012		32.48	NE	0.00078	<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
	P66-ROX-080312	8/3/2012		30.51	NE	0.00073	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
	P66-ROX-103112	10/31/2012		34.75	NE	0.00078	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
	P66-ROX-011813	1/18/2013		35.70	NE	0.00074	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
	P66-ROX-041113	4/11/2013	34.72 - 59.72	36.03	NE	0.0011	0.00028	<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
P-74	P74-ROX-103111	10/31/2011	44.43 - 69.43	36.26	NE	0.00033	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
	P74-ROX-011912	1/19/2012		38.77	NE	<0.000095	<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
	P74-ROX-050712	5/7/2012		39.92	NE	<0.0001	<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
	P74-ROX-080612	8/6/2012		40.71	NE	0.00016	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
	P74-ROX-110112	11/1/2012		41.72	NE	0.00023	<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
	P74-ROX-011713	1/17/2013		42.65	NE	0.00019	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
	P74-ROX-041113	4/11/2013	44.43 - 69.43	42.83	NE	<0.0001	<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
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	<0.009	<0.047		<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	<0.0049	<0.0098 UJ		<0.0049	<0.002	<0.0049	<0.0098	<0.0049	<0.0049
	P93A-ROX-050511	5/5/2011		41.88	NE	0.00026 J	<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
	P93A-ROX-081811	8/18/2011		38.86	NE	0.00036	<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
	P93A-ROX-102611	10/26/2011		39.43	NE	0.00024	<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
	P93A-ROX-012012	1/20/2012		41.66	NE	0.00014	<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
	P93A-ROX-050812	5/8/2012		42.75	NE	<0.0001	<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
	P93A-ROX-080912	8/9/2012		43.66	NE	0.00015	<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
	P93A-ROX-110712	11/7/2012		45.00	NE	<0.00022 U	<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
	P93A-ROX-110712-DUP	11/7/2012		45.00	NE	0.00029 B	<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
	P93A-ROX-012313	1/23/2013		45.89	NE	0.00016	<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
	P93A-ROX-012313-DUP	1/23/2013		45.89	NE	0.00014	<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
	P93A-ROX-041113	4/11/2013	48.17 - 63.17	46.29	NE	0.00023	<0.0001	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
	P93A-ROX-041113-DUP	4/11/2013		46.29	NE	0.00021	<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

Sample ID	Dibenzofuran	2,4 Dichlorophenol	Diethyl phthalate	2,4 Dimethylphenol	Dimethyl phthalate	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)
Screening Values (mg/L)	0.007 [3]	0.021 [2]	5.6 [2]	0.14 [2]		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]
P-54-111710	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01
P54-ROX-012411	<0.005	<0.01	<0.002 U	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005	<0.01
P54-ROX-051111	<0.005	<0.01	<0.005 UJ	<0.01	<0.005 UJ	<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
P54-ROX-072411	<0.005	<0.01	<0.005	<0.01	<0.005 UJ	<0.00049 U	<0.005	0.000035 JB	<0.0001	<0.005		0.00004 J	<0.005	<0.0002	0.000026 JB	<0.01
P54-ROX-110311	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
P54-ROX-011712	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.000081 U	<0.01
P54-ROX-050412	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.00085 U	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
P54-ROX-080212	<0.0021	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
P54-ROX-103012	<0.002	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
P54-ROX-011113	<0.0021	<0.011	<0.0053	<0.011	<0.0053 UJ	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
P54-ROX-050313	<0.0022	<0.011	<0.0056	<0.011	<0.0056	<0.0056	<0.0056	<0.00011	<0.00011	<0.0056		<0.00011	<0.0056	<0.00022	<0.00022	<0.011
P55-ROX-103111	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.00065	0.00096	<0.01
P55-ROX-011912	0.00035 J	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.00038	<0.0052		<0.0001	<0.0052	0.0048	0.0076	<0.01
P55-ROX-011912-D	0.00033 J	<0.011	<0.0054	<0.011	<0.0054	<0.0054	<0.0054	<0.00011	0.00032	<0.0054		0.00011	<0.0054	0.0046	0.0076	<0.011
P55-ROX-050912	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	0.00069	<0.0051		<0.0001	<0.0051	0.0118	0.0179	<0.01
P55-ROX-012113	0.001 J	<0.01	<0.01	0.004 J	<0.01	<0.01	<0.01	<0.0001	0.00133	<0.002		<0.0001	<0.01		0.042	<0.01
P55-ROX-012113	0.001 J	<0.01	0.00073 J	0.0024 J	<0.0051	0.00069 J	<0.0051	<0.0001	0.00093	<0.0051		<0.0001	<0.0051	0.0176	0.0254	<0.01
P55-ROX-041513	0.0017 J	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.0013	<0.0052		<0.0001	<0.0052	0.0268	0.0389	<0.01
P56-ROX-102711	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.00039	<0.0052		<0.0001	<0.0052	0.016	0.0224	<0.01
P56-ROX-011912	0.00064 J	<0.01	<0.0051	<0.01	<0.0051	<0.00044 U	<0.0051	<0.0001	0.00046	<0.0051		<0.0001	<0.0051	0.0186	0.024	<0.01
P56-ROX-050812	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.00033	<0.0052		<0.0001	<0.0052	0.0186	0.0236	<0.01
P56-ROX-080612	0.00051 J	<0.01	<0.0014 U	<0.01	<0.0051	<0.00075 U	<0.0051	<0.0001	0.0003	<0.0051		<0.0001	<0.0051	0.0143	0.0178	<0.01
P56-ROX-103112	0.00066 J	<0.01	<0.0051	<0.01 UJ	<0.0051	<0.0051	<0.0051	<0.0001	0.00046	<0.0051		<0.0001	<0.0051	0.024	0.0307	<0.01
P56-ROX-011713	<0.002	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	0.00032	<0.005		<0.0001	<0.005	0.0147	0.0131	<0.01
P56-ROX-041213	<0.0022	<0.011	<0.0055	<0.011	<0.0055	<0.0055	<0.0055	<0.00011	0.00032	<0.0055		<0.00011	<0.0055	0.0208	0.0239	<0.011
P57-ROX-110811	<0.0054	<0.011	<0.0054	<0.011	<0.0054	<0.0054	<0.0054	<0.00054	0.00076	<0.0054		<0.00054	<0.0054	0.0288	0.0388	<0.011
P57-ROX-021312	0.00087 J	<0.01	<0.0051	0.0045 J	<0.0051	<0.00046 U	<0.0051	<0.0001	0.00087	<0.0051		<0.0001	<0.0051		0.0403	<0.01
P57-ROX-050712	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.00045	<0.0052		<0.0001	<0.0052	0.0169	0.0212	<0.01
P57-ROX-080612	0.00079 J	<0.01	<0.00096 U	0.0029 J	<0.005	<0.00087 U	<0.005	<0.0001	0.0006	<0.005		<0.0001	<0.005	0.0244	0.0326	<0.01
P57-ROX-080612-DUP	0.00073 J	<0.01	<0.001 U	0.0029 J	<0.005	<0.00089 U	<0.005	<0.0001	0.00063	<0.005		<0.0001	<0.005	0.0242	0.0321	<0.01
P57-ROX-110512	0.0006 J	<0.01	<0.005	<0.01 UJ	<0.005	<0.005	<0.005	<0.0001	0.00062	<0.005		0.00005 J	<0.005	0.0249	0.0305	<0.01
P57-ROX-012913	<0.0024	<0.012	<0.0059	0.0023 J J	<0.0059	<0.0059	<0.0059	<0.00012	0.00094	<0.0059		<0.00012	<0.0059	0.0369	0.0447	<0.012
P57-ROX-041113	<0.002	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	0.00076	<0.0051		<0.0001	<0.0051	0.0348	0.0453	<0.01
P58-ROX-102811	<0.0049	<0.0097	<0.0049	<0.0097	<0.0049	<0.0049	<0.0049	<0.000097	0.0016	<0.0049		<0.000097	<0.0049	0.049	0.0717	<0.0097
P58-ROX-011912	0.0026 J	<0.011	<0.0053	<0.011	<0.0053	<0.00057 U	<0.0053	0.000047 J	0.0017	<0.0053		<0.00011	<0.0053	0.0639	0.0904	<0.011
P58-ROX-011912-D	0.0023 J	<0.011	<0.0053	<0.011	<0.0053	<0.00059 U	<0.0053	0.000052 J	0.0018	<0.0053		<0.00011	<0.0053	0.0588	0.0821	<0.011
P58-ROX-050712	0.0017 J	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	0.0009 J	<0.0051		<0.0001	<0.0051	0.0351 J	0.0435 J	<0.01
P58-ROX-050712-DUP	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.00067 J	<0.0052		<0.0001	<0.0052	0.0267 J	0.0338 J	<0.01
P58-ROX-080612	0.0022	<0.01	<0.005	<0.01	<0.005	<0.00053 U	<0.005	0.000068 J	0.0014	<0.005		<0.0001	<0.005	0.0524	0.0691	<0.01
P58-ROX-080612-DUP	0.0025	<0.01	<0.005	<0.01	<0.005	<0.00063 U	<0.005	0.000066 J	0.0015	<0.005		<0.0001	<0.005	0.0596	0.079	<0.01
P58-ROX-110612																
P58-ROX-121012	0.002 J	<0.011	<0.0054	<0.011	<0.0054 UJ	<0.0054	<0.0054	<0.00011	0.0014	<0.0054		<0.00011	<0.0054	0.0616	0.0807	<0.011
P58-ROX-012213	0.0038	<0.011	<0.0054	<0.011	<0.0054	<0.0054	<0.0054	0.00024	0.003	<0.0054		0.000072 J	<0.0054	0.068	0.0846	<0.011
P58-ROX-041113	0.0044	<0.011	<0.0054	<0.011	<0.0054	<0.0054	<0.0054	0.00019	0.0022	<0.0054		<0.00011	<0.0054	0.0692	0.0961	<0.011
P59-ROX-102711	<0.0053	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	0.00035	0.0012	<0.0053		<0.00011	<0.0053	0.0121	0.0184	<0.011
P59-ROX-011912	<0.0057	<0.011	<0.0057	0.0133	<0.0057	<0.0005 U	<0.0057	0.000073 J	0.0008	<0.0057		<0.00011	<0.0057	0.0175	0.0279	0.0045 J
P59-ROX-011912-DUP	0.00042 J	<0.01	<0.0051	0.0108	<0.0051	<0.00041 U	<0.0051	0.000073 J	0.00063	<0.0051		<0.0001	<0.0051	0.0178	0.029	<0.01
P59-ROX-050912	<0.005	<0.01	<0.005	0.0085 J	<0.005	<0.005	<0.005	0.000062 J	0.00034	<0.005	0.0056 JN	<0.0001	<0.005	0.0117	0.018	<0.01
P59-ROX-080212	0.00036 J	<0.011	<0.0053	0.0088 J	<0.0053	<0.0053	<0.0053	0.00015	0.00048	<0.0053		<0.00011	<0.0053	0.0136	0.0207	0.0018 J
P59-ROX-110212	0.00031 J	<0.011	<0.0053	0.0102 J J	<0.0053	<0.0053	<0.0053	0.000063 J	0.0005	<0.0053		<0.00011	<0.0053	0.0187	0.0282	0.0065 J
P59-ROX-110212-DUP	0.00029 J	<0.01	<0.0052	0.0092 J J	<0.0052	<0.0052	<0.0052	0.000066 J	0.00048	<0.0052		<0.0001	<0.0052	0.0179	0.0268	0.0056 J
P59-ROX-013013	<0.0021	<0.01	<0.0052	0.0581	<0.0052 UJ	0.0022 J	<0.0052	<0.000079 U	0.00069	<0.0052		<0.0001	<0.0052	0.0222	0.0305	0.154
P59-ROX-041213	<0.0022	<0.011	<0.0054	0.0919	<0.0054	<0.0054	<0.0054	0.000077 J	0.00064	<0.0054		<0.00011	<0.0054	0.0247	0.0369	0.174
P59-ROX-041213-DUP	<0.0021	<0.011	<0.0053	0.0914	<0.0053	<0.0053	<0.0053	0.000078 J	0.00065	<0.0053		<0.00011	<0.0053	0.0265	0.0383	0.154
P66-ROX-110111	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	0.00017	0.003	<0.005		<0.0001	<0.005	0.093	0.0295	<0.01
P66-ROX-051012	0.0018 J	<0.01	<0.005	<0.01	<0.005	0.00054 J	<0.005	0.000056 J	0.0015	<0.005		<0.0001	<0.005	0.0647	0.025	<0.01
P66-ROX-080312	<0.0021	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	0.000082 J	0.0011	<0.0053		<0.00011	<0.0053	0.0541	0.028	<0.011
P66-ROX-103112	0.0019 J	<0.01	<0.005	<0.01 UJ	<0.005	<0.005	<0.005	<0.000051 U	0.0017	<0.005		<0.0001	<0.005	0.0689	0.0268	<0.01
P66-ROX-011813	0.0018 J	<0.011	<0.0053	<0.011	<0.0053 UJ	<0.0053	<0.0053	0.000076 J	0.0019	<0.0053		<0.00011	<0.0053	0.0655	0.0315	<0.011
P66-ROX-041113	0.0025	<0.011	<0.0053	<0.011	<0.0053	<0.0053	<0.0053	0.000072 J	0.0017	<0.0053		<0.00011	<0.0053	0.0681	0.0131	<0.011
P74-ROX-103111	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	0.00044	<0.005		<0.0001	<0.005	0.0177	0.0265	<0.01
P74-ROX-011912	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095
P74-ROX-050712	<0.0052	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.00016 J	<0.00021	<0.01
P74-ROX-080612	<0.002	<0.01	<0.0012 U	0.0039 J	<0.005	<0.00082 U	<0.005	<0.0001	0.00021	<0.005		<0.0001	<0.005	0.009	0.0103	0.0014 J
P74-ROX-110112	0.00031 J	0.001 J	<0.0052	0.008 J J	<0.0052	<0.0052	<0.0052	<0.0001	0.0003	<0.0052		<0.0001	<0.0052	0.0123	0.0136	0.0054 J
P74-ROX-011713	<0.002	<0.01	<0.0051	0.0021 J	<0.0051	<0.0051	<0.0051	0.000038 J	0.00038	<0.0051		<0.0001	<0.0051	0.0156	0.0198	<0.01
P74-ROX-041113	<0.0021	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
P93A-102610	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009		<0.009	<0.009		0.023	<0.009
P93A-ROX_012611	<0.0049	<0.0098	<0.0014 U	<0.0098	<0.0049	<0.0049	<0.0049	<0.0049	0.00032 J	<0.0049		<0.0049	<0.0049		0.0254	<0.0098
P93A-ROX-050511	0.00035 J	<0.01	<0.00073 U	<0.01	<0.005	<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
P93A-ROX-081811	<0.005	<0.01	<0.0029 U	<0.01	<0.005	<0.001 U	<0.005	<0.000033 U	0.00047	<0.005		<0.0001	<0.005	0.0224	0.0302	<0.01
P93A-ROX-102611	<0.005	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	0.00033	<0.005		<0.0001	<0.005	0.0162	0.0258	<0.01
P93A-ROX-012012	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048	<0.00038 U	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	0.0133	0.0188	<0.0095
P93A-ROX-050812	<0.0051	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	0.00021	<0.0051		<0.0001	<0.0051	0.0121	0.0151	<0.01
P93A-ROX-080912	<0.0022	<0.011	<0.0054	<0.011	<0.0054	<0.0054	<0.0054	<0.00011	0.00021	<0.0054		<0.00011	<0.0054	0.0097	0.013	<0.011
P93A-ROX-110712	0.00027 J	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.00029	<0.0052		<0.0001	<0.0052	0.015	0.0194	<0.01
P93A-ROX-110712-DUP	<0.0021	<0.01	<0.0052	<0.01	<0.0052	<0.0052	<0.0052	<0.0001	0.00037	<0.0052		<0.0001	<0.0052	0.016	0.0206	<0.01
P93A-ROX-012313	<0.0021	<0.01	<0.0052 UJ	<0.01	<0.0052 UJ	<0.0052	<0.0052	<0.0001	0.00021	<0.0052		<0.0001	<0.0052	0.0096	0.0093	<0.01
P93A-ROX-012313-DUP	<0.0021	<0.01	<0.0052 UJ	<0.01	<0.0052 UJ	<0.0052	<0.0052	<0.0001	0.00019	<0.0052		<0.0001	<0.0052	0.0094	0.009	<0.01
P93A-ROX-041113	<0.002	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	0.000046 J	0.0003	<0.005		<0.0001	<0.005	0.0146 J	0.0098	<0.01
P93A-ROX-041113-DUP	<0.002	<0.01	<0.005	<0.01	<0.005	<0.005	<0.005	<0.0001	0.00025	<0.005		<0.0001	<0.005	0.0146 J	0.0096	<0.01

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

						SVOCs																														
						Acenaphthene	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)	Dibenz(a,h)anthracene	Dibenzofuran	2,4 Dichlorophenol	Diethyl phthalate	2,4 Dimethylphenol	Dimethyl phthalate	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)
					Screening Values (mg/L)	0.42 [2]	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]		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]
Location	**Sample ID**	**Sample Date**	**Screened Interval (ft btoc)**	**Depth to Water (ft btoc)**	**Product Thickness (ft)**	**ANALYTICAL RESULTS (mg/L)**																														**ANALYTICAL RESULTS (mg/L**
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	<0.047		<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<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	<0.0053	<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	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053		<0.0053	<0.0053		<0.0053	<0.011
	P93B-ROX-050511	5/5/2011		41.96	NE	<0.0001 UJ	<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	<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
	P93B-ROX-081811	8/18/2011		38.91	NE	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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	<0.00077 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	P93B-ROX-102611	10/26/2011		39.48	NE	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	P93B-ROX-012012	1/20/2012		41.72	NE	<0.000095	0.000028 J	<0.00095	<0.000048	<0.000095	<0.000048	<0.000095	<0.000095	<0.0095 UJ	<0.0095	<0.0048	<0.0033 U	<0.0033 U	<0.0095	<0.000095	<0.000095	<0.0048	<0.0095	<0.0048	<0.0095	<0.0048	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095
	P93B-ROX-050812	5/8/2012		42.79	NE	<0.0001	<0.0001	<0.0001	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	P93B-ROX-080912	8/9/2012		43.69	NE	<0.00011	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	<0.0054	<0.011	<0.00051 U	<0.011	<0.0054	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00022	<0.011
	P93B-ROX-110712	11/7/2012		44.98	NE	<0.0001	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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	0.00026	0.00045 B	<0.01
	P93B-ROX-110712-DUP	11/7/2012		44.98	NE	<0.000047 U	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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	0.0003	0.0005 B	<0.01
	P93B-ROX-012313	1/23/2013		45.89	NE	0.00014	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	0.003 J	<0.0053	0.00013	0.00012	0.00058 J		0.00012	<0.0053	<0.00021	0.00012 J	<0.011
	P93B-ROX-041113	4/11/2013		46.32	NE	<0.0001	<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	0.0013 J	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
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	<0.047		<0.009	<0.001 U	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<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	<0.0051	<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	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051		<0.0051	<0.0051		<0.0051	<0.01
	P93C-ROX-050611	5/6/2011		41.84	NE	<0.0001 UJ	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	<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
	P93C-ROX-081811	8/18/2011		38.79	NE	<0.0001	<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	<0.00064 U	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.000033 U	<0.01
	P93C-ROX-102611	10/26/2011		39.36	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	P93C-ROX-012012	1/20/2012		41.57	NE	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	P93C-ROX-050812	5/8/2012		42.68	NE	<0.00011	<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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	P93C-ROX-080912	8/9/2012		43.57	NE	0.000089 J	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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	P93C-ROX-110812	11/8/2012		45.12	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	P93C-ROX-012313	1/23/2013		45.78	NE	<0.00011	<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	0.0025 J	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011
	P93C-ROX-041213	4/12/2013		46.21	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
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	<0.048		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<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	<0.0001 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	<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
	P93D-ROX-081811	8/18/2011		38.94	NE	<0.0001	<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	<0.0011 U	<0.005	<0.000023 U	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.000042 U	<0.01
	P93D-ROX-102711	10/27/2011		39.59	NE	<0.0001	<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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	P93D-ROX-012012	1/20/2012		41.77	NE	<0.00011	<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	<0.0054	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	<0.00022	<0.00006 U	<0.011
	P93D-ROX-050812	5/8/2012		42.96	NE	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		<0.0001	<0.0051	<0.0002	<0.0002	<0.01
	P93D-ROX-080812	8/8/2012		43.71	NE	0.00017	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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0004	<0.00042 U	0.00076 J
	P93D-ROX-110812	11/8/2012		44.98	NE	<0.00011	<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	<0.0055	<0.0055	<0.00011	<0.00011	<0.0055		<0.00011	<0.0055	<0.00022	<0.00022	<0.011
	P93D-ROX-012213	1/22/2013		44.21	NE	<0.00011	<0.00011	<0.00011	<0.00011	<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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00027	0.00036	<0.011
	P93D-ROX-041113	4/11/2013		46.37	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
P-114	P114-ROX-102811	10/28/2011	32.67 - 52.67	24.73	NE	<0.000095	<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	<0.0048	<0.0048	<0.000095	<0.000095	<0.0048		<0.000095	<0.0048	<0.00019	<0.00019	<0.0095
	P114-ROX-012012	1/20/2012		27.17	NE	<0.0001	<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	<0.0051	<0.0051	<0.0001	<0.0001	<0.0051		0.000066 J	<0.0051	<0.0002	<0.0002	<0.01
	P114-ROX-050912	5/9/2012		28.09	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.0002	<0.0002	<0.01
	P114-ROX-080912	8/9/2012		29.13	NE	<0.0001	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	<0.005	<0.005	<0.0001	<0.0001	<0.005		<0.0001	<0.005	<0.0002	<0.0002	<0.01
	P114-ROX-110912	11/9/2012		30.90	NE	<0.0001	<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	<0.0052	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
	P114-ROX-012313	1/23/2013		30.22	NE	<0.00011	<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	0.0024 J	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	<0.00021	<0.011
	P114-ROX-041513	4/15/2013		31.80	NE	<0.0001	<0.0001	<0.0001	<0.000052	<0.0001	<0.000052	<0.0001 UJ	<0.0001 UJ	<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	0.00047 J	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	<0.00021	<0.00021	<0.01
ROST-3-MW	ROST3MW-ROX-012313	1/23/2013	38.18 - 48.18	41.50	NE	0.00025	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	<0.005	<0.005	<0.0001	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0061	0.0087	<0.01
	ROST3MW-ROX-040513	4/5/2013		42.24	NE	0.00016	<0.00011 UJ	<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	<0.0054	<0.011	<0.0054	0.00044 J	<0.0054	<0.00011	0.00017	<0.0054		<0.00011	<0.0054	0.0029	0.0039	<0.011
ROST-3-PZ	ROST3PZ-ROX-051412	5/14/2012	40.00 - 50.00	38.82	NE	0.000023 J	<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	<0.00043 U	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0002 J	0.00017 J	<0.01
	ROST3PZ-ROX-080712	8/7/2012		39.00	NE	<0.00011	<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	0.0049 J	<0.0054	<0.00011	<0.00011	<0.0054		<0.00011	<0.0054	0.00031	0.00038 J	<0.011
	ROST3PZ-ROX-110112	11/1/2012		40.82	NE	<0.00011	<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	0.0017 J	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	0.00028	0.00031	<0.011
ROST-4-PZ(A)[E]	ROST4PZA-ROX-040413	4/4/2013	34.77 - 44.77	41.42	NE																															
ROST-4-PZ(C)	ROST4PZ-C-051412	5/14/2012	34.95 - 44.95	39.04	NE	0.00027	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	<0.00058 U	<0.005	<0.0001	<0.0001	0.00022	<0.005		<0.0001	<0.005	0.0044	0.0049	<0.01
	ROST4PZ-C-ROX-072512	7/25/2012		39.10	NE	0.00039 B	<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	0.0015 J	<0.0053	<0.00041 U	0.00032 B	<0.0053		<0.00011	<0.0053	0.0102	0.0136	<0.011
	ROST4PZC-ROX-102912	10/29/2012		40.75	NE	0.000054 J	<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	0.0018 J	<0.0052	<0.0001	<0.0001	<0.0052		<0.0001	<0.0052	0.0004	0.00041	<0.01
	ROST4PZ(C)-ROX-011113	1/11/2013		41.42	NE	<0.00011	<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	<0.0053	<0.0053	<0.00011	<0.00011	<0.0053		<0.00011	<0.0053	<0.00021	0.000064 J	<0.011
	ROST4PZC-ROX-041013	4/10/2013		42.27	NE	0.000066 J	0.000018 J	0.000033 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	<0.0055	<0.0055	<0.00011	0.000069 J	<0.0055		<0.00011	<0.0055	0.00062	0.000078 J	<0.011
ROST-4-PZ(F)[F]	ROST4PZF-ROX-040413	4/4/2013	34.53 - 44.53	41.03	NE																															
ROST-4-PZ(G)[F]	ROST4PZG-ROX-040413	4/4/2013	34.28 - 44.28	42.03	NE																															
T-12	T12-ROX-102711	10/27/2011	46.46 - 72.46	38.54	NE	0.00079	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	<0.0051	<0.0051	<0.0001	0.0006	<0.0051		<0.0001	<0.0051	0.0264	0.0415	<0.01
	T12-ROX-011912	1/19/2012		41.0	NE	0.00047	<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	<0.00048 U	<0.0056	0.000044 J	0.00043	<0.0056		0.000061 J	<0.0056	0.0158	0.0186	0.00091 J
	T12-ROX-050912	5/9/2012		42.62	NE	0.00032	<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	<0.005	<0.005	<0.0001	0.00024	<0.005		<0.0001	<0.005	0.0164	0.0254	<0.01
	T12-ROX-080212	8/2/2012		41.92	NE	0.00044	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	<0.0054	<0.0054	0.000046 J	0.00029	<0.0054		<0.00011	<0.0054	0.0199	0.0294	0.0021 J
	T12-ROX-110512	11/5/2012		43.91	NE	0.00044	<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	<0.0021	<0.01	<0.005	0.0028 J J	<0.005	<0.005	<0.005	<0.0001	0.00031	<0.005		<0.0001	<0.005	0.0232	0.0354	0.00096 J
	T12-ROX-011813	1/18/2013		44.50	NE	0.0005	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	<0.0053	<0.0053	<0.00011	0.00046	<0.0053		<0.00011	<0.0053	0.0241	0.0322	<0.011
	T12-ROX-041513	4/15/2013		44.99	NE	0.00063	0.00009 J	<0.0001	<0.000051	<0.0001	<0.000051	<0.0001 UJ	<0.0001 UJ	<0.01	<0.01	<0.0051	<0.002	<0.0051	<0.01	<0.0001	<0.0001	0.00048 J	<0.01	<0.0051	<0.01	<0.0051	<0.0051	<0.0051	<0.0001	0.00037	<0.0051		<0.0001	<0.0051	0.0289	0.0444	0.0047 J

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

						SVOCs								
						3 & 4 Methylphenol (m & p Cresol)	3 Nitroaniline	Nitrobenzene	N Nitrosodimethylamine	N Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)						**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)**									
MW-01	MW-1-111110	11/11/2010	43.41 - 58.41	36.91	NE	<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	<0.019	<0.01		<0.01	<0.01	<0.01	<0.01	<0.01
	MW1-ROX-011711	1/17/2011		37.58	NE	<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	<0.013	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.011	<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	<0.011	<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									
	MW1-ROX-011013	1/10/2013		42.59	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000021 U	<0.0052	<0.0001
	MW1-ROX-040913	4/9/2013	49.98 - 59.98	42.55	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
MW-02	MW-2-111010	11/11/2010	47.19 - 62.19	38.12	NE	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	0.0035 J	<0.0095	<0.0048		<0.0048	<0.0095	<0.0048	<0.0048	<0.0048
	MW02-ROX-051011	5/10/2011		39.14	NE	0.0119	<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	0.0193 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	0.0144 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	<0.01	<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	<0.011	<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	<0.01	<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	<0.011	<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	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00011	<0.0054	0.000046 J
	MW2-ROX-011113	1/11/2013		42.94	NE	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	0.000044 J	<0.0056	0.000039 J
	MW2-ROX-040913	4/9/2013	51.32 - 61.32	43.70	NE	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
MW-03	MW-3-111210	11/12/2010	30.98 - 45.98	24.05	NE	<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	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW03-ROX-051011	5/10/2011		24.79	NE	<0.01	<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	<0.0095	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.011 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	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	MW3-ROX-010913	1/9/2013		29.88	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.000068	<0.005 UJ	0.000036 J
	MW3-ROX-040813	4/8/2013	34.67 - 44.67	29.74	NE	<0.011	<0.011	<0.0057	<0.0057	<0.0057	<0.011	<0.000057	<0.0057	<0.00011
MW-04	MW-4-111210	11/12/2010	42.63 - 57.63	35.38	NE	<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	<0.01	<0.01	<0.0052		<0.0052	<0.01	<0.0052	<0.0052	<0.0052
	MW04-ROX-051111	5/11/2011		36.19	NE	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW4-ROX-011612	1/16/2012	46.06 - 56.06	36.00	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.000057	<0.0052	0.000065 J
	MW4-ROX-050312	5/3/2012		37.45	NE	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW4-ROX-011113	1/11/2013		40.20	NE	<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	<0.012	<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									
	MW4-ROX-040913	4/9/2013	46.06 - 56.06	40.90	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000054	0.11	<0.00011
	MW4-ROX-040913-DUP	4/9/2013		40.90	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	0.103	<0.00011
MW-05	MW-5-111210	11/12/2010	31.13 - 46.13	23.32	NE	<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	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW05-ROX-051211	5/12/2011		23.98	NE	<0.011	<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	<0.01	<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	<0.01	<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	<0.011	<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	<0.011	<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	<0.01	<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	<0.01	<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	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW5-ROX-011113	1/11/2013		28.75	NE	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.000048 J	<0.0055	<0.00011
	MW5-ROX-040913	4/9/2013	33.97 - 43.97	29.41	NE	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
MW-06A	MW-6A-110910	11/9/2010	31.98 - 46.98	25.62	NE	<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	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW6A-ROX-051611	5/16/2011		26.10	NE	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.01	<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	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW6A-ROX-011413	1/14/2013		31.00	NE	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	MW6A-ROX-040313	4/3/2013	34.83 - 44.83	31.62	NE	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	0.000084	<0.0053 UJ	0.000053 J

SEE LAST PAGE OF TABLE FOR NOTES

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

						SVOCs								
						3 & 4 Methylphenol (m & p Cresol)	3 Nitroaniline	Nitrobenzene	N Nitrosodimethylamine	N Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)	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)									
MW-06B	MW-6B-111610	11/16/2010	64.05 - 69.05	25.47	NE	<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	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW6B-ROX-011911-DUP	1/19/2011		26.21	NE	<0.01	<0.01	<0.0051		<0.0051	<0.01	<0.0051	<0.0051	<0.0051
	MW6B-ROX-051611	5/16/2011		25.95	NE	<0.0095	<0.0095	<0.0048 UJ	<0.0048	<0.0048	<0.0095	<0.000048 UJ	<0.0048	<0.000095
	MW6B-ROX-051611-DUP	5/16/2011		25.95	NE	<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	<0.011	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.01	<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	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6B-ROX-011713	1/17/2013		31.11	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6B-ROX-040313	4/3/2013	64.05 - 69.05	31.68	NE	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	<0.000054	<0.0054 UJ	<0.00011
MW-06C	MW-6C-111610	11/16/2010	84.95 - 89.95	25.25	NE	<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	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW6C-ROX-051611	5/16/2011		25.76	NE	<0.01	<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	<0.011	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6C-ROX-102412	10/24/2012		27.85	NE	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
	MW6C-ROX-011713	1/17/2013		30.88	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6C-ROX-040313	4/3/2013	84.95 - 89.95	31.41	NE	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	<0.0001
MW-06D	MW-6D-111610	11/16/2010	104.72 - 109.72	25.13	NE	<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	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW6D-ROX-051611	5/16/2011		25.60	NE	<0.011	<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	<0.011	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.01	<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	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW6D-ROX-011713	1/17/2013		30.75	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW6D-ROX-040313	4/3/2013	104.72 - 109.72	31.27	NE	<0.011	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
MW-07	MW-7-111710	11/17/2010	42.92 - 52.92	36.93	NE	<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	<0.02	<0.01		<0.01	<0.01	<0.01	0.032	<0.01
	MW7-ROX-012511	1/25/2011		37.52	NE	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	0.00082 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	0.00078 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	<0.011	<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	<0.01	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.01	<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	<0.012	<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	<0.011	<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		42.21	NE	<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	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.00078	0.0735 J	0.000078 J
	MW7-ROX-041013	4/10/2013	42.92 - 52.92	42.70	NE	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0014	0.147	0.00015
	MW7-ROX-041013-DUP	4/10/2013		42.70	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0015	0.148	0.00016
MW-08	MW-8-111710	11/17/2010	33.60 - 43.60	27.84	NE	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	0.0502	<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	0.0587	<0.011	<0.0057		<0.0057	<0.011	<0.0057	0.171 J	<0.0057
	MW08-ROX-051311	5/13/2011		28.35	NE	0.0243	<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	0.0249	<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	0.0486	<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	0.0423	<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	0.0242	<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	0.0121	<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	0.0657	<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	0.0569	<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	0.0231	<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	0.024	<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	0.0158	<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		33.30	NE	0.102	<0.011	<0.0056	<0.0056 UJ	<0.0056	<0.011	0.00016	0.0997 J	<0.00011
	MW8-ROX-041013	4/10/2013	33.60 - 43.60	33.77	NE	0.084	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00019	0.253 J	0.000042 J

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

						SVOCs								
						3 & 4 Methylphenol (m & p Cresol)	3 Nitroaniline	Nitrobenzene	N Nitrosodimethylamine	N Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)						**0.35** [5]		**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)**									
MW-09	MW-9-111510	11/15/2010	46.45 - 56.45	39.00	NE	<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	<0.011	<0.011	<0.0053		<0.0053	<0.011	<0.0053	<0.0053	<0.0053
	MW09-ROX-050611	5/6/2011		40.12	NE	<0.0097	<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	<0.01 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	<0.01	<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	<0.011	<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	<0.01 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	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW9-ROX-011113	1/11/2013		44.70	NE	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00012	<0.0054	0.000057 J
	MW9-ROX-040913	4/9/2013	46.45 - 56.45	44.67	NE	<0.01 UJ	<0.01 UJ	<0.0052 UJ	<0.0052 UJ	<0.0052 UJ	<0.01 UJ	<0.000052 UJ	<0.0052 UJ	<0.0001 UJ
MW-10	MW-10-111010	11/10/2010	44.43 - 54.43	38.97	NE	<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	<0.01	<0.01	<0.0051		<0.0051	<0.01	<0.0051	<0.0051	<0.0051
	MW10-ROX-012411-DUP	1/24/2011		39.40	NE	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW10-ROX-042811	4/28/2011		40.20	NE	<0.0095	<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	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.000027 U	<0.005 UJ	<0.000044 U
	MW10-ROX-110111	11/1/2011		37.72	NE	<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	<0.011	<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	<0.01	<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	<0.01 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	<0.011	<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									
	MW10-ROX-011013	1/10/2013		44.61	NE	<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		44.61	NE	<0.01	<0.002	<0.004	<0.02	<0.003	<0.004	<0.0001	<0.005	<0.0001
	MW10-ROX-040913	4/9/2013	44.43 - 54.43	44.60	NE	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054	<0.00011
MW-11	MW-11-111710	11/17/2010	41.66 - 51.66	36.39	NE	<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	<0.01	<0.01	<0.0052		<0.0052	<0.01	<0.0052	<0.0052	<0.0052
	MW11-ROX-050611	5/6/2011		37.60	NE	<0.0095	<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	<0.011	<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	<0.011	<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	<0.01	<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	<0.012 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	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	<0.000054	<0.0054 UJ	<0.00011
	MW11-ROX-011013	1/10/2013		42.15	NE	<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
	MW11-ROX-040813	4/8/2013	41.66 - 51.66	42.02	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
MW-12	MW-12-111510	11/15/2010	41.92 - 51.92	36.63	NE	<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	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	MW12-ROX-051211	5/12/2011		37.58	NE	<0.01	<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	<0.01 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	<0.0095	<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	<0.0095	<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	<0.011	<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	<0.011	<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	<0.01	<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	<0.011 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	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
	MW12-ROX-011013	1/10/2013		42.46	NE	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000032 U	<0.0051	<0.0001
	MW12-ROX-040813	4/8/2013	41.92 - 51.92	42.46	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
MW-13	MW13-ROX-012511	1/25/2011	25.57 - 35.57	24.28	NE	<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	<0.0099	<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	<0.01	<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	<0.011	<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	<0.011	<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	<0.01	<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	<0.011	<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	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW13-ROX-012313	1/23/2013		29.26	NE	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	MW13-ROX-041213	4/12/2013	25.57 - 35.57	29.44	NE	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	<0.0051	<0.0001
MW-14	MW14-ROX-110911	11/9/2011	Unknown			<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	MW14-ROX-051012	5/10/2012				<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
	MW14-ROX-080312	8/3/2012		29.87	NE	<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	33.42 - 43.42	32.02	NE	<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		33.05	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	MW14-ROX-041113	4/11/2013	33.42 - 43.42	33.31	NE	<0.011	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0001	<0.0054	0.000053 J
MW-16	MW16-ROX-012313	1/23/2013	37.43 - 47.43	43.05	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000025 J J	<0.0053	<0.00011
	MW16-ROX-040813	4/8/2013	37.43 - 47.43	43.39	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
MW-18 [6]	MW18-ROX-040513	4/5/2013	35.25 - 50.25	42.38	NE									
MW-21 [6]	MW21-ROX-040513	4/5/2013	35.30 - 50.30	43.79	NE									
	MW21-ROX-040513-DUP	4/5/2013		43.79	NE									
MW-22	MW22-ROX-012313	1/23/2013	38.21 - 48.21	41.80	NE	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	0.0349	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0002	0.0122	<0.00011
	MW22-ROX-040513	4/5/2013	38.21 - 48.21	42.23	NE	0.0403	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	0.00019	0.0123 J	<0.00011
MW-24	MW24-ROX-040513	4/5/2013	38.89 - 48.89	43.39	NE	<0.01	<0.01	<0.0052	<0.0052 UJ	<0.0052	<0.01	<0.000052	<0.0052 UJ	0.000066 J

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

						SVOCs								
						(3 & 4 Methylphenol (m & p Cresol)	3 Nitroaniline	Nitrobenzene	N Nitrosodimethylamine	N Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)						**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)**									
P-54	P-54-111710	11/17/2010	38.00 - 63.00	36.43	NE	<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	<0.01	<0.01	<0.005		<0.005	<0.01	<0.005	<0.005	<0.005
	P54-ROX-051111	5/11/2011		37.37	NE	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.011	<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	<0.01	<0.01	<0.0051	<0.0051 UJ	<0.0051	<0.01	<0.000051	<0.0051 UJ	<0.0001
	P54-ROX-011113	1/11/2013		41.56	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000032 J	<0.0053	<0.00011
	P54-ROX-050313	5/3/2013	38.00 - 63.00	41.80	NE	<0.011	<0.011	<0.0056	<0.0056	<0.0056	<0.011	<0.000056	<0.0056	<0.00011
P-55	P55-ROX-103111	10/31/2011	39.82 - 64.82	39.15	NE	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.002	<0.004	<0.02	<0.003	<0.004	0.00211	0.004 J	<0.0001
	P55-ROX-012113	1/21/2013		43.60	NE	0.0018 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0017	0.0034 J	<0.0001
	P55-ROX-041513	4/15/2013	40.85 - 50.85	43.63	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.0021	<0.0052	<0.0001
P-56	P56-ROX-102711	10/27/2011	40.82 - 65.82	39.42	NE	<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	<0.01	<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	<0.01	<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	<0.01	<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	0.0011 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		45.65	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.0012	0.0014 J	<0.0001
	P56-ROX-041213	4/12/2013	40.82 - 65.82	46.12	NE	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.0012	<0.0055	<0.00011
P-57	P57-ROX-110811	11/8/2011	40.46 - 65.46	39.20	NE	<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	<0.01	<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	0.0023 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	0.0013 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	0.0013 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	<0.01	<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	<0.012	<0.012	<0.0059	<0.0059	<0.0059	<0.012	0.00074	<0.0059 UJ	<0.00012
	P57-ROX-041113	4/11/2013	40.46 - 65.46	46.29	NE	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00074	0.146	<0.0001
P-58	P58-ROX-102811	10/28/2011	40.21 - 65.21	37.31	NE	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	0.0171	<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	0.0156	<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	0.0181	<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	0.0122	<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	0.0146	<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	0.0195	<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									
	P58-ROX-121012	12/10/2012		43.09	NE	0.0124	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.00085	0.178	0.00012
	P58-ROX-012213	1/22/2013		44.21	NE	0.0198	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0023	0.208	0.00077
	P58-ROX-041113	4/11/2013	40.21 - 65.21	44.40	NE	0.014	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0021	0.0985	0.00055
P-59	P59-ROX-102711	10/27/2011	47.91 - 72.91	41.06	NE	<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	0.0092 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	0.0076 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	0.0062 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	0.0032 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	0.0137	<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	0.0116	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00073	0.0656 J	0.000093 J
	P59-ROX-013013	1/30/2013		46.60	NE	0.107	<0.01 UJ	<0.0052	<0.0052 UJ	<0.0052	<0.01	0.001	0.141 J	<0.00011 U
	P59-ROX-041213	4/12/2013	47.91 - 72.91	46.95	NE	0.0842	<0.011	<0.0054	<0.0054	<0.0054	<0.011	0.0012	0.119	0.000098 J
	P59-ROX-041213-DUP	4/12/2013		46.95	NE	0.0794	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0012	0.101	0.0001 J
P-66	P66-ROX-110111	11/1/2011	34.72 - 59.72	28.92	NE	<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	<0.01	<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	<0.011	<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	<0.01	<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		35.70	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00082	0.0019 J	0.00011
	P66-ROX-041113	4/11/2013	34.72 - 59.72	36.03	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00091	<0.0053	0.000087 J
P-74	P74-ROX-103111	10/31/2011	44.43 - 69.43	36.26	NE	<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	<0.0095	<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	<0.01	<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	0.001 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	0.002 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		42.65	NE	0.001 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.00023	0.0298	0.000048 J
	P74-ROX-041113	4/11/2013	44.43 - 69.43	42.83	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	0.0046 JB U	<0.0001
P-93A	P93A-102610	10/26/2010	48.17 - 63.17	40.75	NE	<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	0.064	<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	0.0075 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	0.0093 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	<0.01	<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	0.0029 J	<0.0095	<0.0048	<0.0048	<0.0048	<0.0095	<0.00022 U	0.234	<0.000095
	P93A-ROX-050812	5/8/2012		42.75	NE	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	0.00096 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	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	0.00023	0.165	<0.0001
	P93A-ROX-041113	4/11/2013	48.17 - 63.17	46.29	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00035	0.2	0.00004 J
	P93A-ROX-041113-DUP	4/11/2013		46.29	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00024	0.179	<0.0001

SEE LAST PAGE OF TABLE FOR NOTES

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

						SVOCs								
						3 & 4 Methylphenol (m & p Cresol)	3 Nitroaniline	Nitrobenzene	N Nitrosodimethylamine	N Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
					Screening Values (mg/L)	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)									
P-93B	P93B-102610	10/26/2010	74.60 - 76.60	40.73	NE	<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	<0.011	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	<0.01	<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	<0.01	<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	<0.01	<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	<0.0095	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	0.114	<0.0001
	P93B-ROX-012313	1/23/2013		45.89	NE	0.0014 J	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00016	0.176	0.00013
	P93B-ROX-041113	4/11/2013	74.60 - 76.60	46.32	NE	<0.01	<0.01	<0.0051	<0.0051	<0.0051	<0.01	<0.000051	0.122	<0.0001
P-93C	P93C-102610	10/26/2010	94.26 - 96.26	40.69	NE	<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	<0.01	<0.01 UJ	<0.0051		<0.0051	<0.01	<0.0051	0.0166	<0.0051
	P93C-ROX-050611	5/5/2011		41.84	NE	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.011	<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	<0.01	<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	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	<0.00005	<0.005	<0.0001
	P93C-ROX-012313	1/23/2013		45.78	NE	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	P93C-ROX-041213	4/12/2013		46.21	NE	<0.01	<0.01	<0.005	<0.005 UJ	<0.005	<0.01	<0.00005	<0.005	<0.0001
P-93D	P93D-102610	10/26/2010	Unknown	40.59	NE	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.011	<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	<0.01	<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	0.0011 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	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	<0.000055	<0.0055	<0.00011
	P93D-ROX-012213	1/22/2013		44.21	NE	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.000042 J	<0.0053	<0.00011
	P93D-ROX-041113	4/11/2013	125.75 - 127.75	46.37	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	0.0087 B U	<0.0001
P-114	P114-ROX-102811	10/28/2011	32.67 - 52.67	24.73	NE	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.01	<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	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	<0.000053	<0.0053	<0.00011
	P114-ROX-041513	4/15/2013	32.67 - 52.67	31.80	NE	<0.01	<0.01	<0.0052	<0.0052	<0.0052	<0.01	<0.000052	<0.0052	<0.0001
ROST-3-MW	ROST3MW-ROX-012313	1/23/2013	38.18 - 48.18	41.50	NE	<0.01	<0.01	<0.005	<0.005	<0.005	<0.01	0.00068	<0.005	<0.0001
	ROST3MW-ROX-040513	4/5/2013	38.18 - 48.18	42.24	NE	<0.011	<0.011	<0.0054	<0.0054 UJ	<0.0054	<0.011	0.00055	<0.0054 UJ	<0.00011
ROST-3-PZ	ROST3PZ-ROX-051412	5/14/2012	40.00 - 50.00	38.82	NE	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	0.0056 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	0.0019 J	<0.011	<0.0053	<0.0053 UJ	<0.0053	<0.011	<0.000053	<0.0053 UJ	<0.00011
ROST-4-PZ(A)[6]	ROST4PZA-ROX-040413	4/4/2013	34.77 - 44.77	41.42	NE									
ROST-4-PZ(C)	ROST4PZ-C-051412	5/14/2012	34.95 - 44.95	39.04	NE	<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	0.00098 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	<0.01	<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	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.00012	<0.0053	<0.00011
	ROST4PZC-ROX-041013	4/10/2013	34.95 - 44.95	42.27	NE	<0.011	<0.011	<0.0055	<0.0055	<0.0055	<0.011	0.00018	0.0055 B U	<0.00011
ROST-4-PZ(F)[6]	ROST4PZF-ROX-040413	4/4/2013	34.53 - 44.53	41.03	NE									
ROST-4-PZ(G)[6]	ROST4PZG-ROX-040413	4/4/2013	34.28 - 44.28	42.03	NE									
T-12	T12-ROX-102711	10/27/2011	46.46 - 72.46	38.54	NE	<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	<0.011	<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	0.0026 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	0.0027 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	0.0015 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	<0.011	<0.011	<0.0053	<0.0053	<0.0053	<0.011	0.0011	0.0265	0.000067 J
	T12-ROX-041513	4/15/2013	46.46 - 72.46	44.99	NE	0.0042 J	<0.01	<0.0051	<0.0051	<0.0051	<0.01	0.0011	0.0149	0.000063 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 Un t (Chemicals not in TACO, Tier I Tables).
Denotes screening criteria source R2008-018, Proposed Revisions to Groundwater Qual ty 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.
[6] Denotes wells not part of the Interim Groundwater Monitoring Program but split sampled with the IEPA during 2Q13.

	Indicates a historical exceedance or screening criteria.
	Indicates a current exceedance or screening criteria.
R	Indicates current quarter analyte resu t was rejected.
NA	Indicates current quarter analyte resu t was not analyzed.
	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 ca ibration 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:

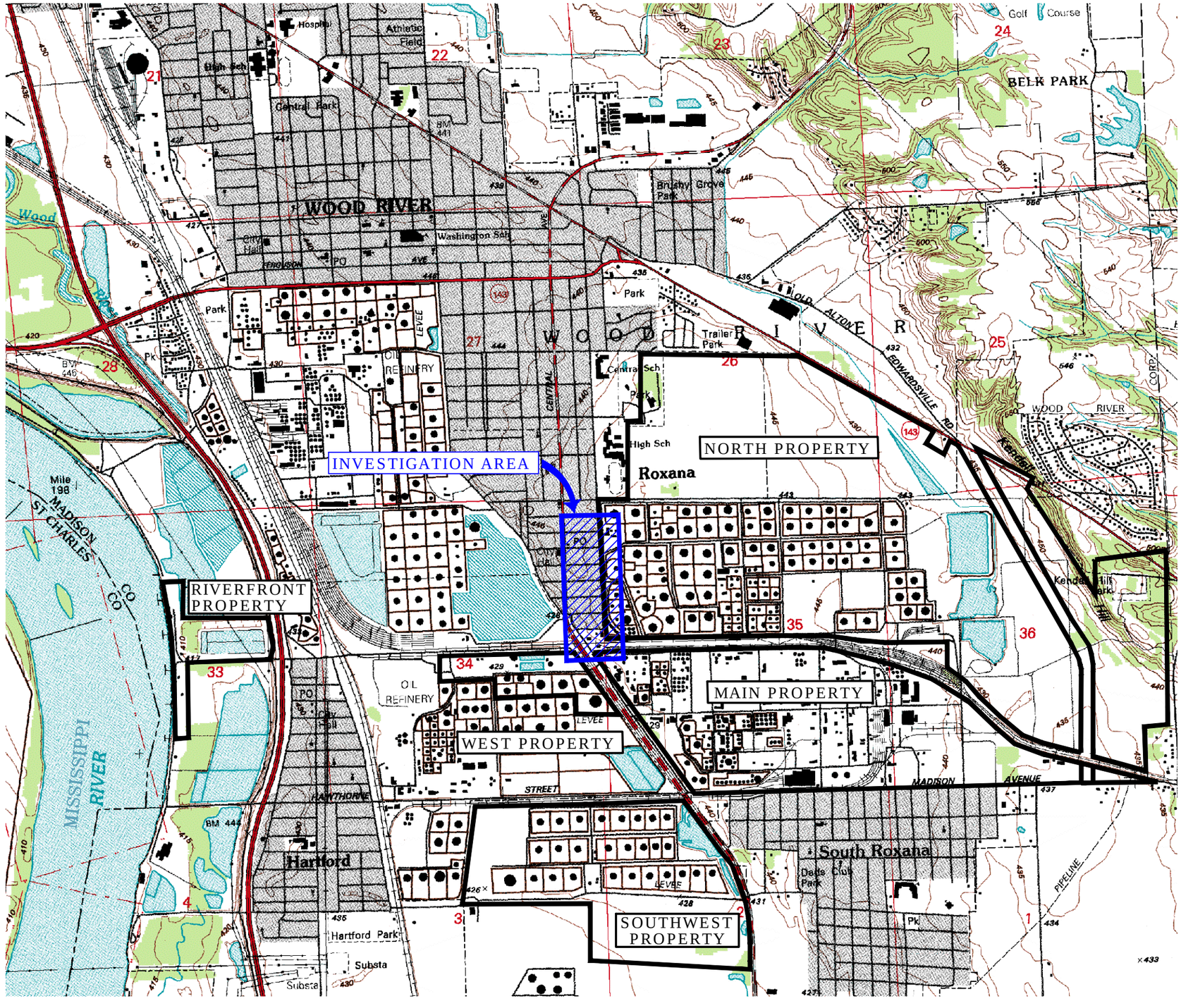
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

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.



PHILLIPS 66 COMPANY
WOOD RIVER REFINERY

SITE VICINITY MAP

Ø 8

APPROXIMATE SCALE MILE

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 July 2013
DSGN. BY: djd
CHKD. BY: kh

2Q13
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\2013\FIGURES\FIG 1 INVESTIGATION AREA LOCATION MAP.DWG Last edited: 05/30/13 @ 12:11 p.m. @ WOD-STLOUIS

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\2Q13\FIGURES\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: JUN. 11, 13 @ 09:54 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 AND MW-22 WERE ADDED TO THE INTERIM GROUNDWATER MONITORING PROGRAM IN 1Q13.
3. GROUNDWATER MONITORING WELL MW-24 WAS INSTALLED DURING 1Q13 AND WAS ADDED TO THE INTERIM GROUNDWATER MONITORING PROGRAM IN 2Q13.
4. GROUNDWATER MONITORING WELLS ROST-4-PZ(A), ROST-4-PZ(F), ROST-4-PZ(G), MW-18, AND MW-21 ARE NOT PART OF THE INTERIM GROUNDWATER MONITORING PROGRAM BUT WERE SPLIT SAMPLED WITH THE IEPA IN 2Q13.
5. GROUNDWATER MONITORING WELLS ROST-3-MW, MW-22, AND MW-24 WERE ALSO SPLIT SAMPLED WITH THE IEPA IN 2Q13.

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
1986 APPROXIMATE BENZENE RELEASE SITE
NORTH PROPERTY
VILLAGE OF ROXANA
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
BP

T-1
PZ-1(101)
PZ-1(85)
MW-9
MW-10
P-55
ROST-4-PZ(A)
ROST-4-PZ(B)
ROST-4-PZ(C)
ROST-4-PZ
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
MW-24
MW-22
* ROST-7-PZ
P-69
A-27
P-70
MW-18
P-74
MW-19
P-59
P-61
* ROST-21-PZ
MW-16
GP-9-PZ
PZ-2(84)
PZ-2(70.5)
* ROST-10-PZ
MW-12
MW-20
P-56
MW-2
MW-1
T-6
MW-21
P-57
MW-4
MW-3
P-93A
P-93B
P-93C
P-93D
P-73
MW-7
MW-5
MW-8
P-58
P-66
P-75
MW-13
MW-6A
MW-6B
MW-6C
MW-6D
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 July 2013 DSGN. BY:lr CHKD. BY:kh	2Q13 Groundwater Monitoring Well Sampling Locations	FIG. NO. 2

NOTES:

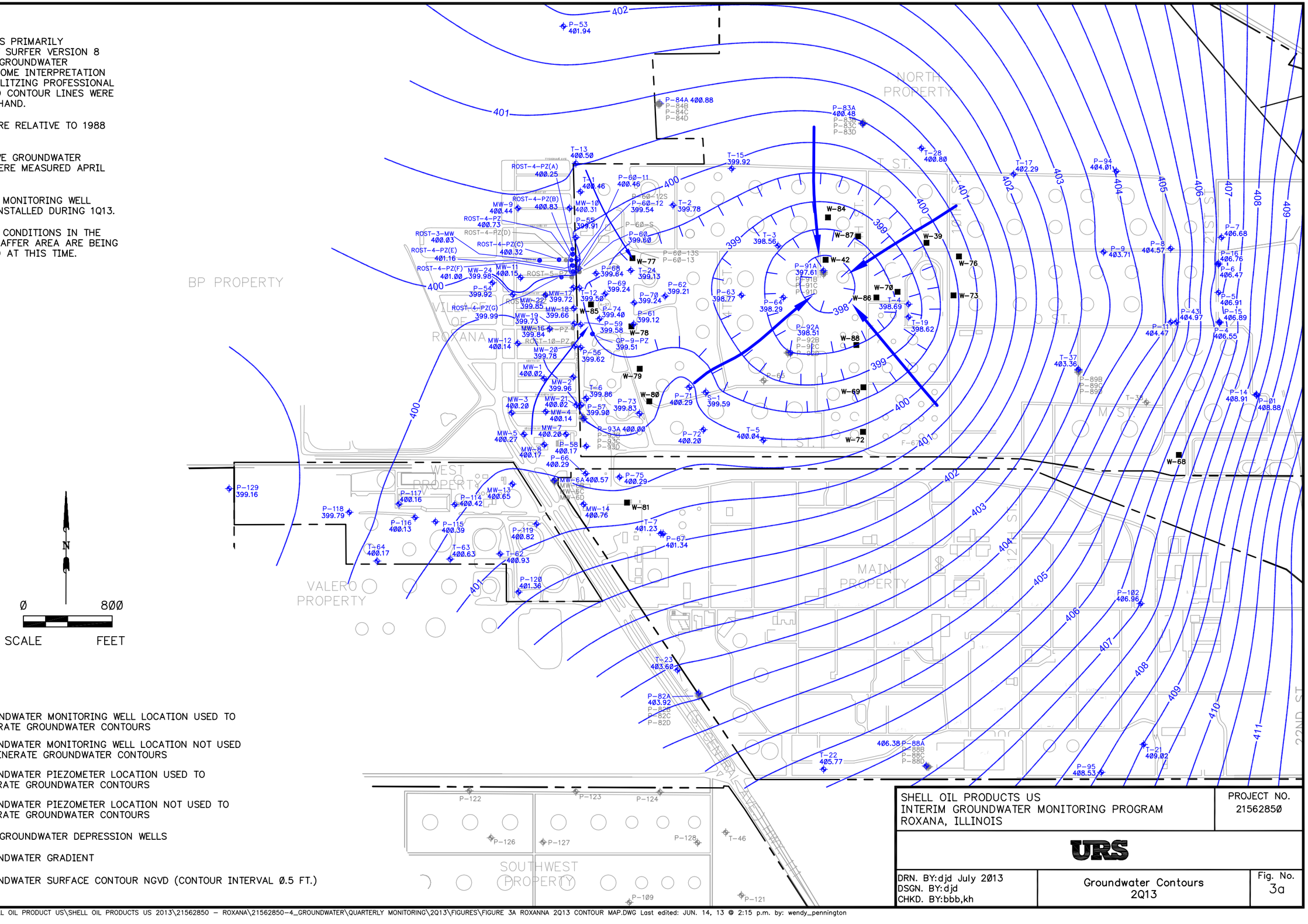
1) CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 8 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILITZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.

2) ELEVATIONS ARE RELATIVE TO 1988 USGS DATUM.

3) COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 1–3, 2Ø13.

4) GROUNDWATER MONITORING WELL MW–24 WAS INSTALLED DURING 1Q13.

5) GROUNDWATER CONDITIONS IN THE THIRD AND CHAFFER AREA ARE BEING RE–EVALUATED AT THIS TIME.



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 Ø.5 FT.)

SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 21562850

URS

DRN. BY:djd July 2Ø13
DSGN. BY:djd
CHKD. BY:bbb,kh

Groundwater Contours 2Q13

Fig. No. 3a

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\2Q13\FIGURES\FIGURE 3A ROXANNA 2Q13 CONTOUR MAP.DWG Last edited: JUN. 14, 13 @ 2:15 p.m. by: wendy_pennington

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\2Q13\FIGURES\FIGURE 3B ROXANNA 2Q13 CONTOUR MAP.DWG Last edited: JUN. 14, 13 @ 2:17 p.m. by: wendy_pennington

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 APRIL 1–3, 2Ø13.

4) GROUNDWATER MONITORING WELL MW–24 WAS INSTALLED DURING 1Q13.

5) GROUNDWATER CONDITIONS IN THE THIRD AND CHAFFER AREA ARE BEING RE–EVALUATED AT THIS TIME.

FIRST ST
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER ST
RAND AVENUE
NORTH PROPERTY
VILLAGE OF ROXANA
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
PUBLIC WORKS YARD
BP
1986 APPROXIMATE BENZENE RELEASE SITE
400

T-1 400.46
PZ-1(101)
PZ-1(85)
MW-9 400.44
MW-10 400.31
ROST-4-PZ(A) 400.25
P-55 399.91
ROST-4-PZ 400.73
ROST-4-PZ(B) 400.83
P-60-11 400.46
ROST-4-PZ(C) 400.32
ROST-4-PZ(D)
P-60-12 399.54
P-60-12S
P-60 399.60
P-60-S
W–77
ROST-3-MW 400.03
ROST-4-PZ(E) 401.16
ROST-4-PZ(F) 401.00
A–28
MW-11 400.15
P-60-13
P-60-13S
P-68 399.64
T-24 399.13
ROST-4-PZ(G) 399.99
ROST-5-PZ
P-54 399.92
MW-17 399.72
MW-22 399.85
T-12 390.50
P-69 399.24
ROST-7-PZ
MW-24 399.98
P-70 399.24
MW-18 399.66
W–85
A–27
P-74 399.40
MW-19 399.73
P-59 399.58
P-61 399.12
W–78
ROST-21-PZ
MW-16 399.84
GP-9-PZ 399.51
PZ-2(84)
PZ-2(70.5)
ROST-10-PZ
MW-12 400.14
MW-20 399.78
P-56 399.62
MW-2 399.96
MW-1 400.02
W–79
T-6 399.86
MW-4 400.14
MW-21 400.02
P-57 399.90
MW-3 400.20
P-93A 400.00
P-93B
P-93C
P-93D
P-73 399.83
MW-7 400.20
MW-5 400.27
MW-8 400.17
P-58 400.17
P-66 400.29
P-75 400.29
MW-13 400.65
400.57 MW-6A
MW-6B
MW-6C
MW-6D
P-114
MW-14 400.76
W–81

Ø 200 SCALE FEET

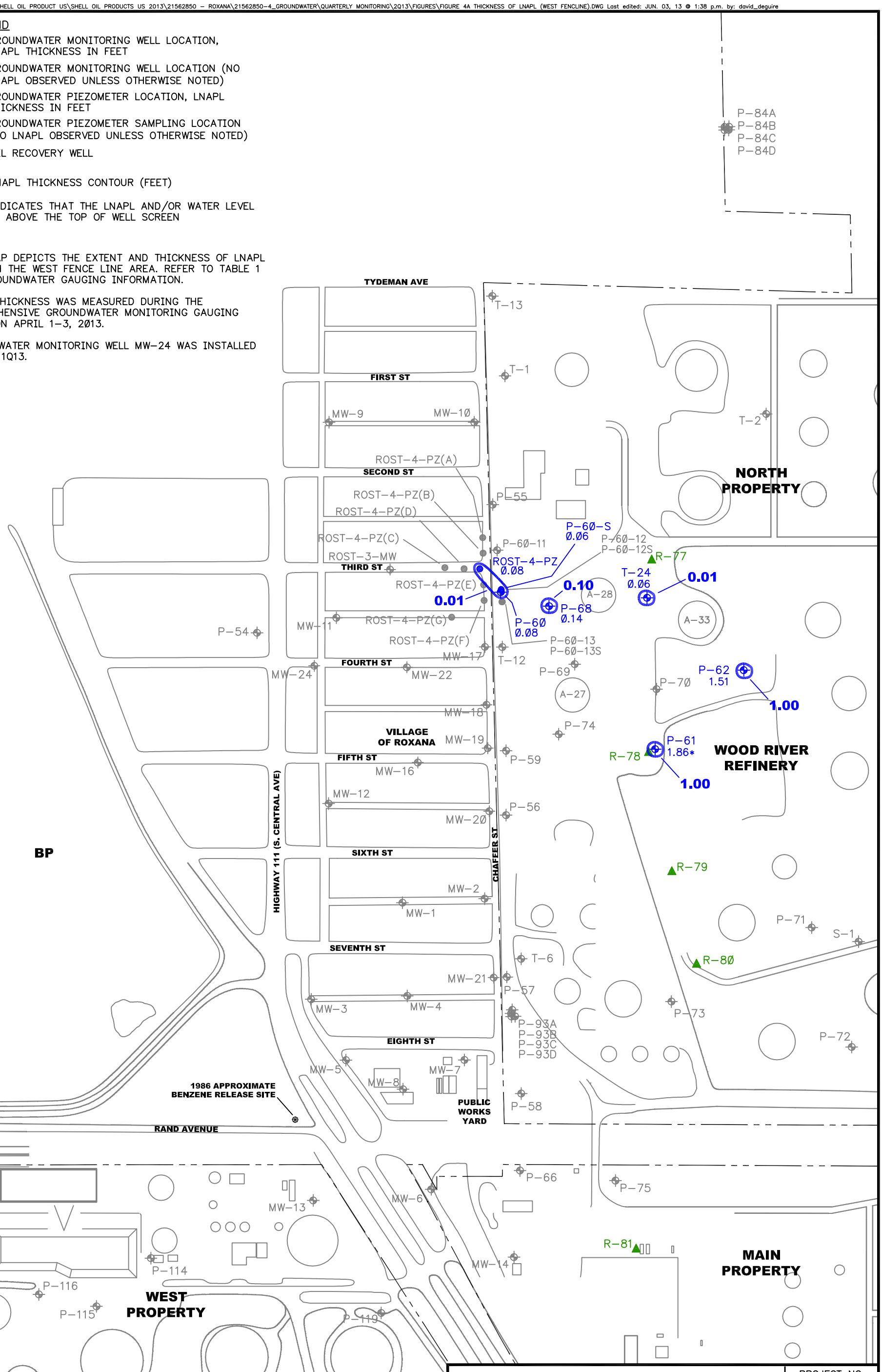
N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY:djd July 2Ø13 DSGN. BY:lr CHKD. BY:kh	Groundwater Contours 2Q13– West Fenceline	FIG. NO. 3b

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 APRIL 1–3, 2013.
3. GROUNDWATER MONITORING WELL MW–24 WAS INSTALLED DURING 1Q13.



SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY: djd July 2013 DSGN. BY: lr CHKD. BY: kh	2Q13 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

NOTES:
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 APRIL 1–3, 2Ø13
3. GROUNDWATER MONITORING WELL MW–24 WAS INSTALLED DURING 1Q13.

NORTH PROPERTY

BP PROPERTY

SHELL OIL COMPANY PROPERTY

WEST PROPERTY

MAIN PROPERTY

VILLAGE OF HARTFORD

VALERO PROPERTY

ILLINOIS TERMINAL RAILROAD

RAND AVE.

T ST. L ST. M ST. O ST. R ST.

4TH ST. 7TH ST. 10TH ST. 12TH ST. 21ST ST. 22ND ST.

ROUTE 1

ROST–4–PZ 0.08
P–60–S 0.06
0.10
R–77
0.01
P–68 0.14
T–24 0.06
1.00
P–62 1.51
P–61 1.86*
1.00
P–60 0.08
R–78
R–79
R–80
R–81
P–67 0.01
0.01
0.10
P–92A 0.12
R–40
R–39
R–42
R–76
R–67
R–73
R–64
R–75
R–69

SCALE Ø 1ØØØ FEET

REFERENCE: SHELL DRAWING E–36137–12

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY: djd July 2013 DSGN. BY: lr CHKD. BY: kh	2Q13 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\2013\FIGURES\FIGURE 4B THICKNESS OF LNAPL (REFINERY).DWG Last edited: JUN. 04, 13 @ 3:60 p.m. by: david_degutre

File: P:\ENVIRONMENTAL\SHELL OIL PRODUCT US\SHELL OIL PRODUCTS US 2013\21562850 – ROXANA\21562850-4_GROUNDWATER\QUARTERLY MONITORING\2Q13\FIGURES\FIGURE 5 2Q13 GROUNDWATER ANALYTICAL RESULTS SUMMARY.DWG Last edited: JUN. 11, 13 @ 09:51 a.m. by: david_deguire

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
Ethylbenzene	0.7
MTBE	0.07
Naphthalene	0.14
Toluene	1
1,3,5-Trimethylbenzene	0.07
Benzo(a)anthracene	0.00013
2-Methylnaphthalene	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., 475/499) 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 INTERIM GROUNDWATER MONITORING PROGRAM IN 1Q13.
7. GROUNDWATER MONITORING WELL MW–24 WAS INSTALLED DURING 1Q13 AND WAS ADDED TO THE INTERIM GROUNDWATER MONITORING PROGRAM IN 2Q13.

Sample Location	P-55
Sampled 4/15/13	Result (mg/L)
Benzene	0.434
2-Methynaphthalene	0.0389

Sample Location	ROST-3-MW
Sampled 4/5/13	Result (mg/L)
Benzene	0.0605

Sample Location	ROST-4-PZ(C)
Sampled 4/10/13	Result (mg/L)
Benzene	0.0153 J

Sample Location	T-12
Sampled 4/15/13	Result (mg/L)
Benzene	1.61
Ethylbenzene	1.03
Naphthalene	0.266 J
2-Methylnaphthalene	0.0444

Sample Location	MW-22
Sampled 4/5/13	Result (mg/L)
Benzene	1.5
Ethylbenzene	2.44
Naphthalene	0.286 J
Toluene	6.14
1,3,5-Trimethylbenzene	0.379 J
2-Methylnaphthalene	0.0413

Sample Location	P-59
Sampled 4/12/13	Result (mg/L)
Benzene	15/13.4
Ethylbenzene	2.85/2.57
Naphthalene	0.664/0.547
2-Methylnaphthalene	0.0369/0.0383
Phenol	0.119/0.101

Sample Location	P-74
Sampled 4/11/13	Result (mg/L)
Benzene	0.144

Sample Location	P-56
Sampled 4/12/13	Result (mg/L)
Benzene	0.131

Sample Location	MW-2
Sampled 4/9/13	Result (mg/L)
Benzene	0.0174
Ethylbenzene	0.91
1,3,5-Trimethylbenzene	0.155

Sample Location	P-57
Sampled 4/11/13	Result (mg/L)
Benzene	141
Ethylbenzene	1.19
2-Methylnaphthalene	0.0453
Phenol	0.146

Sample Location	MW-4
Sampled 4/9/13	Result (mg/L)
Benzene	64.2/72.9
MTBE	0.112/0.125
Phenol	0.11/0.103

Sample Location	P93A	P93B
Sampled 4/11/13	Result (mg/L)	Result (mg/L)
Benzene	120/120	618
Phenol	0.2/0.179	0.122

Sample Location	MW-3
Sampled 4/8/13	Result (mg/L)
Benzene	0.008

Sample Location	MW-7
Sampled 4/10/13	Result (mg/L)
Benzene	475/499
2-Methylnaphthalene	0.0351/0.0357
Phenol	0.147/0.148

Sample Location	P-58
Sampled 4/11/13	Result (mg/L)
Benzene	532
Ethylbenzene	1.28 J
Benzo(a)anthracene	0.0003
2-Methylnaphthalene	0.0961

Sample Location	MW-8
Sampled 4/10/13	Result (mg/L)
Benzene	969
Phenol	0.253 J

Sample Location	MW-13
Sampled 4/12/13	Result (mg/L)
Benzene	0.0102 J

Sample Location	P-66
Sampled 4/11/13	Result (mg/L)
Benzene	0.0444
MTBE	0.086

Sample Location	MW-14
Sampled 4/11/13	Result (mg/L)
Benzene	0.0125 J
Benzo(a)anthracene	0.00013

SCALE 0 200 FEET

SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 21562850

URS

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

2Q13 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\2Q13\FIGURES\FIGURE 6 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: JUN. 11, 13 @ 10:25 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 APRIL 1–3, 2013. 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. 475/499) INDICATE DUPLICATE SAMPLES.
7. GROUNDWATER MONITORING WELLS MW-16 AND MW-22 WERE ADDED TO THE INTERIM GROUNDWATER MONITORING PROGRAM IN 1Q13.
8. GROUNDWATER MONITORING WELLS ROST-4-PZ(A), ROST-4-PZ(F), ROST-4-PZ(G), MW-18, AND MW-21 ARE NOT PART OF THE INTERIM GROUNDWATER MONITORING PROGRAM BUT WERE SPLIT SAMPLED WITH THE IEPA IN 2Q13.
9. GROUNDWATER MONITORING WELLS ROST-3-MW, MW-22, AND MW-24 WERE ALSO SPLIT SAMPLED WITH THE IEPA IN 2Q13.

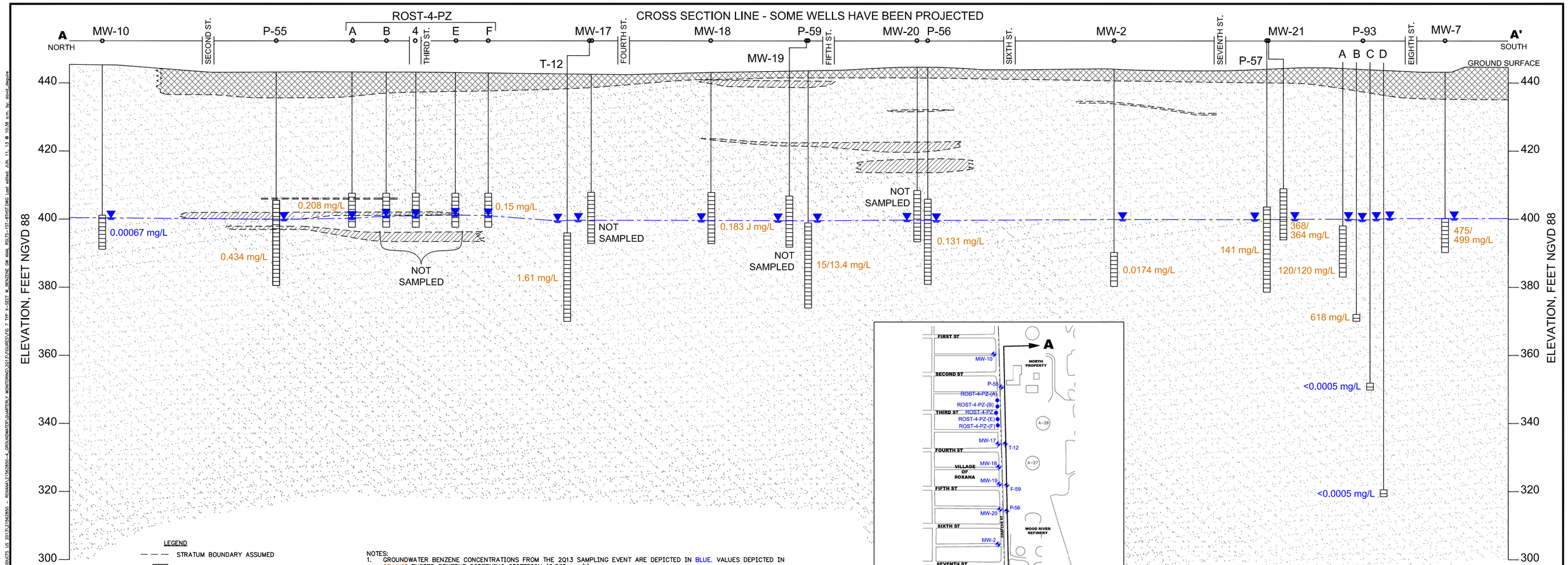
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER ST
RAND AVENUE
VILLAGE OF ROXANA
BP
PUBLIC WORKS YARD
NORTH PROPERTY
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
1986 APPROXIMATE BENZENE RELEASE SITE

MW-9 <0.0005
MW-10 0.00067
P-55 0.434
P-60-11
ROST-4-PZ(A) 0.208
ROST-4-PZ(C) 0.0153J
ROST-3-MW 0.0605
ROST-4-PZ 0.08
ROST-4-PZ(F) 0.15
ROST-4-PZ(G) 0.0228
P-60 0.08
P-60-S 0.06
0.01
0.10
P-68 0.14
A-28
0.01
T-24 0.06
MW-11 0.00065U
P-54 0.0028
MW-17
T-12 1.61
P-69
MW-24 0.0029
MW-22 1.5
0.5
A-27
P-70
MW-18 0.183J
P-59 15/13.4
P-74 0.144
1.00
P-61 1.86*
MW-9
50.0
0.5
MW-16 0.00058U
MW-12 0.00088U
MW-20
P-56 0.131
MW-1 0.0004J
MW-2 0.0174
0.005
0.5
5.0
T-6
MW-3 0.008
MW-4 64.2/72.9
MW-21 368/364
P-57 141
P-93A 120/120
P-93B 618
P-93C <0.0005
P-93D <0.0005
P-73
50.0
500.0
MW-5 0.0018
MW-7 475/499
MW-8 969
P-58 532
1986 APPROXIMATE BENZENE RELEASE SITE
0.005
5.0
0.5
0.05
MW-13 0.0102J
P-66 0.0444
P-75
MW-6A 0.0017
MW-6B 0.00043J
MW-6C 0.00062
MW-6D 0.00055
P-114 <0.0005
MW-14 0.0125J
P-116
P-115

0 200 SCALE FEET

N

SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 21562850
URS	
DRN. BY: djd July 2013 DSGN. BY:nm/lr CHKD. BY:kh	2Q13 Dissolved Phase Benzene Concentrations in Groundwater FIG. NO. 6

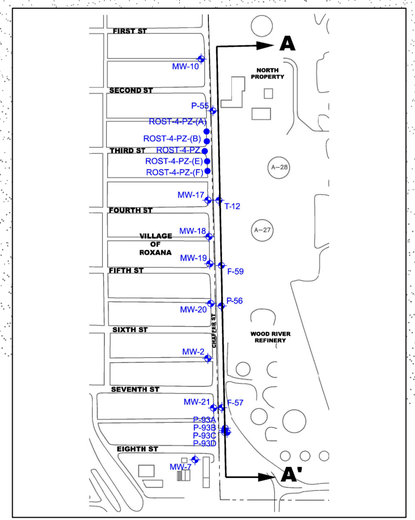


LEGEND

- 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 2Q13 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 APRIL 1-3, 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.



KEYMAP
NOT TO SCALE

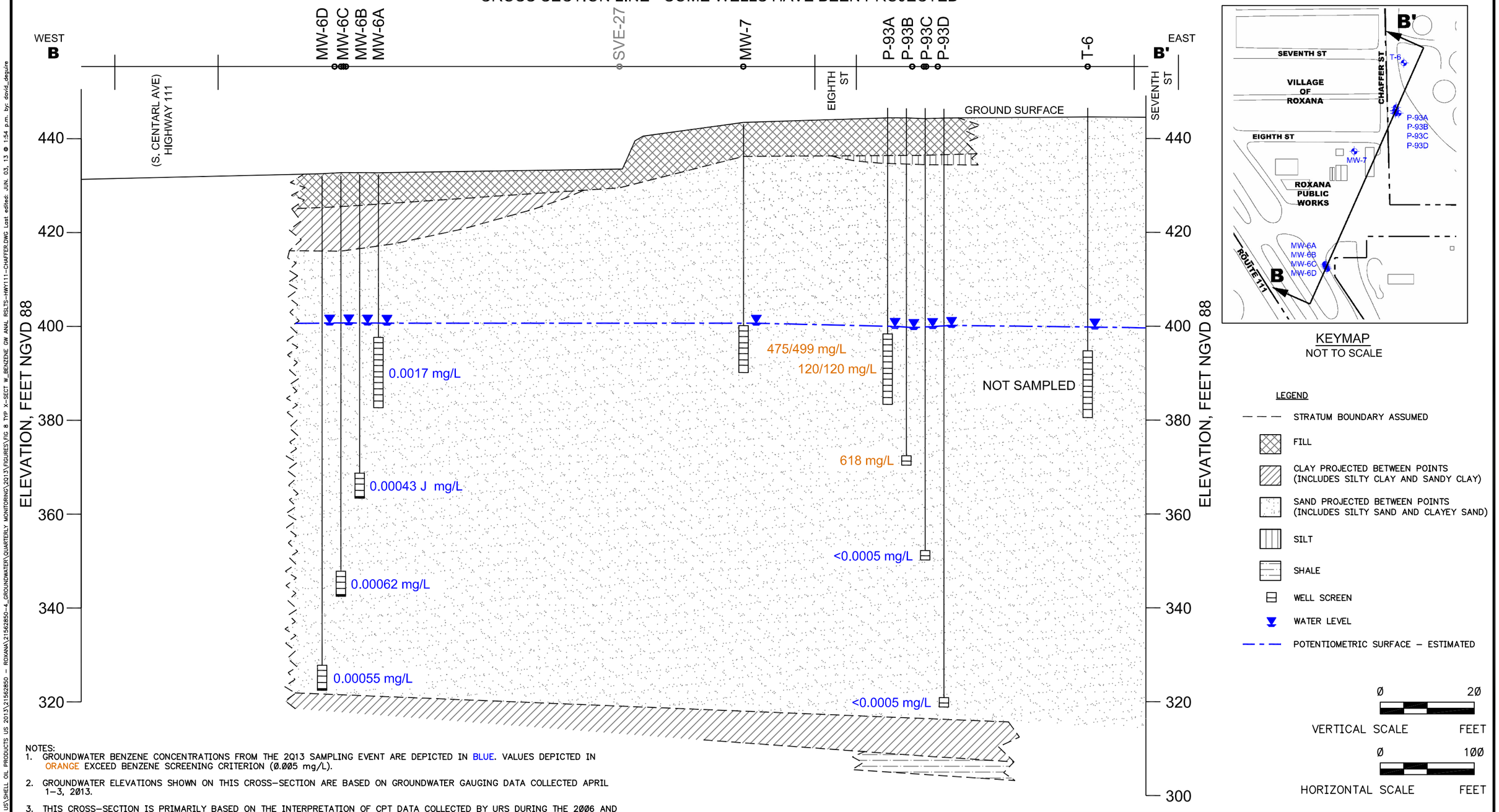
VERTICAL SCALE 0 20 FEET

HORIZONTAL SCALE 0 100 FEET

SHELL OIL PRODUCT US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 21562850
URS		
DRN. BY: djd July 2013 DSGN. BY: lr CHKD. BY: kh	Cross-Section of Benzene 2Q13 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\2013\FIGURES\FIG 7 TYP X-SECT W_BENZENE CW ANAL RESLTS-1ST-8THST.DWG Last edited JUN. 11, 13 @ 10:38 a.m. by: dmcd_degune

CROSS SECTION LINE - SOME WELLS HAVE BEEN PROJECTED



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

VERTICAL SCALE: Ø to 2Ø FEET

HORIZONTAL SCALE: Ø to 1ØØ FEET

NOTES:
1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 2Q13 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 APRIL 1-3, 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 July 2Ø13 DSGN. BY: lr CHKD. BY: tja	Cross-Section of Benzene 2Q13 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\2013\FIGURES\FIG 8 TYP X-SECT W_BENZENE GW ANAL RSLTS-HWY111-CHAFFER.DWG Last edited: JUN. 03, 13 @ 1:54 p.m. by: david_deguire

2.11

LOW FLOW GROUNDWA' SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Manske

DATE: 4-9-13 WEATHER: Cool, windy, 60°

MONITORING WELL ID: MW-1 SAMPLE ID: MW1-ROX-040913

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 58.97 ft
Depth to Water (btoc): 42.52 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 49.98 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 16.45 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) = 54.98 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 ppm
Wellbore PID/FID Reading: 25.9 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1036	42.55	cloudy	hydrocarb.	6.77	18.55	1.087	111.5	0.19	-101
880	1038	42.55	cloudy	hydrocarb.	6.71	18.62	1.092	23.54	0.08	-106
1760	1040	42.55	cloudy	hydrocarb.	6.70	18.67	1.095	24.84	0.04	-111
2640	1043	42.55	cloudy	hydrocarbo.	6.70	18.69	1.096	10.26	0.02	-114
3520	1045	42.55	clear	hydrocarb.	6.70	18.71	1.096	7.389	0.01	-117

Start Time: 1036 Elapsed Time (min): 9 minutes Water Quality Meter ID & SSN: TROLL 9500 - R24729

Stop Time: 1045 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 4-9-13

SAMPLING DATA

Sample Date: 4-9-13 Sample Time: 1050 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: [illegible]

COMMENTS:

Total Purge Volume: 3520 mL

2.12

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathbun, J. Hamster

DATE: 4-9-13 WEATHER: Windy, cloudy 65°

MONITORING WELL ID: MW-2 SAMPLE ID: MW2-Rox-040913

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 60.00 ft
Depth to Water (btoc): 43.70 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 51.32 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 16.30 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) = 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 ppm
Wellbore PID/FID Reading: 129 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1220	43.75	cloudy	strong hydrocarbon	6.66	20.04	1.197	45.02	0.20	-137
900	1222	43.75	cloudy	strong	6.65	20.05	1.203	37.04	0.11	-145
1800	1224	43.75	cloudy	strong	6.65	20.12	1.205	23.77	0.08	-147
2700	1227	43.75	cloudy	strong	6.65	20.15	1.206	16.21	0.05	-150
3600	1229	43.75	clear	hydrocarb.	6.64	20.16	1.206	12.77	0.03	-153
4500	1231	43.75	clear	hydrocarb.	6.64	20.18	1.204	11.09	0.03	-156
5400	1234	43.75	clear	hydrocarb.	6.64	20.19	1.204	11.20	0.02	-157
6300	1236	43.75	clear	hydrocarb.	6.64	20.21	1.204	11.55	0.01	-159

Start Time: 1220 Elapsed Time (min): 16 minutes Water Quality Meter ID & SSN: TROLL 9500 - R24729

Stop Time: 1236 Average Purge Rate (mL/min): 400mL/min Date Calibrated: 4-9-13

SAMPLING DATA

Sample Date: 4-9-13 Sample Time: 1240 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: LAR

COMMENTS:

Total Purge Volume: 6300 mL

1.59

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Mansker

DATE: 4-8-13 WEATHER: Sunny, partly cloudy, cool 60°

MONITORING WELL ID: MW-3 SAMPLE ID: MW3-Rox-040813

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.21 ft
Depth to Water (btoc): 29.74 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.67 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 14.47 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) = 39.67 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 ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1054	29.74	cloudy	hydrocarbon	6.91	20.52	1.124	76.75	0.33	-174
800	1057	29.74	cloudy	hydrocarbo	6.91	20.36	1.123	54.08	0.14	-182
1600	1054	29.74	clear	hydrocarb	6.91	20.35	1.118	24.49	0.09	-189
2400	1101	29.74	clear	—	6.91	20.13	1.108	12.62	0.06	-194
3200	1103	29.77	clear	hydrocarb	6.92	19.96	1.095	6.107	0.04	-199
4000	1105	29.77	clear	hydrocarb	6.92	19.86	1.084	4.236	0.02	-204
4800	1107	29.77	clear	hydrocarb	6.92	19.83	1.078	2.642	0.02	-207

Start Time: 1054
Stop Time: 1107

Elapsed Time (min): 13 minutes
Average Purge Rate (mL/min): 400 mL/min

Water Quality Meter ID & SSN: TROLL 9500 - R24229
Date Calibrated: 4/8/13

SAMPLING DATA

Sample Date: 4-8-13
Sample Time: 1110
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400 mL/min
QA/QCSamples: none
VOA Vials, No Headspace ☒ Initials: JAR

COMMENTS:

Total Purge Volume: 4800 mL

209

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Mansker

DATE: 4-9-13 WEATHER: Cool, windy, 65°

MONITORING WELL ID: MW-4 SAMPLE ID: MW4-Rox-040913

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 55.00 ft
Depth to Water (btoc): 40.90 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 46.06 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 14.10 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) = 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 ppm
Wellbore PID/FID Reading: 140 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: (over 3 readings) +/- 0.2 +/- 0.2 °C +/- 3% <10 or +/- 10% +/- 0.2 mg/L or +/- 10% +/- 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	1400	40.90	very cloudy	hydrocarbon	6.79	19.12	1.317	187.2	0.25	-130
800	1402	40.90	cloudy	hydrocarbon	6.79	19.20	1.312	137.2	0.15	-138
1600	1405	40.90	cloudy	hydrocarbon	6.80	19.35	1.307	87.93	0.09	-143
2400	1408	40.90	cloudy	hydrocarbon	6.80	19.45	1.302	66.51	0.06	-148
3200	1410	40.90	cloudy	hydrocarbon	6.80	19.51	1.297	34.96	0.03	-152
4000	1412	40.90	cloudy	hydrocarbon	6.81	19.60	1.293	25.26	0.02	-155
4800	1414	40.90	cloudy	hydrocarbon	6.81	19.73	—	—	—	—
	Lost flow → Marine battery failure, re-establish flow									
4800	1418	40.90	clear	hydrocarbon	6.85	19.41	1.288	34.14	2.08	-114
5600	1420	40.90	clear	hydrocarbon	6.81	19.70	1.291	23.52	0.39	-125
6400	1423	40.90	clear	hydrocarbon	6.81	19.73	1.289	15.87	0.13	-134
7200	1425	40.90	clear	hydrocarbon	6.81	19.75	1.288	10.91	0.04	-141
8000	1427	40.90	clear	hydrocarbon	6.81	19.69	1.282	10.23	-0.00	-146
8800	1429	40.90	clear	hydrocarbon	6.81	19.74	1.283	8.504	-0.02	-151
					SAR					

Start Time: 1400 Elapsed Time (min): 29 min Water Quality Meter ID & SSN: TROLL 9500 - R24229

Stop Time: 1429 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 4-9-13

SAMPLING DATA

Sample Date: 4-9-13 Sample Time: 1435 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☑ Initials: SAR

COMMENTS:

Total Purge Volume: 8800 mL

1.58

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rothrock, M. Marsker

DATE: 4-9-13 WEATHER: Cool, breezy, 70°, cloudy

MONITORING WELL ID: MW-5 SAMPLE ID: MW5-Rox-040913

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 43.50 ft
Depth to Water (btoc): 29.41 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 33.97 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 14.09 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 ppm
Wellbore PID/FID Reading: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1313	29.41	Yellow	—	6.79	19.54	0.997	84.15	0.07	-150
800	1316	29.41	cloudy	—	6.80	19.56	1.006	45.52	0.04	-155
1600	1318	29.41	cloudy	—	6.79	19.59	1.009	28.24	0.03	-159
2400	1320	29.41	cloudy	—	6.79	19.62	1.009	15.84	0.02	-161
3200	1322	29.41	clear	—	6.79	19.62	1.010	10.84	0.01	-163
4000	1324	29.41	clear	—	6.79	19.64	1.010	8.724	0.00	-166

Start Time: 1313
Stop Time: 1324

Elapsed Time (min): 11 minutes
Average Purge Rate (mL/min): 400mL/min

Water Quality Meter ID & SSN: TROLL 9500 – R24729
Date Calibrated: 4-9-13

SAMPLING DATA

Sample Date: 4-9-13
Sample Time: 1325
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: 4000 mL

200

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathbone, M. Mauskar

DATE: 4/3/2013 WEATHER: Cool, Sunny

MONITORING WELL ID: MW-6A SAMPLE ID: MW6A-ROX-040313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 43.95 ft
Depth to Water (btoc): 31.62 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): 3.21 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) = 38.95 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1040	31.62	cloudy	—	6.84	18.80	836.1	64.67	0.04	-174
1200	1043	31.62	clear	—	6.83	18.81	841.2	36.36	0.02	-189
2400	1046	31.62	clear	—	6.84	18.84	842.6	20.89	0.02	-198
3600	1048	31.62	clear	—	6.84	18.86	844.4	14.54	0.01	-211
4400	1051	31.62	clear	—	6.84	18.93	847.6	13.26	0.00	-224
5200	1053	31.62	clear	—	6.84	18.98	848.3	11.08	-0.00	-236
6000	1055	31.62	clear	—	6.84	18.97	848.6	8.417	-0.00	-246
6800	1057	31.62	clear	—	6.84	18.96	848.2	7.087	-0.01	-255

Start Time: 1040 Elapsed Time (min): 17 minutes Water Quality Meter ID & SSN: TROLL 9500 - R24229

Stop Time: 1057 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 4/3/2013

SAMPLING DATA

Sample Date: 4/3/2013 Sample Time: 1100 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☑ Initials: AA

COMMENTS:

Total Purge Volume: 6800 mL

2.22

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Mansker

DATE: 4-3-2013 WEATHER: Sunny, cool

MONITORING WELL ID: MW-6B SAMPLE ID: MW6B-Rox-040313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 69.05 ft
Depth to Water (btoc): 31.68 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 64.05 ft
Screen Length): 5 ft

Water Column Height (do not include LNAPL or DNAPL): 32.37 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) = 101.55 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: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1129	31.68	clear	hydrocarbon	6.80	18.17	1.545	10.67	0.16	-120
920	1137	31.68	clear	—	6.80	18.18	1.554	6.968	0.10	-124
1840	1137	31.68	clear	—	6.80	18.17	1.552	3.506	0.07	-127
2760	1137	31.68	clear	—	6.80	18.22	1.557	2.523	0.05	-130
3680	1139	31.68	clear	—	6.80	18.21	1.557	1.109	0.04	-132

Start Time: 1129
Stop Time: 1139

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

Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4-3-2013

SAMPLING DATA

Sample Date: 4-3-2013
Sample Method: Bladder Pump / Low Flow
VOA Vials, No Headspace ☑ Initials: AM

Sample Time: 1140
Sample Flow Rate (mL/min): 400 mL/min

Lab Analysis: VOC, SVOC
QA/QCSamples: —

COMMENTS:

Total Purge Volume: 3680 mL

2.38

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Maasker

DATE: 4-3-2013 WEATHER: Sunny, 50°F

MONITORING WELL ID: MW-6C SAMPLE ID: MW6C-Rox-040313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 89.96 ft
Depth to Water (btoc): 31.41 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): 53.54 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) = 82.45 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: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1335	31.41	clear	—	7.20	18.29	1.041	59.62	0.27	-166
1,040	1337	31.41	clear	—	7.36	18.31	1.047	26.70	0.15	-174
2,080	1340	31.41	clear	—	7.50	18.31	1.051	11.84	0.10	-174
3,120	1343	31.41	clear	—	7.61	18.38	1.052	5.567	0.07	-177
4,160	1346	31.41	clear	—	7.70	18.38	1.051	4.908	0.05	-178

Start Time: 1335
Stop Time: 1346
Elapsed Time (min): 11 minutes
Average Purge Rate (mL/min): 400 mL/min
Water Quality Meter ID & SSN: TROLL 9500 - RA4229
Date Calibrated: 4-3-2013

SAMPLING DATA

Sample Date: 4-3-2013
Sample Time: 1350
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400 mL/min
QA/QCSamples: none
VOA Vials, No Headspace ☒ Initials: LRR

COMMENTS:

Total Purge Volume: 4160 mL

255

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Mauskar

DATE: 4-3-13 WEATHER: Sunny, 50°

MONITORING WELL ID: MW-6D SAMPLE ID: MW6D-Rox-040313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 110.05 ft
Depth to Water (btoc): 31.27 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): 73.45 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) = 102.22 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: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	31.27	cloudy	gasoline	8.59	18.20	1.131	137.9	0.14	-179
Loss of Flow										
0	1458	31.27	cloudy	hydrocarbon	8.15	18.29	1.124	691.5	0.41	-150
1200	1501	31.27	cloudy	—	8.23	18.32	1.136	600.9	0.15	-154
2400	1505	31.27	cloudy	—	8.25	18.25	1.137	383.6	0.08	-158
3600	1507	31.27	cloudy	—	8.27	18.21	1.136	151.1	0.05	-161
4800	1510	31.27	cloudy	—	8.27	18.18	1.134	76.50	0.04	-164
6000	1513	31.27	cloudy	—	8.27	18.20	1.133	46.47	0.02	-166
7200	1516	31.27	cloudy	—	8.28	18.20	1.131	22.40	0.02	-168
8400	1519	31.27	clear	—	8.27	18.24	1.133	11.27	0.01	-169
9600	1522	31.27	clear	—	8.27	18.22	1.132	10.43	0.01	-171
10800	1526	31.27	clear	—	8.27	18.20	1.131	7.925	0.00	-172

Start Time: 1458 Elapsed Time (min): 28 minutes Water Quality Meter ID & SSN: TROLL 9500 – R24229

Stop Time: 1526 Average Purge Rate (mL/min): 400 mL Date Calibrated: 4-3-13

SAMPLING DATA

Sample Date: 4-3-13 Sample Time: 1530 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace: ☒ Initials: LAR

COMMENTS:

Total Purge Volume: 10800 mL

204

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathrock, M. Manstein

DATE: 4-10-13 WEATHER: Cool, cloudy, drizzle 60°

MONITORING WELL ID: MW-7 SAMPLE ID: MW7-Rox-041013

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.88 ft
Depth to Water (btoc): 42.70 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): 10.18 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: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1056	42.70	—	hydrocarbon	6.87	19.29	1.121	29.68	0.26	-142
800	1059	42.70	—	hydrocarbon	6.87	19.27	1.125	16.53	0.15	-145
1600	1101	42.70	—	hydrocarbon	6.86	19.26	1.123	11.60	0.11	-147
2400	1103	42.70	—	hydrocarbon	6.86	19.31	1.123	5.583	0.08	-150
3200	1106	42.70	—	hydrocarbon	6.86	19.35	1.123	3.366	0.07	-148

Start Time: 1056
Stop Time: 1106

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

Water Quality Meter ID & SSN: TROLL 9500 - A24229
Date Calibrated: 4-10-13

SAMPLING DATA

Sample Date: 4-10-13
Sample Time: 1110
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400 mL/min
QA/QCSamples: Dup
VOA Vials, No Headspace ☒ Initials: LAR

COMMENTS:

Total Purge Volume: 3200 mL

1.57

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L Rathnow, M. Monsker

DATE: 4-10-13 WEATHER: Cool, mostly cloudy 65°

MONITORING WELL ID: MW-8 SAMPLE ID: MW8-ROX-041013

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 43.45 ft
Depth to Water (btoc): 33.77 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 33.60 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 9.68 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) = 38.60 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: 0.5 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1314	33.80	clear	hydrocarbon	6.52	19.53	0.9249	23.88	0.18	-104
800	1316	33.80	clear	Hydrocarbon	6.51	19.53	0.9078	39.67	0.12	-105
1600	1318	33.80	clear	Hydrocarbon	6.50	19.59	0.8981	31.90	0.10	-113
2400	1321	33.80	clear	Hydrocarbon	6.50	19.62	0.8924	20.92	0.08	-117
3200	1323	33.80	clear	Hydrocarbon	6.50	19.65	0.8926	14.48	0.07	-120
4000	1325	33.80	clear	Hydrocarbon	6.50	19.65	0.8919	10.25	0.05	-122
4800	1327	33.80	clear	Hydrocarbon	6.50	19.71	0.8896	7.194	0.05	-124

Start Time: 1314 Elapsed Time (min): 13 minutes Water Quality Meter ID & SSN: TROLL 9500 - R24229

Stop Time: 1327 Average Purge Rate (mL/min): 400mL/min Date Calibrated: 4-10-13

SAMPLING DATA

Sample Date: 4-10-13 Sample Time: 1330 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: LAR

COMMENTS:

Total Purge Volume: 4800 mL

2.09

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L Rathmann, M. Manstein

DATE: 4-9-13 WEATHER: Cloudy, cool 60°

MONITORING WELL ID: MW-9 SAMPLE ID: MW9-Rox-040913

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 55.80 ft
Depth to Water (btoc): 44.67 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 46.45 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 11.13 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) = 51.45 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: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

STABLE: (over 3 readings) +/- 0.2 +/- 0.2 °C +/- 3% <10 or +/- 10% +/- 0.2 mg/L or +/- 10% +/- 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	0941	44.70	cloudy	—	6.72	17.79	1.146	82.24	0.64	-100
880	0943	44.70	cloudy	—	6.69	17.73	1.141	53.33	0.19	-107
1760	0946	44.70	cloudy	—	6.69	17.80	1.136	35.65	0.09	-112
2640	0948	44.70	cloudy	—	6.69	17.86	1.133	24.05	0.05	-115
3520	0950	44.70	cloudy	—	6.69	17.94	1.131	18.72	0.03	-118
4400	0952	44.70	cloudy	—	6.69	17.96	1.129	17.28	0.01	-120
5280	0955	44.70	cloudy	—	6.69	18.01	1.127	11.46	0.00	-122
6160	0957	44.70	cloudy	—	6.69	18.01	1.126	9.608	-0.00	-125

Start Time: 0941 Elapsed Time (min): 16 minutes Water Quality Meter ID & SSN: TROLL 9500 - R24229

Stop Time: 0957 Average Purge Rate (mL/min): 406 mL/min Date Calibrated: 4-9-13

SAMPLING DATA

Sample Date: 4-9-13 Sample Time: 1000 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☒ Initials: [illegible]

COMMENTS:

Total Purge Volume: 6160 mL

2.05

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L Rathnow, M. Manske

DATE: 4-9-13 WEATHER: Cool, cloudy

MONITORING WELL ID: MW-10 SAMPLE ID: MW10-Rox-040913

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 54.42 ft
Depth to Water (btoc): 44.60 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): 9.82 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) = 49.43 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 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	0832	44.64	cloudy	—	6.78	18.58	1.197	5831	0.15	-193
800	0834	44.64	cloudy	—	6.78	18.68	1.201	4457	0.08	-205
1600	0837	44.64	cloudy	—	6.78	18.72	1.202	2719	0.06	-216
2400	0840	44.64	cloudy	—	6.78	18.78	1.204	2055	0.05	-227
3200	0842	44.64	cloudy	—	6.78	18.81	1.207	1601	0.04	-234
4000	0844	44.64	cloudy	—	6.78	18.83	1.208	1108	0.03	-246
4800	0847	44.64	cloudy	—	6.78	18.84	1.210	1143	0.02	-253
5600	0849	44.64	cloudy	—	6.78	18.85	1.210	810	0.02	-260

Start Time: 0832 Elapsed Time (min): 17 minutes Water Quality Meter ID & SSN: TROLL 9500 - R24229

Stop Time: 0849 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 4-9-13

SAMPLING DATA

Sample Date: 4-9-13 Sample Time: 0850 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400 mL/min QA/QCSamples: EB 0910

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 5600 mL

2.04

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathman, M. Manskar

DATE: 4-8-13 WEATHER: Cloudy, 70°, breezy

MONITORING WELL ID: MW-11 SAMPLE ID: MW11-Rox-040813

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 51.63 ft
Depth to Water (btoc): 42.02 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): 9.61 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) = 46.66 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1425	42.05	cloudy	—	6.74	18.11	1.322	67.95	0.10	-263
800	1427	42.05	cloudy	—	6.74	18.03	1.319	34.71	0.05	-282
1600	1430	42.05	cloudy	—	6.75	18.09	1.316	17.84	0.03	-294
2400	1432	42.05	clear	—	6.75	18.09	1.314	9.581	0.02	-304
3200	1435	42.05	clear	—	6.75	18.16	1.313	5.579	0.01	-310

Start Time: 1425
Stop Time: 1435

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

Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4-8-13

SAMPLING DATA

Sample Date: 4-8-13
Sample Time: 1440
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400 mL/min
QA/QCSamples: —
VOA Vials, No Headspace ☑ Initials: [illegible]

COMMENTS:

Total Purge Volume: 3200 mL

2.04

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathbrow, M. Manster

DATE: 4-8-13 WEATHER: Sunny, warm 65°

MONITORING WELL ID: MW-12 SAMPLE ID: MW12-Rox-040813

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.18 ft
Depth to Water (btoc): 42.31 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 41.92 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 9.77 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) = 46.92 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: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1259	42.35	cloudy	—	6.88	20.56	1.022	16.27	0.27	-137
800	1301	42.35	clear	—	6.90	19.84	1.007	8.793	0.16	-168
1600	1304	42.35	clear	—	6.88	19.56	0.9935	5.319	0.11	-211
2400	1306	42.35	clear	—	6.87	19.33	0.9811	3.513	0.10	-245
3200	1308	42.35	clear	—	6.87	19.15	0.9715	2.228	0.09	-265
4000	1310	42.35	clear	—	6.86	19.23	0.9633	1.262	0.09	-280
4800	1312	42.35	clear	—	6.86	19.24	0.9582	1.009	0.09	-283

Start Time: 1259
Stop Time: 1312

Elapsed Time (min): 13 minutes
Average Purge Rate (mL/min): 400mL/min

Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4-8-13

SAMPLING DATA

Sample Date: 4-8-13
Sample Time: 1315
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400mL/min
QA/QCSamples: MS/MSD
VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 4800 mL

1.50

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow M. Manske

DATE: 04-12-13 WEATHER: Cold, sunny

MONITORING WELL ID: MW-13 SAMPLE ID: MW13-Rox-041213

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 35.82 ft
Depth to Water (btoc): 29.44 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): 6.38 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) = 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: ~~0.2~~ 0.0 ppm
Wellbore PID/FID Reading: 0.2 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	29.47	cloudy	hydrocarb.	6.61	18.84	1.261	41.70	0.14	-145
700	0909	29.47	clear	hydrocarb.	6.60	19.30	1.266	17.16	0.06	-147
1400	0911	29.47	clear	hydrocarb.	6.60	19.55	1.266	10.02	0.03	-149
2100	0913	29.47	clear	hydrocarb.	6.60	19.59	1.261	5.47	0.01	-150
2800	0916	29.47	clear	hydrocarb.	6.60	19.64	1.260	3.55	0.00	-151
3500	0918	29.47	clear	hydrocarb.	6.60	19.69	1.260	2.35	-0.01	-152

Start Time: 0907 Elapsed Time (min): 11 minutes Water Quality Meter ID & SSN: TROLL 9500 - A24229

Stop Time: 0918 Average Purge Rate (mL/min): 400mL/min Date Calibrated: 4-12-13

SAMPLING DATA

Sample Date: 04-12-13 Sample Time: 0920 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400mL/min QA/QCSamples: EB - 0940

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 3500 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW | PROJECT NUMBER: 21562850.03002 | FIELD PERSONNEL: L. Rathnow, B. Lehan

DATE: 4/11/13 | WEATHER: overcast, 45°F

MONITORING WELL ID: MW-14 | SAMPLE ID: MW14-ROX-041113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.00 ft
Depth to Water (btoc): ~~33.30~~ ft
33.31 →
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 33.42 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 10.69 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) = 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: 46.00 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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~~	~~1011~~	~~33.35~~								
0	1012	33.35	clear		6.47	18.37	1.119	20.52	0.23	-114
800	1014	33.35	clear		6.47	18.76	1.129	14.90	0.13	-119
1600	1016	33.35	clear		6.48	18.95	1.134	12.19	0.09	-123
2400	1018	33.35	clear		6.48	19.03	1.136	8.447	0.05	-126
3200	1020	33.35	clear		6.48	19.09	1.138	5.687	0.03	-129

Start Time: 1012 | Elapsed Time (min): 8 | Water Quality Meter ID & SSN: TROLL 9500 -- R24229

Stop Time: 1020 | Average Purge Rate (mL/min): 400 | Date Calibrated: 4/11/13

SAMPLING DATA

Sample Date: 4/11/13 | Sample Time: 1025 | Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☒ Initials: [illegible]

COMMENTS:

Total Purge Volume: 3200 mL

2.03

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathbone, M. Manstein

DATE: 4-8-13 WEATHER: Cool, cloudy 60°

MONITORING WELL ID: MW-16 SAMPLE ID: MW16-Rox-040813

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 47.43 ft
Depth to Water (btoc): 43.39 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 37.43 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 4.04 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) = 42.43 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: 8 ppm
Wellbore PID/FID Reading: ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	0942	43.47	clear	—	6.56	18.84	0.8166	22.46	0.33	-189
800	0945	43.47	clear	—	6.56	19.06	0.8181	16.12	0.19	-203
1600	0947	43.47	clear	—	6.56	19.18	0.8191	10.19	0.12	-219
2400	0949	43.47	clear	—	6.56	19.23	0.8194	5.549	0.09	-236
3200	0952	43.47	clear	—	6.56	19.39	0.8225	4.045	0.07	-249
4000	0955	43.47	clear	—	6.56	19.51	0.8241	2.473	0.06	-258
4800	0957	43.47	clear	—	6.56	19.51	0.8245	1.769	0.05	-271
5600	0959	43.47	clear	—	6.56	19.54	0.8253	1.310	0.04	-279
6400	1001	43.74	clear	—	6.57	19.56	0.8261	0.9591	0.03	-288

Start Time: 0942 Elapsed Time (min): 19min Water Quality Meter ID & SSN: TROLL 9500 – R24229

Stop Time: 1001 Average Purge Rate (mL/min): 400mL/min Date Calibrated: 4-8-13

SAMPLING DATA

Sample Date: 4-8-13 Sample Time: 1005 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400mL/min QA/QCSamples: EB 1030

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 6400 mL

200

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathrock, M. Manske

DATE: 4-5-2013 WEATHER: Cool, hazy, sunny

MONITORING WELL ID: MW-18 SAMPLE ID: MW18-Rox-040513

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 50.25 ft
Depth to Water (btoc): 42.31 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 35.25 ft
Screen Length): 15 ft

Water Column Height (do not include LNAPL or DNAPL): 7.94 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) = 43.05 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	0901	42.37	cloudy	—	6.66	18.96	1.254	33.90	0.08	-229
800	0904	42.37	cloudy	—	6.65	19.35	1.274	33.75	0.06	-245
1600	0906	42.37	clear	hydrocarbon	6.65	19.22	1.282	32.74	0.05	-255
2400	0908	42.37	clear	hydrocarbon	6.64	19.37	1.309	32.03	0.04	-269
3200	0911	42.37	clear	hydrocarbon	6.64	19.57	1.319	31.93	0.03	-274

Start Time: 0901 Elapsed Time (min): 10 minutes Water Quality Meter ID & SSN: TROLL 9500 – R24229

Stop Time: 0911 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 4-5-13

SAMPLING DATA

Sample Date: 4-5-13 Sample Time: 0915 Lab Analysis: VOC, ~~SVOC~~

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

VOA Vials, No Headspace ☒ Initials:

COMMENTS: Split Sample with IEPA for VOCs only

Total Purge Volume: 3200 mL

202

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathaus, M. Monsterleer

DATE: 4-5-13 WEATHER: Cool, sunny, 55°

MONITORING WELL ID: MW-21 SAMPLE ID: MW21-Rox-040513

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 50.30 ft
Depth to Water (btoc): 43.73 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 35.30 ft
Screen Length): 15 ft

Water Column Height (do not include LNAPL or DNAPL): 6.57 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) = 46.05 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: (over 3 readings) +/- 0.2 +/- 0.2 °C +/- 3% <10 or +/- 10% +/- 0.2 mg/L or +/- 10% +/- 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	0953	43.77	Yellow	Hydrocarbon	6.67	19.51	0.9856	59.39	0.24	-168
800	0955	43.77	Yellow	Hydrocarbon	6.67	19.94	1.000	37.76	0.14	-185
1600	0957	43.77	Hazy	Hydrocarbon	6.66	20.14	1.013	22.52	0.10	-202
2400	0959	43.77	clear	Hydrocarbon	6.66	20.31	1.020	12.85	0.08	-225
3200	1001	43.77	clear	Hydrocarbon	6.66	20.35	1.022	7.967	0.06	-245
4000	1003	43.77	clear	Hydrocarbon	6.66	20.43	1.027	4.927	0.05	-262
4800	1006	43.77	clear	Hydrocarbon	6.66	20.53	1.029	3.683	0.04	-273
	1008	43.77	clear	Hydrocarbon	6.66	20.56	1.031	3.004	0.04	-278

Start Time: 0953 Elapsed Time (min): 15 min Water Quality Meter ID & SSN: TROLL 9500 – A24229

Stop Time: 1008 Average Purge Rate (mL/min): 400mL/min Date Calibrated: 4-5-2013

SAMPLING DATA

Sample Date: 4-5-2013 Sample Time: 1010 Lab Analysis: VOC, ~~SVOC~~

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

VOA Vials, No Headspace ☑ Initials: [illegible]

COMMENTS: Split sample w/IEPA for VOCs

Total Purge Volume: 4800 mL

2.02

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Maurstad

DATE: 4-5-13 WEATHER: Sunny, 60°

MONITORING WELL ID: MW-22 SAMPLE ID: MW22-Rox040513

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 48.21 ft
Depth to Water (btoc): 42.23 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 38.21 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 5.98 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) = 43.21 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1316	42.28	clear	Hydrocarbon	6.73	20.10	1.094	18.34	0.22	-202
800	1319	42.28	clear	Hydrocarbon	6.74	19.90	1.120	9.500	0.17	-231
1600	1321	42.28	clear	—	6.75	19.87	1.134	5.303	0.10	-257
2400	1323	42.28	clear	—	6.75	19.90	1.142	3.468	0.08	-265
3600	1325	42.28	clear	—	6.75	19.91	1.147	2.203	0.07	-284
4200	1327	42.28	clear	—	6.76	19.91	1.150	1.635	0.07	-282

Start Time: 1316
Stop Time: 1327

Elapsed Time (min): 11 min
Average Purge Rate (mL/min): 400 mL/min

Water Quality Meter ID & SSN: TROLL 9500 – R21229
Date Calibrated: 4-5-13

SAMPLING DATA

Sample Date: 4-5-13
Sample Time: 1330
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400 mL/min
QA/QCSamples: none
VOA Vials, No Headspace ☒ Initials:

COMMENTS: split sample with IEPA.

Total Purge Volume: 4200 mL

2.03

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 215628.0.03002 FIELD PERSONNEL: L. Rathnow, M. Mausker

DATE: 4-5-13 WEATHER: Sunny, 60° breezy

MONITORING WELL ID: MW-24 SAMPLE ID: MW24-ROX-040513

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 49.82 ft
Depth to Water (btoc): 43.34 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 39.82 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.43 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) = 44.82 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: 1.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1416	43.41	Yellow	—	6.74	18.64	1.195	55.57	0.31	-90
800	1418	43.41	Yellow	—	6.74	18.52	1.195	65.97	0.20	-117
1600	1421	43.41	clear	—	6.73	18.53	1.198	12.10	0.20	-171
2400	1423	43.41	clear	—	6.73	18.54	1.200	7.397	0.22	-202
3600	1425	43.41	clear	—	6.73	18.58	1.200	5.033	0.23	-214
4200	1428	43.41	clear	—	6.73	18.63	1.203	3.044	0.24	-219

Start Time: 1416 Elapsed Time (min): 12 min Water Quality Meter ID & SSN: TROLL 9500 -- R24229

Stop Time: 1428 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 4-5-13

SAMPLING DATA

Sample Date: 4-5-2013 Sample Time: 1430 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☑ Initials: [illegible]

COMMENTS: split sampled with TCEQA.

Total Purge Volume: 4200 mL

2.08

LOW FLOW GROUNDWA[illegible]AMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 215626bb0.03002 FIELD PERSONNEL: L. Rathnow, M. Maurker

DATE: 4-10-13 WEATHER: Drizzle, cloudy, 60°

MONITORING WELL ID: P-54 SAMPLE ID: P54-ROX-04/013

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 62.65 ft
Depth to Water (btoc): 42.09 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): 20.56 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) = 50.5 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1420	42.12	clear	hydrocarbon	6.72	18.20	1.087	17.85	0.23	-89
800	1423	42.12	clear	hydrocarbon	6.71	18.17	1.089	14.79	0.18	-84
1600	1425	42.12	clear	hydrocarbon	6.71	18.13	1.076	7.797	0.14	-94
2400	1427	42.12	clear	hydrocarbon	6.70	18.14	1.102	4.625	0.12	-95
3200	1429	42.12	clear	hydrocarbon	6.70	18.08	1.105	2.877	0.11	-96

Start Time: 1420
Stop Time: 1429
Elapsed Time (min): 9
Average Purge Rate (mL/min): 400 mL
Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4-10-13

SAMPLING DATA

Sample Date: 4-10-13
Sample Time: 1430
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 400mL
QA/QCSamples: MS/MSD
VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 3200 mL

2.07

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Mansker

DATE: 5/3/13 WEATHER: 45°F Rainy

MONITORING WELL ID: P-54 SAMPLE ID: P54-ROX-050313

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 62.65 ft
Depth to Water (btoc): 41.80 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): 20.85 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) = 50.50 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1143	41.80	clear	—	6.73	16.60	1031	44.60	0.95	212
800	1145	41.80	clear	—	6.74	16.89	1037	44.03	1.08	224
1600	1147	41.80	clear	—	6.73	17.08	1040	35.17	1.03	221
2400	1156	41.80	clear	—	6.73	17.21	1041	22.64	0.98	214
3200	1152	41.80	clear	—	6.73	17.22	1038	15.84	0.94	205
4000	1154	41.80	clear	—	6.73	17.30	1038	10.50	0.84	194
4800	1157	41.80	clear	—	6.73	17.40	1036	8.113	0.75	182
5600	1159	41.80	clear	—	6.73	17.47	1035	4.794	0.67	172
6400	1202	41.80	clear	—	6.73	17.51	1035	4.357	0.64	163

Start Time: 1143 Elapsed Time (min): 19 Minutes Water Quality Meter ID & SSN: TROLL 9500 -- R23799

Stop Time: 1202 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 5/3/13

SAMPLING DATA

Sample Date: 5-3-13 Sample Time: 1205 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 400mL/min QA/QC Samples: MS/MSD

VOA Vials, No Headspace ☑ Initials:

COMMENTS:

Total Purge Volume: 6400 mL

2.06

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Marsicek

DATE: 4-15-13 WEATHER: Rain, 55°, cloudy

MONITORING WELL ID: P-55 SAMPLE ID: P55-Rox-04-15-13

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 50.85 ft
Depth to Water (btoc): 43.63 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 40.85 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 7.22 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) = 45.85 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: 14.6 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1051	43.63	clear	hydrocarbon	6.75	21.46	0.8010	1.986	026	-160
800	1053	43.63	clear	Hydrocarb.	6.80	21.35	0.7984	1.208	013	-162
1600	1055	43.63	clear	Hydrocarbon	6.82	21.29	0.7967	0.5710	009	-165
2400	1057	43.63	clear	Hydrocarbon	6.83	21.27	0.7988	0.3680	005	-167
3200	1059	43.63	clear	Hydrocarbon	6.87	21.80	0.8010	0.2419	004	-170
4000	1102	43.63	clear	Hydrocarbon	6.85	21.43	0.8009	0.2024	003	-170
4800	1104	43.63	clear	Hydrocarb.	6.86	21.33	0.7994	0.0601	0.02	-174

Start Time: 1051
Stop Time: 1104

Elapsed Time (min): 13 minutes
Average Purge Rate (mL/min): 400mL/min

Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4-15-13

SAMPLING DATA

Sample Date: 4-15-13
Sample Time: 1105
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: 4800 mL

2.17

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rodhouse, M. Manstein

DATE: 4-12-13 WEATHER: Cool, cloudy/40°

MONITORING WELL ID: P-56 SAMPLE ID: P56-ROX-04213

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 65.78 ft
Depth to Water (btoc): 46.12 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 40.82 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 19.66 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) = 53.32 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: 0.0 ppm
Wellbore PID/FID Reading: 0.1 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1237	46.12	Sheen	hydrocarbon	6.61	22.81	1.234	1.804	0.09	-114
900	1240	46.12	Sheen	hydrocarbo	6.61	22.88	1.234	2.080	0.04	-114
1800	1243	46.12	Sheen	hydrocarbo	6.61	22.77	1.229	2.381	0.02	-117
2700	1244	46.12	Sheen	hydrocarbo	6.61	22.69	1.223	2.708	0.01	-120
3600	1247	46.12	Sheen	hydrocarbo	6.61	22.69	1.218	3.000	0.00	-122

Start Time: 1237
Stop Time: 1247

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

Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4-12-13

SAMPLING DATA

Sample Date: 4-12-13
Sample Time: 1250
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: [illegible]

COMMENTS:

Total Purge Volume: 3600 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: B. Lehan/L. Rathnow

DATE: 4/11/13 WEATHER: Overcast 48°F

MONITORING WELL ID: P-57 SAMPLE ID: A57-ROX-041113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 64.95 ft
Depth to Water (btoc): 46.29 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 40.46 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 18.66 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) = 55.62 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: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1340	46.33	clear	hydrocarbon	6.52	20.12	1.292	9.166	-0.03	-135
800	1342	46.33			6.52	20.30	1.307	8.022	-0.03	-137
2000	1345	46.33			6.52	20.46	1.316	8.597	-0.04	-140
2800	1347	46.33			6.52	[illegible]	1.322	7.713	-0.04	-142
3000	1350	46.33			6.52	20.74	1.328	7.000	-0.05	-144
3800	1352	46.33			6.53	20.83	1.331	8.619	-0.05	-145
4600	1354	46.33			6.53	20.78	1.331	6.973	-0.05	-146

Start Time: 1340 Elapsed Time (min): 14 Water Quality Meter ID & SSN: TROLL 9500 – R24229

Stop Time: 1354 Average Purge Rate (mL/min): 400 Date Calibrated: 4/11/13

SAMPLING DATA

Sample Date: 4/11/13 Sample Time: 1400 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: 4600 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW | PROJECT NUMBER: 21562850.03002 | FIELD PERSONNEL: B. Lehan/L. Rathnow

DATE: 4/11/13 | WEATHER: Overcast, 47°F

MONITORING WELL ID: P-58 | SAMPLE ID: P58-ROX-041113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 64.40 ft
Depth to Water (btoc): 49.40 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 40.21 ft
Screen Length): 25 ft

Water Column Height (do not include LNAPL or DNAPL): 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) = 54.46 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

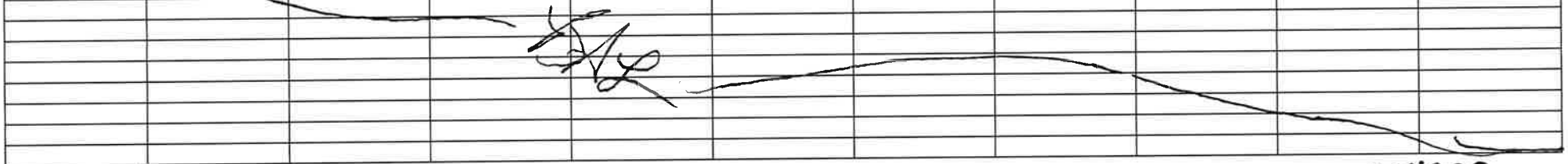
Volume of Flow Through Cell : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 6.3 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1437	44.56	clear	hydrocarbon	6.50	18.21	1.115	33.67	0.27	-91
800	1439	44.56	↓	↓	6.50	18.71	1.149	29.43	0.11	-96
1600	1442	44.56			6.50	18.95	1.175	26.29	0.06	-100
3200	1445	44.56			6.50	18.89	1.180	22.75	0.04	-104
4000	1447	44.56			6.50	18.91	1.185	22.92	0.04	-106
4800	1449	44.56	↓	↓	6.50	18.92	1.174	23.19	0.03	-109



Start Time: 1437
Stop Time: 1449

Elapsed Time (min): 12
Average Purge Rate (mL/min): 400 mL/min

Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4/11/13

SAMPLING DATA

Sample Date: 4/11/13
Sample Time: 1455
Lab Analysis: VOC, SVOC
Sample Method: Bladder Pump (Low Flow)
Sample Flow Rate (mL/min): 400
QA/QCSamples: none
VOA Vials, No Headspace ☒ Initials: [illegible]

COMMENTS:

Total Purge Volume: 4800 mL

2.18

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Manske

DATE: 4-12-13 WEATHER: Cool, cloudy, 40°

MONITORING WELL ID: P-59 SAMPLE ID: P59-Rox-04123

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 72.10 ft
Depth to Water (btoc): 46.95 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): 25.15 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) = 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 : 973 mL
Minimum Purge Volume = (3 x Flow Cell Volume): 2919 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 207 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	46.95	Yellow	Hydrocarbon	6.56	18.64	1.100	4.324	0.18	-106
900	1413	46.95	Yellow	Hydrocarbon	6.55	18.62	1.101	3.791	0.07	-110
1800	1417	46.95	Yellow	Hydrocarbon	6.55	18.59	1.102	3.740	0.03	-113
2700	1420	46.95	Yellow	Hydrocarbon	6.54	18.79	1.106	4.302	0.00	-116
3600	1423	46.95	Yellow	Hydrocarbon	6.54	18.74	1.109	3.910	-0.01	-119

Start Time: 1413 Elapsed Time (min): 10 minutes Water Quality Meter ID & SSN: TROLL 9500 - R21229

Stop Time: 1423 Average Purge Rate (mL/min): 400 mL Date Calibrated: 4-12-13

SAMPLING DATA

Sample Date: 4-12-13 Sample Time: 1425 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☒ Initials: [illegible]

COMMENTS:

Total Purge Volume: 3600 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow + R. Lehan

DATE: 4/11/13 WEATHER: 47°F, overcast

MONITORING WELL ID: P-60-12S SAMPLE ID: NA

INITIAL DATA

Well Diameter): 0.75 in
Total Well Depth (btoc): 23.20 ft
Depth to Water (btoc): 18.25 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 13.84 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 4.95 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) = 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:

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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 & SSN: 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:

7.480 gallons = 1 ft³

Total Purge Volume: mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathmow + B. Lehan

DATE: 4/11/13 WEATHER: 47°F Overcast

MONITORING WELL ID: P-60-13S SAMPLE ID: N/A

INITIAL DATA

Well Diameter): 0.75 in
Total Well Depth (btoc): 17.80 ft
Depth to Water (btoc): 17.03 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 10.00 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 0.73 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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 & SSN: 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:

Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW | PROJECT NUMBER: 21562850.03002 | FIELD PERSONNEL: LR/BL

DATE: 4/11/13 | WEATHER: Cloudy, 45°F

MONITORING WELL ID: P-66 | SAMPLE ID: P66-ROX-041113, P66-ROX-041113-EB

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 56.31 ft
Depth to Water (btoc): 36.03 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): 20.28 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) = 43.81 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: 0.0 ppm
Wellbore PID/FID Reading: 91.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 20 mV

Purge mL	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	~~800~~	0906	36.16	clear	hydrocarbon	6.39		1.157			-115	
800	~~1600~~ 800	0908	36.16	clear	"	6.39	65.21	1.166	23.46	0.10	-117	
1600	~~2400~~ 800	0910	36.10	clear	"	6.39	65.63	1.174	17.32	0.04	-119	
2400	~~3200~~ 800	0913	36.16	clear	"	6.39	66.16	1.183	13.92	0.02	-125	
3200	~~4000~~ 800	0915	36.10	clear	"	6.39	66.25	1.184	13.07	0.00	-128	19.0
4000	~~4800~~ 800	0918	36.10	clear	"	6.40	66.44	1.192	12.41	-0.04	-131	19.1
4800	~~5600~~ 800	0921	36.16	clear	"	6.40	66.56	1.198	13.65	-0.02	-133	19.2

Start Time: 0906 | Elapsed Time (min): 15 | Water Quality Meter ID & SSN: TROLL 9500 – [redacted]

Stop Time: 0921 | Average Purge Rate (mL/min): 400 | Date Calibrated: 4/11/13

SAMPLING DATA

Sample Date: 04/11/13 | Sample Time: 0930 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 400 | QA/QCSamples: Equipment Blank 0945

VOA Vials, No Headspace ☒ Initials: [redacted]

COMMENTS:

Total Purge Volume: ~~5600~~ 4800 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: B. Lehan, L. Rathbone

DATE: 4/2/13 WEATHER: —

MONITORING WELL ID: P-68 SAMPLE ID: —

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 70.26 ft
Depth to Water (btoc): 45.54 ft
Depth to LNAPL/DNAPL (btoc): 45.40 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: — ppm
Wellbore PID/FID Reading: — ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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 & SSN: 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: Well not sampled due to LNAPL in well.

Total Purge Volume: — mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW | PROJECT NUMBER: 21562850.03002 | FIELD PERSONNEL: B. Lehay + L. Rathnow

DATE: 4/11/13 | WEATHER: overcast, 45°F

MONITORING WELL ID: P-74 | SAMPLE ID: P74-ROX-04113

INITIAL DATA

Well Diameter): 4 in
Total Well Depth (btoc): 68.80 ft
Depth to Water (btoc): 42.83 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): 25.97 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) = 56.93 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1114	43.12	clear	none	7.30	16.27	0.1749	18.27	2.25	-77
800	1116	43.12			7.17	16.48	0.1753	18.35	2.03	-76
2000	1119	43.12			7.10	16.71	0.1761	17.31	1.88	-77
2800	1121	43.12			7.06	16.84	0.1763	18.17	1.77	-80
3600	1123	43.12			7.04	16.72	0.1758	16.07	1.71	-83
4400	1126	43.12			7.03	16.50	0.1752	16.08	1.67	-86
5600	1129	43.12			7.01	16.34	0.1749	[illegible]	1.62	-88
6400	1131	43.12			7.01	16.23	0.1746	[illegible]	1.55	-90
7200	1133	43.12			7.00	16.15	0.1746	14.75	1.49	-92
8000	1136	43.12			6.99	16.19	0.1751	14.65	1.43	-93

BAL

Start Time: 1114 | Elapsed Time (min): 22 | Water Quality Meter ID & SSN: TROLL 9500 – RJ4229

Stop Time: 1136 | Average Purge Rate (mL/min): 400 | Date Calibrated: 4/11/13

SAMPLING DATA

Sample Date: 4/11/13 | Sample Time: 1140 | Lab Analysis: VOC, SVOC

Sample Method: low flow | Sample Flow Rate (mL/min): 400 | QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: BL

COMMENTS:

Total Purge Volume: 8000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: W. Pennington, E. Arthur

DATE: 4/11/13 WEATHER: 40s - 50s, overcast

MONITORING WELL ID: P-93A SAMPLE ID: P93A-ROX-041113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 63.17 ft
Depth to Water (btoc): 46.29 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): 16.88 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: 0.0 ppm

PURGE DATA

Pump Type: Well-Wizard

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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)
900	1119	—	clearish	sl. HC	6.89	18.72	1.416	28.38	6.29	-83
~~2400~~ 3900	~~1123~~ 1121	—	↓	↓	6.90	18.95	1.412	32.33	6.57	-88
~~2900~~ 6900	~~1129~~ 1131	—	↓	↓	6.90	19.41	1.417	56.61	6.42	-91
~~9900~~	~~1134~~ 1141	—	↓	↓	6.85	19.62	1.427	34.37	5.72	-85
12900	1151	—	↓	↓	6.85	19.62	1.428	32.11	5.73	-85
15900	1201	—	↓	↓	6.85	19.70	1.433	33.41	5.83	-86

Start Time: 1116 Elapsed Time (min): 45 Water Quality Meter ID & SSN: TROLL 9500 – R22966

Stop Time: ~~1135~~ 1201 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/13

SAMPLING DATA

Sample Date: 4/11/13 Sample Time: ~~1135~~ 1201 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: P93A-ROX-041113 DUP

VOA Vials, No Headspace ☒ Initials: mf

COMMENTS:

Total Purge Volume: 15900 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: W. Pennington, E. Arthur

DATE: 4/11/13 WEATHER: 40-50°, overcast

MONITORING WELL ID: P-93B SAMPLE ID: P93B-ROX-041113

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 76.60 ft
Depth to Water (btoc): 46.32 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): 30.28 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: 0.0 ppm

PURGE DATA

Pump Type: Well-Wizard

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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)
350	1340	—	clear	none	6.89	15.96	1.630	1.471	2.87	-101
4200	1351	—	↓	↓	6.83	17.10	1.677	5.114	1.49	-97
~~8050~~ 7700	1401	—	↓	↓	6.83	17.33	1.665	3.003	1.13	-98
11550	1412	—	↓	↓	6.83	17.32	1.670	5.589	0.85	-100
	1423	—	↓	↓	6.84	17.21	1.666	3.538	0.97	-99

Start Time: 1339 Elapsed Time (min): 46 Water Quality Meter ID & SSN: TROLL 9500 – R229666

Stop Time: 1425 Average Purge Rate (mL/min): 350 Date Calibrated: ~~none~~ 4/11/13

SAMPLING DATA

Sample Date: 4/11/13 Sample Time: 1425 Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow Sample Flow Rate (mL/min): 350 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: mp

COMMENTS:

Total Purge Volume: mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW | PROJECT NUMBER: 21562850.03002 | FIELD PERSONNEL: W. Pennington, E. Arthur

DATE: 4/12/13 | WEATHER: 40-50°, ~~overcast~~ partly cloudy

MONITORING WELL ID: P-93C | SAMPLE ID: P93C-ROX-041213

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 96.26 ft
Depth to Water (btoc): 46.21 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): 50.05 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: 0.0 ppm

PURGE DATA

Pump Type: Well-Wizard

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	0937	—	clear	none	6.80	15.70	1.020	9.026	0.15	-12
4200	0949	—	↓	↓	6.86	16.74	0.9331	-0.0053	1.35	-80
8750 ~~8400~~	1002	—	↓	↓	6.89	16.78	0.9533	2.232	1.19	-80
13,650 ~~12600~~	~~1017~~ 1016	—	↓	↓	6.90	16.82	0.9540	3.282	1.03	-78
~~12950~~ 18,200	1029	—	↓	↓	6.91	17.15	0.9606	-0.2122	0.91	-77
22,400	1041	—	↓	↓	6.91	17.23	~~0.2239~~ 0.9631	-0.2239	1.17	-74
26,950	1054	—	↓	↓	6.91	17.09	0.9607	-0.3	0.89	-74

Start Time: 0937 | Elapsed Time (min): 78 | Water Quality Meter ID & SSN: TROLL 9500 – R22966

Stop Time: 1055 | Average Purge Rate (mL/min): 350 | Date Calibrated: ~~4/12/13~~ 4/12/13

SAMPLING DATA

Sample Date: 4/12/13 | Sample Time: 1055 | Lab Analysis: VOC, SVOC

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 350 | QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: wp

COMMENTS:

Total Purge Volume: 27300 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: W. Pennington, E. Arthur

DATE: 4/11/13 WEATHER: 40s-50s, overcast

MONITORING WELL ID: P-93D SAMPLE ID: P93D-ROX-041113

INITIAL DATA

Well Diameter): 2 in 128.00
Total Well Depth (btoc): ~~127.77~~ ft
Depth to Water (btoc): 46.37 ft
Depth to LNAPL/DNAPL (btoc): NE ft
Depth to Top of Screen (btoc): 125.75 ft
Screen Length): 2 ft

Water Column Height (do not include LNAPL or DNAPL): 81.63 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) = 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: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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)
1400	1232	—	clear	none	7.09	18.05	1.211	-0.1397	0.41	-106
2800	1236	—	↓	↓	7.08	17.98	1.210	1.102	0.25	-109
4200	1240	—	↓	↓	7.08	18.02	1.211	3.366	0.17	-111

Start Time: 1228 Elapsed Time (min): 12 Water Quality Meter ID & SSN: TROLL 9500 – R22966

Stop Time: 1240 Average Purge Rate (mL/min): 350 Date Calibrated: 4/11/13

SAMPLING DATA

Sample Date: 4/11/13 Sample Time: 1240 Lab Analysis: VOC, SVOC

Sample Method: ~~Bladder Pump~~ / Low Flow Monsoon Sample Flow Rate (mL/min): 350 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: mf

COMMENTS:

Total Purge Volume: 4200 mL

3.51

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathbone, N. Nanasker

DATE: 4-15-13 WEATHER: Cool, cloudy, 60°, drizzle

MONITORING WELL ID: P-114 SAMPLE ID: P114-ROX-041513

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 52.67 ft
Depth to Water (btoc): 31.80 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): 20.87 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: 0.0 ppm

PURGE DATA

Pump Type: Well-Wizard

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	31.80	cloudy	—	7.84	20.79	0.8699	47.90	1.10	-190
1500	1350	31.80	cloudy	—	7.68	20.84	0.8550	70.39	0.99	-182
3000	1354	31.80	grey	—	7.60	20.15	0.8666	49.82	0.84	-178
4500	1358	31.80	dark grey	—	7.54	20.18	0.8829	35.65	1.04	-175
6000	1402	31.80	dark grey	—	7.45	20.17	0.8962	35.64	1.41	-169
7500	1406	31.80	grey	—	7.41	20.81	0.9096	32.74	1.31	-163
9000	1410	31.80	grey	—	7.38	20.83	0.9213	31.46	1.69	-155
10500	1414	31.80	dark grey	—	7.34	20.85	0.9341	33.88	1.77	-148
12000	1418	31.80	grey	—	7.33	20.80	0.9412	31.68	1.83	-144

Start Time: 1346 Elapsed Time (min): 32 minutes Water Quality Meter ID & SSN: TROLL 9500 – R24229

Stop Time: 1418 Average Purge Rate (mL/min): 400 mL/min Date Calibrated: 4-15-13

SAMPLING DATA

Sample Date: 4-15-13 Sample Time: 1420 Lab Analysis: VOC, SVOC

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

VOA Vials, No Headspace ☑ Initials: LAR

COMMENTS:

Total Purge Volume: 12000 mL

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LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnaw, M. Manstein

DATE: 4-5-13 WEATHER: Cool, sunny, 55°

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ROST3MW-ROX-040513

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 48.65 ft
Depth to Water (btoc): 42.24 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 38.18 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 6.41 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) = 43.65 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: 0.5 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1048	42.38	cloudy	hydrocarbon	6.94	18.23	0.7400	409.9	0.10	-203
800	1050	42.38	cloudy	hydrocarbon	6.94	18.33	0.7425	282.4	0.06	-238
1600	1052	42.38	cloudy	hydrocarbon	6.94	18.25	0.7421	151.3	0.05	-282
2400	1055	42.38	cloudy	hydrocarbon	6.94	18.21	0.7421	105.9	0.04	-306
3200	1058	42.38	cloudy	hydrocarbon	6.94	18.19	0.7422	63.94	0.04	-317
4000	1100	42.38	cloudy	hydrocarbon	6.94	18.18	0.7422	45.92	0.04	-321
4800	1102	42.38	cloudy	hydrocarbon	6.94	18.17	0.7421	38.25	0.03	-322
5600	1104	42.38	cloudy	hydrocarbon	6.94	18.18	0.7425	31.80	0.03	-325
6400	1106	42.38	cloudy	hydrocarbon	6.94	18.16	0.7424	25.59	0.03	-325
7200	1108	42.38	cloudy	hydrocarbon	6.94	18.17	0.7426	23.25	0.03	-325
8000	1110	42.38	cloudy	—	6.94	18.19	0.7436	27.08	0.03	-320
8800	1113	42.38	cloudy	—	6.94	18.44	0.7474	21.08	0.03	-319
9600	1115	42.38	cloudy	—	6.94	18.52	0.7489	21.93	0.03	-316
10400	1117	42.38	cloudy	—	6.94	18.48	0.7487	18.97	0.02	-319
11200	1120	42.38	cloudy	—	6.93	18.50	0.7495	17.41	0.02	-318
12000	1122	42.38	cloudy	—	6.94	18.45	0.7485	13.82	0.02	-324

Start Time: 1048 Elapsed Time (min): 43 Water Quality Meter ID & SSN: TROLL 9500 – R24229

Stop Time: 1131 Average Purge Rate (mL/min): 400mL/min Date Calibrated: 4-5-13

SAMPLING DATA

Sample Date: 4-5-13 Sample Time: 1135 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: [illegible]

COMMENTS: Split sample with IEPA

Total Purge Volume: 5000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: 2013 Roxana GW PROJECT NUMBER: 215628500302 FIELD PERSONNEL: L. Rathwell, M. Manske

DATE: 4-5-2013 MONITORING WELL ID: ROST-3-MW

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	pH	Temp (°C)	Cond. (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)
12800	1124	42.38	clear	—	6.94	18.44	0.7476	12.81	0.02	-318
13800	1126	42.38	clear	—	6.94	18.43	0.7487	10.91	0.02	-319
14200	1129	42.38	clear	—	6.94	18.36	0.7469	11.89	0.02	-322
15000	1131	42.38	clear	—	6.94	18.60	0.7508	11.04	0.01	-319

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathunow, M. Monsees

DATE: 4/4/13 WEATHER: 40°F Sunny

MONITORING WELL ID: ROST-4-PZ(A) SAMPLE ID: ROST4PZA-ROX-040413, ROST4PZA-ROX-040413 EB

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.75 ft
Depth to Water (btoc): 41.42 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.77 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 3.33 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) = 43.00 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: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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: —
Stop Time: —
Elapsed Time (min): —
Average Purge Rate (mL/min): —
Water Quality Meter ID & SSN: TROLL 9500 – R21229
Date Calibrated: 4/4/13

SAMPLING DATA

Sample Date: 4/4/13
Sample Method: Bladder Pump / Low Flow
VOA Vials, No Headspace ☒ Initials: [illegible]
Sample Time: 1055
Sample Flow Rate (mL/min): 100
Lab Analysis: VOC, ~~SVOC~~
QA/QCSamples: EB

COMMENTS:

Well purged ready dry. Sampled for VOCs once well recharges. Split sampled with IEPA

Total Purge Volume: — mL

1.51

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L Rathbone, M. Manstein

DATE: 4-10-13 WEATHER: Cool, cloudy 80% chance of rain

MONITORING WELL ID: ROST-4-PZ(C) SAMPLE ID: ROST-4-PZ(C)-ROX-04/013

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 45.15 ft
Depth to Water (btoc): 42.27 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): 2.88 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) = 43.50 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: 0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	0850	42.28	clear	hydrocarb.	6.71	18.84	1.397	1090	0.23	-125
800	0852	42.81	clear	hydrocarb.	6.71	19.00	1.390	659	0.10	-133
1600	0854	42.81	clear	—	6.73	19.13	1.377	389	0.05	-139
2400	0856	42.81	clear	—	6.74	19.19	1.354	241	0.03	-144
3200	0859	42.81	clear	—	6.75	19.22	1.334	167	0.01	-148

Start Time: 0850 Elapsed Time (min): 9min Water Quality Meter ID & SSN: TROLL 9500 - R24229

Stop Time: 0859 Average Purge Rate (mL/min): 400mL/min Date Calibrated: 4-10-13

SAMPLING DATA

Sample Date: 4-10-13 Sample Time: 0905 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: LAR

COMMENTS:

Total Purge Volume: 3200 mL

4.07

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathbun, M. Manskar

DATE: 4-4-13 WEATHER: Sunny, cool 55°

MONITORING WELL ID: ROST-4-PZ(F) SAMPLE ID: ROST4PZF-ROX-040413

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.75 ft
Depth to Water (btoc): 41.03 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.53 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 3.72 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) = 42.82 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1303	41.11	—	hydrocarbon	9.47	20.74	0.7827	13.75	0.55	-75
800	1308	41.52	—	hydrocarbon	9.53	21.32	0.7944	8.145	0.58	-76
1600	1313	41.58	—	hydrocarbon	9.56	21.67	0.8005	6.988	0.61	-76
2400	1317	41.45	—	hydrocarbon	9.62	21.52	0.7978	7.235	0.60	-76
3200	1321	41.40	—	hydrocarbon	9.65	21.46	0.7964	7.386	0.57	-76
		~~42.0~~								

Start Time: 1303
Stop Time: 1321
Elapsed Time (min): 18 minutes
Average Purge Rate (mL/min): 200 mL/min
Water Quality Meter ID & SSN: TROLL 9500 – RN4229
Date Calibrated: 4-4-13

SAMPLING DATA

Sample Date: 4-4-13
Sample Time: 1325
Lab Analysis: VOC, ~~SVOC~~
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 200 mL/min
QA/QCSamples: none
VOA Vials, No Headspace ☒ Initials:

COMMENTS:
Split sample with IEPA. Only sample for VOCs.

Total Purge Volume: 3200 mL

2.41

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathbone, M. Maustker

DATE: 4-4-13 WEATHER: Sunny, 60°

MONITORING WELL ID: ROST-4-PZ(G) SAMPLE ID: ROST4PZG-ROX-040413

INITIAL DATA

Well Diameter): 2 in
Total Well Depth (btoc): 44.60 ft
Depth to Water (btoc): 42.03 ft
Depth to LNAPL/DNAPL (btoc): — ft
Depth to Top of Screen (btoc): 34.28 ft
Screen Length): 10 ft

Water Column Height (do not include LNAPL or DNAPL): 2.57 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) = 42.90 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

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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1405	42.03	clear	hydrocarbon	10.26	19.10	1.045	34.07	0.32	-98
780	1408	42.03	clear	hydrocarbon	10.14	19.50	1.051	16.50	0.15	-107
1560	1411	42.07	clear	hydrocarbon	10.12	19.67	1.060	8.017	0.09	-111
2346	1413	42.07	clear	hydrocarbon	10.17	19.75	1.065	4.551	0.01	-113
3120	1416	42.07	clear	hydrocarbon	10.18	19.07	1.052	1.912	0.03	-114
3900	1419	42.07	clear	hydrocarbon	10.20	18.87	1.047	1.164	0.01	-115
4680	1422	42.07	clear	hydrocarbon	10.22	18.81	1.046	0.5249	0.01	-116
5460	1425	42.07	clear	hydrocarbon	10.22	18.83	1.045	0.3750	-0.00	-117

Start Time: 1405
Stop Time: 1425

Elapsed Time (min): 20 MIN
Average Purge Rate (mL/min): 300 mL/min

Water Quality Meter ID & SSN: TROLL 9500 – R24229
Date Calibrated: 4-4-13

SAMPLING DATA

Sample Date: 4-4-13
Sample Time: 1430
Lab Analysis: VOC, [redacted]
Sample Method: Bladder Pump / Low Flow
Sample Flow Rate (mL/min): 300 mL/min
QA/QCSamples: MS/MSD
VOA Vials, No Headspace ☒ Initials:

COMMENTS:
Split sample with IEPA. Only sample for VOCs.

Total Purge Volume: 5460 mL

LOW FLOW GROUNDWA SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L Rathrow, M. Mansker

DATE: ~~4/8~~ 4/8/13 WEATHER: Cloudy 60°F

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

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 23.00 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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: —
Stop Time: —
Elapsed Time (min): —
Average Purge Rate (mL/min): —
Water Quality Meter ID & SSN: TROLL 9500 – —
Date Calibrated: —

SAMPLING DATA

Sample Date: —
Sample Method: Bladder Pump / Low Flow
VOA Vials, No Headspace ☐ Initials: —
Sample Time: —
Sample Flow Rate (mL/min): —
Lab Analysis: VOC, SVOC
QA/QCSamples: —

COMMENTS:

Well Dry DTB: ~~29~~ 22.97

Total Purge Volume: 0 mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Matthews, M. Monsler

DATE: 4/8/13 WEATHER: cloudy 60°F

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

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 30.00 ft
Depth to Water (btoc): 25.41 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): 4.59 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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 & SSN: 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: (30 - 25.41) 0.041 = 0.11 gallons of water in well. Not enough water to sample well

Total Purge Volume: — mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rathnow, M. Monsker

DATE: 4/8/13 WEATHER: Cloudy 60°F

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

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 19.85 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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 & SSN: 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: Well Dry. DTB= 19.84

Total Purge Volume: — mL

LOW FLOW GROUNDWA[illegible] SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: L. Rothrow, M. Manske

DATE: 4/8/13 WEATHER: Cloudy 60°F

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

INITIAL DATA

Well Diameter): 1 in
Total Well Depth (btoc): 19.85 ft (19.87)
Depth to Water (btoc): 19.21 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): 0.64 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: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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 & SSN: 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: (19.85 - 19.21) 0.04 = 0.026 gallons of water in well

Well Dry.

Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q13 GW PROJECT NUMBER: 21562850.03002 FIELD PERSONNEL: W. Pennington / E. Arthur

DATE: 4/15/13 WEATHER: 50s - 60s, overcast, light rain

MONITORING WELL ID: T-12 SAMPLE ID: T12-ROX-041513

INITIAL DATA

Well Diameter): 6 in 72.46
Total Well Depth (btoc): ~~73.45~~ ft
Depth to Water (btoc): 44.99 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): 27.47 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: 0.0 ppm

PURGE DATA

Pump Type: Monsoon Stainless Steel Submersible Pump

	STABLE: (over 3 readings)	+/- 0.2	+/- 0.2 °C	+/- 3%	<10 or +/- 10%	+/- 0.2 mg/L or +/- 10%	+/- 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	1228	—	clear	hydrocarbon	6.55	18.88	1.244	16.56	0.89	-99
3150	1237	—	↓	↓	6.80	18.26	1.171	10.25	-0.03	-117
6300	1246	—	↓	↓	6.82	18.45	1.153	17.90	-0.07	-121
9450	1255	—	↓	↓	6.81	18.56	1.172	17.82	-0.08	-121
12600	1304	—	↓	↓	6.81	18.64	1.177	10.67	-0.09	-122

Start Time: 1228 Elapsed Time (min): 36 Water Quality Meter ID & SSN: TROLL 9500 - R22966

Stop Time: 1304 Average Purge Rate (mL/min): 350 Date Calibrated: 4/15/13

SAMPLING DATA

Sample Date: 4/15/13 Sample Time: 1304 Lab Analysis: VOC, SVOC

Sample Method: ~~Bladder Pump~~ / Low Flow Monsoon Sample Flow Rate (mL/min): 350 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials:

COMMENTS:

Total Purge Volume: 12600 mL

Roxana Groundwater Quarterly – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19576

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/6/2013

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

Sample Identification	Sample Identification
MW6A-ROX-040313	MW6B-ROX-040313
MW6C-ROX-040313	MW6D-ROX-040313
TB-ROX-040313-HCL	TB-ROX-040313-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 and PAH LCS recoveries were outside evaluation criteria. Additionally, the initial and continuing calibration verification recovery for acrolein exceeded 50 percent difference (%D). Initial calibration verification recovery for acetone 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
MSV694-BS/BSD	VOCs	Acetone	**135/135**	0	70-130/25
MSV694-BS/BSD	VOCs	Acrolein	**28/29**	3	70-130/25

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
OP32575-BS	SVOCs	Phenol	**25**	NA	30-130
OP32575-BS	SVOCs	Aniline	**31**	NA	40-140
OP32575-BS	SVOCs	Benzyl alcohol	**10**	NA	40-140
OP32575-BS	SVOCs	Hexachlorocyclopentadiene	**32**	NA	40-140
OP32575-BS	SVOCs	n-Nitrosodimethylamine	**39**	NA	40-140
OP32575-BS	SVOCs	Pyridine	**31**	NA	40-140
OP32577-BS	PAHs	Acenaphthylene	**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/LCSD MSV694-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-040313	VOCs	Acrolein	**UJ**
MW6B-ROX-040313	VOCs	Acrolein	**UJ**
MW6C-ROX-040313	VOCs	Acrolein	**UJ**
MW6D-ROX-040313	VOCs	Acrolein	**UJ**
MW6A-ROX-040313	SVOCs	Phenol	**UJ**
MW6A-ROX-040313	SVOCs	Aniline	**UJ**
MW6A-ROX-040313	SVOCs	Benzyl alcohol	**UJ**
MW6A-ROX-040313	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6A-ROX-040313	SVOCs	n-Nitrosodimethylamine	**UJ**
MW6A-ROX-040313	SVOCs	Pyridine	**UJ**
MW6A-ROX-040313	PAHs	Acenaphthylene	**UJ**
MW6B-ROX-040313	SVOCs	Phenol	**UJ**
MW6B-ROX-040313	SVOCs	Aniline	**UJ**
MW6B-ROX-040313	SVOCs	Benzyl alcohol	**UJ**
MW6B-ROX-040313	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6B-ROX-040313	SVOCs	n-Nitrosodimethylamine	**UJ**
MW6B-ROX-040313	SVOCs	Pyridine	**UJ**
MW6B-ROX-040313	PAHs	Acenaphthylene	**UJ**
MW6C-ROX-040313	SVOCs	Phenol	**UJ**
MW6C-ROX-040313	SVOCs	Aniline	**UJ**
MW6C-ROX-040313	SVOCs	Benzyl alcohol	**UJ**
MW6C-ROX-040313	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6C-ROX-040313	SVOCs	n-Nitrosodimethylamine	**UJ**
MW6C-ROX-040313	SVOCs	Pyridine	**UJ**
MW6C-ROX-040313	PAHs	Acenaphthylene	**UJ**
MW6D-ROX-040313	SVOCs	Phenol	**UJ**
MW6D-ROX-040313	SVOCs	Aniline	**UJ**
MW6D-ROX-040313	SVOCs	Benzyl alcohol	**UJ**
MW6D-ROX-040313	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6D-ROX-040313	SVOCs	n-Nitrosodimethylamine	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW6D-ROX-040313	SVOCs	Pyridine	**UJ**
MW6D-ROX-040313	PAHs	Acenaphthylene	**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 a dilution.

12.0 Additional Qualifications

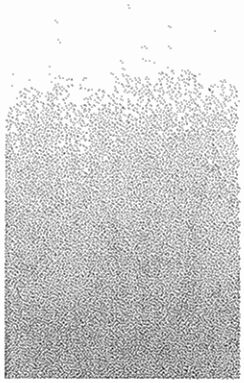
Were additional qualifications applied?

Yes, the initial and continuing calibration verification recovery for acrolein exceeded 50 percent difference (%D). Initial calibration verification recovery for acetone exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of acrolein was required. Acetone in associated samples was qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-040313	VOCs	Acetone	**UJ**
MW6B-ROX-040313	VOCs	Acetone	**UJ**
MW6C-ROX-040313	VOCs	Acetone	**UJ**
MW6D-ROX-040313	VOCs	Acetone	**UJ**

New England ACCUTEST LABORATORIES

05/07/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19576

Sampling Date: 04/03/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Reviewed on 5/6/2013

Total number of pages in report: **81**

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)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8

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Sample Summary

Shell Oil

Job No: MC19576

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC19576-1	04/03/13	11:00	LRMM	04/05/13	AQ	Ground Water	MW6A-ROX-040313
MC19576-2	04/03/13	11:40	LRMM	04/05/13	AQ	Ground Water	MW6B-ROX-040313
MC19576-3	04/03/13	13:50	LRMM	04/05/13	AQ	Ground Water	MW6C-ROX-040313
MC19576-4	04/03/13	15:30	LRMM	04/05/13	AQ	Ground Water	MW6D-ROX-040313
MC19576-5	04/03/13	00:00	LRMM	04/05/13	AQ	Trip Blank Water	TB-ROX-040313-HCL
MC19576-6	04/03/13	00:00	LRMM	04/05/13	AQ	Trip Blank Water	TB-ROX-040313-ST

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19576
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	**Report Date**	4/23/2013 11:02:57 AM

4 Sample(s) and 2 Trip Blank(s) were collected on 04/03/2013 and were received at Accutest on 04/05/2013 properly preserved, at 3.4 Deg. C and intact. These Samples received an Accutest job number of MC19576. 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:** MSV694

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19617-1MS, MC19617-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- BS/BSD Recovery(s) for Acetone, Acrolein are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 1,4-Dioxane, 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 1,4-Dioxane, 2-Chloroethyl vinyl ether are outside control limits for sample MC19617-1MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Calibration check standard MSV692-ICV692 and MSV694-CC692 for acrolein exceeds 50% Difference. Acrolein is considered a difficult method analyte.
- Initial calibration verification MSV692-ICV692 for acetone exceeds 50% Difference (response bias high). Associated sample is non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ **Batch ID:** OP32575

- 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) MC19626-15MS, MC19626-15MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for Aniline, Benzyl Alcohol, Hexachlorocyclopentadiene, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Aniline, Benzyl Alcohol, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, Benzyl Alcohol, Hexachlorocyclopentadiene, Phenol, 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: OP32577

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19577-2MS, MC19577-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Acenaphthylene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Duplicate Recovery(s) for Acenaphthylene are outside control limits. Blank Spike meets program technical requirements.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP32677

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19670-4MS, MC19670-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification standard GBK829-ICV829 for 4-Bromofluorobenzene exceeded criteria. Target recovery satisfactory.

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(MC19576).

Summary of Hits

Job Number: MC19576
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/03/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19576-1	MW6A-ROX-040313					
Benzene		1.7	0.50	0.24	ug/l	SW846 8260B
Di-n-butyl phthalate		1.8 J	5.3	0.41	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		0.52 J	2.1	0.52	ug/l	SW846 8270C
Phenanthrene		0.084	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.053 J	0.11	0.038	ug/l	SW846 8270C BY SIM
MC19576-2	MW6B-ROX-040313					
Benzene		0.43 J	0.50	0.24	ug/l	SW846 8260B
Methyl Tert Butyl Ether		13.2	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		1.2 J	5.4	0.42	ug/l	SW846 8270C
2-Methylnaphthalene		0.20 J	0.22	0.056	ug/l	SW846 8270C BY SIM
MC19576-3	MW6C-ROX-040313					
Benzene		0.62	0.50	0.24	ug/l	SW846 8260B
Methyl Tert Butyl Ether		2.2	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		0.77 J	5.2	0.40	ug/l	SW846 8270C
2-Methylnaphthalene		0.16 J	0.21	0.054	ug/l	SW846 8270C BY SIM
MC19576-4	MW6D-ROX-040313					
Benzene		0.55	0.50	0.24	ug/l	SW846 8260B
Di-n-butyl phthalate		0.69 J	5.3	0.41	ug/l	SW846 8270C
MC19576-5	TB-ROX-040313-HCL					
No hits reported in this sample.						
MC19576-6	TB-ROX-040313-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW6A-ROX-040313		
Lab Sample ID:	MC19576-1	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17498.D	1	04/15/13	AMY	n/a	n/a	MSV694
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	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	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	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
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040313		
Lab Sample ID:	MC19576-1	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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:	MW6A-ROX-040313		
Lab Sample ID:	MC19576-1	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	103%		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:	MW6A-ROX-040313		
Lab Sample ID:	MC19576-1	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11120.D	1	04/12/13	KR	04/09/13	OP32575	MSW521
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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.62	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.3	0.54	ng/l	UJ
95-95-4	2,4,5-Trichlorophenol	ND	11	0.61	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.91	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	UJ
91-58-7	2-Chloronaphthalene	ND	5.3	0.98	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl pheuyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.72	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	1.8	5.3	0.41	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-040313		
Lab Sample ID:	MC19576-1	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.52	2.1	0.52	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.3	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	0.47	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ng/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.86	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.58	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	22%		15-110%
4165-62-2	Phenol-d5	17%		15-110%
118-79-6	2,4,6-Tribromophenol	61%		15-110%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	87%		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
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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:	MW6A-ROX-040313		
Lab Sample ID:	MC19576-1	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82507.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068
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	U
120-12-7	Anthracene	ND	0.11	0.019	ng/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	ng/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	ng/l	
86-73-7	Flnorene	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	0.084	0.053	0.013	ug/l	
129-00-0	Pyrene	0.053	0.11	0.038	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	61%		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:	MW6A-ROX-040313		
Lab Sample ID:	MC19576-1	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23586.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
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)	119%		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

Report of Analysis

Client Sample ID:	MW6B-ROX-040313		
Lab Sample ID:	MC19576-2	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17499.D	1	04/15/13	AMY	n/a	n/a	MSV694
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	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	0.43	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	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-040313		
Lab Sample ID:	MC19576-2	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	13.2	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	
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-040313		
Lab Sample ID:	MC19576-2	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	103%		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:	MW6B-ROX-040313		
Lab Sample ID:	MC19576-2	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11121.D	1	04/12/13	KR	04/09/13	OP32575	MSW521
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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	II	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.4	0.55	ug/l	UJ
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.92	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	UJ
91-58-7	2-Chloronaphthalene	ND	5.4	0.99	ug/l	
106-47-8	4-Chloroaniline	ND	I1	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	his(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	his(2-Chloroisopropyl)ether	ND	5.4	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.70	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.69	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	1.2	5.4	0.42	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	MW6B-ROX-040313		
Lab Sample ID:	MC19576-2	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.4	0.47	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.87	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.58	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	29%		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	70%		30-130%
321-60-8	2-Fluorobiphenyl	69%		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:	MW6B-ROX-040313		
Lab Sample ID:	MC19576-2	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82508.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068
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	ND	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	
120-12-7	Authracene	ND	0.11	0.019	ug/l	
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	ND	0.054	0.025	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	0.063	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	Flnoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	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	0.20	0.22	0.056	ug/l	J
85-01-8	Phenanthrene	ND	0.054	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	58%		30-130%
1718-51-0	Terphenyl-d14	63%		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:	MW6B-ROX-040313		
Lab Sample ID:	MC19576-2	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Ceutral Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23587.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
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 Recoverics	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	116%		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:	MW6C-ROX-040313		
Lab Sample ID:	MC19576-3	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17500.D	1	04/15/13	AMY	n/a	n/a	MSV694
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	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	0.62	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	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-Butylbeuzene	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:	MW6C-ROX-040313		
Lab Sample ID:	MC19576-3	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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	2.2	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	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	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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040313		
Lab Sample ID:	MC19576-3	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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:	MW6C-ROX-040313		
Lab Sample ID:	MC19576-3	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11122.D	1	04/12/13	KR	04/09/13	OP32575	MSW521
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ng/l	
105-67-9	2,4-Dimetbylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ug/l	UJ
95-95-4	2,4,5-Trichlorophenol	ND	10	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.89	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.60	ug/l	UJ
91-58-7	2-Chloronaphthalene	ND	5.2	0.96	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.21	ug/l	
122-66-7	1,2-Dipheuylhydrazine	ND	5.2	0.68	ug/l	
121-14-2	2,4-Diuitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.67	ug/l	
91-94-1	3,3'-Dichlorobeuzidine	ND	5.2	0.52	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	0.77	5.2	0.40	ug/l	J
117-84-0	Di-u-octyl phthalate	ND	5.2	0.45	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:	MW6C-ROX-040313		
Lab Sample ID:	MC19576-3	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	0.46	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.84	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.54	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	18%		15-110%
118-79-6	2,4,6-Tribromophenol	64%		15-110%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	70%		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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040313		
Lab Sample ID:	MC19576-3	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	l82509.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068
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	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	0.052	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	ND	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	ND	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	0.16	0.21	0.054	ug/l	J
85-01-8	Phenauthrene	ND	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
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	60%		30-130%
1718-51-0	Terphenyl-d14	58%		30-130%

ND = Not detected MDL - Method Detection Limit
RL = Reportiug Limit
E = Indicates value exceeds calibration rauge
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:	MW6C-ROX-040313		
Lab Sample ID:	MC19576-3	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23588.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
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)	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:	MW6D-ROX-040313		
Lab Sample ID:	MC19576-4	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17501.D	1	04/15/13	AMY	n/a	n/a	MSV694
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	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	0.55	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	ng/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-040313		
Lab Sample ID:	MC19576-4	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-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	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	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:	MW6D-ROX-040313		
Lab Sample ID:	MC19576-4	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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
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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:	MW6D-ROX-040313		
Lab Sample ID:	MC19576-4	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11123.D	1	04/12/13	KR	04/09/13	OP32575	MSW521
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.3	0.54	ug/l	uJ
95-95-4	2,4,5-Trichlorophenol	ND	11	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.33	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	uJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.90	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	uJ
91-58-7	2-Chloronaphthalene	ND	5.3	0.97	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.71	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	0.69	5.3	0.41	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-040313		
Lab Sample ID:	MC19576-4	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ng/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.6	ug/l	u J
67-72-1	Hexachloroethane	ND	5.3	0.46	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ng/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	u J
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.85	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.57	ug/l	
110-86-1	Pyridine	ND	11	0.54	ug/l	u J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	27%		15-110%
4165-62-2	Phenol-d5	20%		15-110%
118-79-6	2,4,6-Tribromophenol	68%		15-110%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	82%		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:	MW6D-ROX-040313		
Lab Sample ID:	MC19576-4	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82510.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068
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	Acenaphtheue	ND	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	U
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	ng/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	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	60%		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:	MW6D-ROX-040313		
Lab Sample ID:	MC19576-4	Date Sampled:	04/03/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23589.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
Run #2							

	Initial Volume	Final Volume
Run #1	35.0 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-Dibromoetbane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	113%		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:	TB-ROX-040313-HCL		
Lab Sample ID:	MC19576-5	Date Sampled:	04/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17497.D	1	04/15/13	AMY	n/a	n/a	MSV694
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	ng/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	Dichlorodiflnoromethane	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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040313-HCL		
Lab Sample ID:	MC19576-5	Date Sampled:	04/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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	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-040313-HCL		
Lab Sample ID:	MC19576-5	Date Sampled:	04/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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 componnd

Report of Analysis

Client Sample ID:	TB-ROX-040313-ST		
Lab Sample ID:	MC19576-6	Date Sampled:	04/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/05/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23590.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
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)	117%		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 presnmptive 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 (ION)

☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER (Accutest Labs; 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☐ SPL (_____)

Lab Vendor #

Shell Oi[l] Products Chain Of Custody Record

RS

Please Check Appropriate Box:		
☑ ENV. SERVICES	☐ MOTIVA RETAIL	☐ SHELL RETAIL
☐ MOTIVA S&M/H	☐ CONSULTANT	☐ LUBES
☐ SHELL PIPELINE	☐ OTHER	

Prim Bill To Contact Name: Brian Smith

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 4-3-13

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 Reports): Dave Palmer and Elizabeth Kunkel	
TELEPHONE: 314-429-0100	FAX: 314-429-0462
E-MAIL: brian.smith@urs.com; elizabeth.kunkel@urs.com	

4/10 ADDRESS: Street and City: 900 South Central Ave, ROXANA	State: IL
ZIP CODE	
QUOTE/BOTTLE ORDER	
SAMPLER NAME(S) (Print): Lindsay Ruthrauff, Melissa Manker	
PHONE NO	
E-MAIL	
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21562860.03002	
LAB USE ONLY: MC19576	

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	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)	FIELD NOTES: Container PID Readings or Laboratory Notes
-1	MW6A-ROX-040313	4/3/13	1100	Water	2			2	2	6	X	X	X	X	0	
-2	MW6B-ROX-040313	"	1140	"	2			2	2	6	X	X	X	X		
-3	MW6C-ROX-040313	"	1350	"	2			2	2	6	X	X	X	X		
-4	MW6D-ROX-040313	"	1530	"	2			2	2	6	X	X	X	X		
-5	TB-ROX-040313-HCL	"	0000	"	2					2	X					
-6	TB-ROX-040313-STL	"	0000	"				2	2	2		X				
							MM									
																16B, 4D3

Melissa Manker

Relinquished by (Signature)	Received by (Signature)	Date	Time
Melissa Manker	FED EX	4-3-13	1730
FEDX		4-5-13	930

05/06 Revision

3.4°C

5.1

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MC19576: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19576 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 4/5/2013 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 Preservation	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 G

MC19576: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19576

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19576-1 Collected: 03-APR-13 11:00 By: LRMM Received: 05-APR-13 By: AF						
MW6A-ROX-040313						
MC19576-1	SW846 8270C BY SIM	10-APR-13 22:32	NS	09-APR-13	SC	B8270SIMSL
MC19576-1	SW846 8270C	12-APR-13 19:31	KR	09-APR-13	SC	AB8270SL+
MC19576-1	SW846 8260B	15-APR-13 14:29	AMY			V8260SL+
MC19576-1	SW846 8011	17-APR-13 01:42	NK	15-APR-13	PA	V8011SL
MC19576-2 Collected: 03-APR-13 11:40 By: LRMM Received: 05-APR-13 By: AF						
MW6B-ROX-040313						
MC19576-2	SW846 8270C BY SIM	10-APR-13 22:56	NS	09-APR-13	SC	B8270SIMSL
MC19576-2	SW846 8270C	12-APR-13 19:54	KR	09-APR-13	SC	AB8270SL+
MC19576-2	SW846 8260B	15-APR-13 14:56	AMY			V8260SL+
MC19576-2	SW846 8011	17-APR-13 02:09	NK	15-APR-13	PA	V8011SL
MC19576-3 Collected: 03-APR-13 13:50 By: LRMM Received: 05-APR-13 By: AF						
MW6C-ROX-040313						
MC19576-3	SW846 8270C BY SIM	10-APR-13 23:19	NS	09-APR-13	SC	B8270SIMSL
MC19576-3	SW846 8270C	12-APR-13 20:17	KR	09-APR-13	SC	AB8270SL+
MC19576-3	SW846 8260B	15-APR-13 15:23	AMY			V8260SL+
MC19576-3	SW846 8011	17-APR-13 02:35	NK	15-APR-13	PA	V8011SL
MC19576-4 Collected: 03-APR-13 15:30 By: LRMM Received: 05-APR-13 By: AF						
MW6D-ROX-040313						
MC19576-4	SW846 8270C BY SIM	10-APR-13 23:43	NS	09-APR-13	SC	B8270SIMSL
MC19576-4	SW846 8270C	12-APR-13 20:40	KR	09-APR-13	SC	AB8270SL+
MC19576-4	SW846 8260B	15-APR-13 15:50	AMY			V8260SL+
MC19576-4	SW846 8011	17-APR-13 03:01	NK	15-APR-13	PA	V8011SL
MC19576-5 Collected: 03-APR-13 00:00 By: LRMM Received: 05-APR-13 By: AF						
TB-ROX-040313-HCL						
MC19576-5	SW846 8260B	15-APR-13 14:03	AMY			V8260SL+
MC19576-6 Collected: 03-APR-13 00:00 By: LRMM Received: 05-APR-13 By: AF						
TB-ROX-040313-ST						

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19576

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19576-6	SW846 8011	17-APR-13 03:28	NK	15-APR-13	PA	V8011SL

Accutest Internal Chain of Custody

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL
Received: 04/05/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19576-1.2	Walk In Ref #22	Michael Rolo	04/09/13 07:47	Retrieve from Storage
MC19576-1.2	Michael Rolo		04/10/13 07:39	Depleted
MC19576-1.4	VOC Ref #4	Amy Min Yang	04/15/13 12:17	Retrieve from Storage
MC19576-1.4	Amy Min Yang	GCMSV	04/15/13 12:17	Load on Instrument
MC19576-1.4	GCMSV	Kerry Ryan	04/16/13 11:38	Unload from Instrument
MC19576-1.4	Kerry Ryan	VOC Ref #4	04/16/13 11:39	Return to Storage
MC19576-1.6	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19576-1.6	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19576-2.2	Walk In Ref #22	Michael Rolo	04/09/13 07:47	Retrieve from Storage
MC19576-2.2	Michael Rolo		04/10/13 07:39	Depleted
MC19576-2.4	VOC Ref #4	Amy Min Yang	04/15/13 12:17	Retrieve from Storage
MC19576-2.4	Amy Min Yang	GCMSV	04/15/13 12:17	Load on Instrument
MC19576-2.4	GCMSV	Kerry Ryan	04/16/13 11:38	Unload from Instrument
MC19576-2.4	Kerry Ryan	VOC Ref #4	04/16/13 11:39	Return to Storage
MC19576-2.5	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19576-2.5	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19576-3.1	Walk In Ref #22	Michael Rolo	04/09/13 07:47	Retrieve from Storage
MC19576-3.1	Michael Rolo		04/10/13 07:39	Depleted
MC19576-3.3	VOC Ref #4	Amy Min Yang	04/15/13 12:17	Retrieve from Storage
MC19576-3.3	Amy Min Yang	GCMSV	04/15/13 12:17	Load on Instrument
MC19576-3.3	GCMSV	Kerry Ryan	04/16/13 11:38	Unload from Instrument
MC19576-3.3	Kerry Ryan	VOC Ref #4	04/16/13 11:39	Return to Storage
MC19576-3.5	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19576-3.5	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19576-4.1	Walk In Ref #22	Michael Rolo	04/09/13 07:47	Retrieve from Storage
MC19576-4.1	Michael Rolo		04/10/13 07:39	Depleted
MC19576-4.3	VOC Ref #4	Amy Min Yang	04/15/13 12:17	Retrieve from Storage
MC19576-4.3	Amy Min Yang	GCMSV	04/15/13 12:17	Load on Instrument
MC19576-4.3	GCMSV	Kerry Ryan	04/16/13 11:38	Unload from Instrument
MC19576-4.3	Kerry Ryan	VOC Ref #4	04/16/13 11:39	Return to Storage
MC19576-4.5	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19576-4.5	Thomas Abrnzzise	VOC Ref #4	04/17/13 14:05	Retnrn to Storage

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Accutest Internal Chain of Custody

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/05/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19576-5.1	VOC Ref #4	Amy Min Yang	04/15/13 12:17	Retrieve from Storage
MC19576-5.1	Amy Min Yang	GCMSV	04/15/13 12:17	Load on Instrument
MC19576-5.1	GCMSV	Kerry Ryan	04/16/13 11:38	Unload from Instrument
MC19576-5.1	Kerry Ryan	VOC Ref #4	04/16/13 11:39	Return to Storage
MC19576-6.1	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19576-6.1	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage

New England ACCUTEST LABORATORIES

GC/MS Volatiles

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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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV694-MB	V17489.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

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-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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV694-MB	V17489.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

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	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	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	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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV694-MB	V17489.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	103%	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	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV694-BS	V17486.D	1	04/15/13	AMY	n/a	n/a	MSV694
MSV694-BSD	V17487.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	67.7	135* a	67.7	135* a	0	70-130/25
107-02-8	Acrolein	250	70.4	28* a	72.9	29* a	3	70-130/25
107-13-1	Acrylonitrile	50	56.7	113	55.6	111	2	70-130/25
71-43-2	Benzene	50	50.9	102	50.1	100	2	70-130/25
108-86-1	Bromobenzene	50	52.2	104	52.2	104	0	70-130/25
74-97-5	Bromochloromethane	50	51.7	103	51.3	103	1	70-130/25
75-27-4	Bromodichloromethane	50	52.4	105	51.8	104	1	70-130/25
75-25-2	Bromoform	50	43.7	87	43.5	87	0	70-130/25
74-83-9	Bromomethane	50	62.8	126	62.3	125	1	70-130/25
78-93-3	2-Bntanone (MEK)	50	59.0	118	58.0	116	2	70-130/25
104-51-8	n-Butylbenzene	50	56.0	112	55.1	110	2	70-130/25
135-98-8	sec-Bntylbenzene	50	52.0	104	51.4	103	1	70-130/25
98-06-6	tert-Butylbenzene	50	50.3	101	49.3	99	2	70-130/25
75-15-0	Carbon disulfide	50	54.2	108	52.8	106	3	70-130/25
56-23-5	Carbon tetrachloride	50	54.4	109	52.6	105	3	70-130/25
108-90-7	Chlorobenzene	50	50.7	101	50.3	101	1	70-130/25
75-00-3	Cbloroethane	50	58.4	117	57.4	115	2	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	45.1	90	44.7	89	1	70-130/25
67-66-3	Chloroform	50	50.7	101	49.8	100	2	70-130/25
74-87-3	Chloromethane	50	64.5	129	61.2	122	5	70-130/25
95-49-8	o-Cblorotoluene	50	50.1	100	49.9	100	0	70-130/25
106-43-4	p-Chlorotoluene	50	52.3	105	51.5	103	2	70-130/25
124-48-1	Dibromochloromethane	50	46.2	92	45.9	92	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	51.1	102	50.9	102	0	70-130/25
541-73-1	1,3-Dichlorobenzene	50	50.8	102	50.4	101	1	70-130/25
106-46-7	1,4-Dichlorobenzene	50	53.0	106	52.5	105	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	55.2	110	53.2	106	4	70-130/25
75-34-3	1,1-Dichloroethane	50	51.9	104	51.4	103	1	70-130/25
107-06-2	1,2-Dichloroethane	50	51.1	102	50.6	101	1	70-130/25
75-35-4	1,1-Dichloroethene	50	55.2	110	53.9	108	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	50.0	100	49.3	99	1	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	51.7	103	50.8	102	2	70-130/25
78-87-5	1,2-Dichloropropane	50	49.8	100	49.2	98	1	70-130/25
142-28-9	1,3-Dichloropropane	50	49.5	99	49.3	99	0	70-130/25
594-20-7	2,2-Dichloropropane	50	60.3	121	58.2	116	4	70-130/25
563-58-6	1,1-Dichloropropene	50	53.5	107	52.1	104	3	70-130/25

* = Ontside of Control Limits.

6.2.1

6

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV694-BS	V17486.D	1	04/15/13	AMY	n/a	n/a	MSV694
MSV694-BSD	V17487.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

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	51.8	104	50.7	101	2	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	48.6	97	47.7	95	2	70-130/25
123-91-1	1,4-Dioxane	250	222	89	224	90	1	70-130/25
97-63-2	Ethyl methacrylate	50	47.2	94	46.8	94	1	77-137/25
100-41-4	Ethylbenzene	50	53.8	108	53.2	106	1	70-130/25
87-68-3	Hexachlorobutadiene	50	52.1	104	51.3	103	2	70-130/25
591-78-6	2-Hexanone	50	55.3	111	54.9	110	1	70-130/25
98-82-8	Isopropylbenzene	50	51.6	103	51.0	102	1	70-130/25
99-87-6	p-Isopropyltoluene	50	57.2	114	56.1	112	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	44.7	89	45.0	90	1	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	43.5	87	43.7	87	0	70-130/25
74-95-3	Methylene bromide	50	51.3	103	50.9	102	1	70-130/25
75-09-2	Methylene chloride	50	51.4	103	50.7	101	1	70-130/25
91-20-3	Naphthalene	50	54.4	109	57.9	116	6	70-130/25
103-65-1	n-Propylbenzene	50	51.9	104	50.8	102	2	70-130/25
100-42-5	Styrene	50	53.4	107	53.0	106	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	54.9	110	54.5	109	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	55.0	110	55.6	111	1	70-130/25
127-18-4	Tetrachloroethene	50	52.9	106	51.9	104	2	70-130/25
108-88-3	Toluene	50	51.6	103	50.7	101	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	54.3	109	57.7	115	6	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	52.5	105	54.3	109	3	70-130/25
71-55-6	1,1,1-Trichloroethane	50	52.0	104	50.6	101	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	49.6	99	49.1	98	1	70-130/25
79-01-6	Trichloroethene	50	48.0	96	47.2	94	2	70-130/25
75-69-4	Trichlorofluoromethane	50	60.0	120	58.6	117	2	70-130/25
96-18-4	1,2,3-Trichloropropane	50	52.3	105	52.4	105	0	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	52.8	106	52.3	105	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	52.5	105	51.9	104	1	70-130/25
108-05-4	Vinyl Acetate	50	51.4	103	50.9	102	1	70-130/25
75-01-4	Vinyl chloride	50	51.4	103	50.8	102	1	70-130/25
	m,p-Xylene	100	106	106	105	105	1	70-130/25
95-47-6	o-Xylene	50	51.3	103	50.7	101	1	70-130/25
1330-20-7	Xylene (total)	150	158	105	156	104	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV694-BS	V17486.D	1	04/15/13	AMY	n/a	n/a	MSV694
MSV694-BSD	V17487.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	104%	70-130%
2037-26-5	Toluene-D8	104%	104%	70-130%
460-00-4	4-Bromofluorobenzene	91%	92%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19617-1MS	V17494.D	5	04/15/13	AMY	n/a	n/a	MSV694
MC19617-1MSD	V17495.D	5	04/15/13	AMY	n/a	n/a	MSV694
MC19617-1	V17491.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

CAS No.	Compound	MC19617-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	190	76	192	77	1	70-130/30
107-02-8	Acrolein	ND		1250	1030	82	1030	82	0	70-130/30
107-13-1	Acrylonitrile	ND		250	308	123	300	120	3	70-130/30
71-43-2	Benzene	ND		250	270	108	264	106	2	70-130/30
108-86-1	Bromobenzene	ND		250	274	110	271	108	1	70-130/30
74-97-5	Bromochloromethane	ND		250	272	109	270	108	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	272	109	269	108	1	70-130/30
75-25-2	Bromoform	ND		250	216	86	219	88	1	70-130/30
74-83-9	Bromomethane	ND		250	315	126	305	122	3	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	240	96	242	97	1	70-130/30
104-51-8	n-Butylbenzene	ND		250	296	118	298	119	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	276	110	272	109	1	70-130/30
98-06-6	tert-Butylbenzene	ND		250	267	107	270	108	1	70-130/30
75-15-0	Carbon disulfide	ND		250	285	114	281	112	1	70-130/30
56-23-5	Carbon tetrachloride	ND		250	280	112	277	111	1	70-130/30
108-90-7	Chlorobenzene	ND		250	268	107	264	106	2	70-130/30
75-00-3	Chloroethane	ND		250	290	116	284	114	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	62.2	25* [a]	11.9	5* [a]	136* [b]	70-130/30
67-66-3	Chloroform	ND		250	268	107	265	106	1	70-130/30
74-87-3	Chloromethane	ND		250	300	120	305	122	2	70-130/30
95-49-8	o-Chlorotoluene	ND		250	265	106	260	104	2	70-130/30
106-43-4	p-Chlorotoluene	ND		250	277	111	273	109	1	70-130/30
124-48-1	Dibromochloromethane	ND		250	235	94	236	94	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	267	107	269	108	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	269	108	266	106	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	279	112	275	110	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	281	112	276	110	2	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	279	112	274	110	2	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	270	108	266	106	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	294	118	290	116	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	53.4		250	312	103	308	102	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	277	111	272	109	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	265	106	261	104	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	261	104	260	104	0	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	312	125	306	122	2	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	285	114	278	111	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19617-1MS	V17494.D	5	04/15/13	AMY	n/a	n/a	MSV694
MC19617-1MSD	V17495.D	5	04/15/13	AMY	n/a	n/a	MSV694
MC19617-1	V17491.D	1	04/15/13	AMY	n/a	n/a	MSV694

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

CAS No.	Compound	MC19617-1 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	265	106	261	104	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	246	98	246	98	0	70-130/30
123-91-1	1,4-Dioxane	ND		1250	619	50* [a]	857	69* [a]	32* [b]	70-130/30
97-63-2	Ethyl methacrylate	ND		250	250	100	251	100	0	72-139/30
100-41-4	Ethylbenzene	ND		250	288	115	281	112	2	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	251	100	273	109	8	70-130/30
591-78-6	2-Hexanone	ND		250	237	95	241	96	2	70-130/30
98-82-8	Isopropylbenzene	ND		250	274	110	270	108	1	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	302	121	299	120	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	234	94	236	94	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	233	93	235	94	1	70-130/30
74-95-3	Methylene bromide	ND		250	268	107	267	107	0	70-130/30
75-09-2	Methylene chloride	ND		250	273	109	267	107	2	70-130/30
91-20-3	Naphthalene	ND		250	223	89	291	116	26	70-130/30
103-65-1	n-Propylbenzene	ND		250	276	110	270	108	2	70-130/30
100-42-5	Styrene	ND		250	282	113	280	112	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	287	115	282	113	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	293	117	296	118	1	70-130/30
127-18-4	Tetrachloroethene	ND		250	281	112	275	110	2	70-130/30
108-88-3	Toluene	ND		250	273	109	268	107	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	219	88	287	115	27	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	247	99	280	112	13	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	270	108	268	107	1	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	257	103	256	102	0	70-130/30
79-01-6	Trichloroethene	ND		250	255	102	249	100	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	297	119	290	116	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	274	110	277	111	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	277	111	275	110	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	278	111	275	110	1	70-130/30
108-05-4	Vinyl Acetate	ND		250	273	109	272	109	0	70-130/30
75-01-4	Vinyl chloride	32.9		250	275	97	270	95	2	70-130/30
	m,p-Xylene	ND		500	566	113	553	111	2	70-130/30
95-47-6	o-Xylene	ND		250	269	108	267	107	1	70-130/30
1330-20-7	Xylene (total)	ND		750	835	111	820	109	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19617-1MS	V17494.D	5	04/15/13	AMY	n/a	n/a	MSV694
MC19617-1MSD	V17495.D	5	04/15/13	AMY	n/a	n/a	MSV694
MC19617-1	V17491.D	1	04/15/13	AMY	n/a	n/a	MSV694

The QC reported here applies to the following samples: Method: SW846 8260B

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-5

CAS No.	Surrogate Recoveries	MS	MSD	MC19617-1	Limits
1868-53-7	Dibromofluoromethane	105%	106%	100%	70-130%
2037-26-5	Toluene-D8	104%	104%	103%	70-130%
460-00-4	4-Bromofluorobenzene	92%	92%	94%	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.

Volatile Internal Standard Area Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV694-CC692	Injection Date:	04/15/13
Lab File ID:	VI7486.D	Injection Time:	09:11
Instrument ID:	GCMSV	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	583433	6.53	861866	7.72	363908	11.06	436447	13.28	92511	3.48
Upper Limit [a]	1166866	7.03	1723732	8.22	727816	11.56	872894	13.78	185022	3.98
Lower Limit [b]	291717	6.03	430933	7.22	181954	10.56	218224	12.78	46256	2.98
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV694-BS	583433	6.53	861866	7.72	363908	11.06	436447	13.28	92511	3.48
MSV694-BSD	576527	6.53	851358	7.72	357092	11.06	427563	13.28	94235	3.48
MSV694-MB	577772	6.53	854221	7.72	356211	11.06	402693	13.28	89296	3.48
ZZZZZZ	565688	6.53	843952	7.72	351215	11.06	395587	13.28	85162	3.48
MC19617-1	558105	6.53	826081	7.72	344742	11.06	388889	13.28	88310	3.49
ZZZZZZ	549239	6.54	817930	7.72	338100	11.06	382853	13.28	73320	3.49
ZZZZZZ	557417	6.54	825199	7.72	340780	11.06	393885	13.28	69193	3.49
MC19617-1MS	559242	6.53	826829	7.72	345867	11.06	412142	13.28	73761	3.48
MC19617-1MSD	560282	6.54	833965	7.72	349761	11.07	417629	13.28	80028	3.49
ZZZZZZ	547242	6.54	823062	7.72	339463	11.06	387848	13.28	80765	3.49
MC19576-5	549549	6.54	820403	7.72	340953	11.07	380467	13.28	79792	3.49
MC19576-1	542805	6.54	807670	7.72	334720	11.07	381934	13.28	83663	3.49
MC19576-2	544803	6.54	815222	7.72	339278	11.07	385152	13.28	87719	3.49
MC19576-3	535722	6.54	802979	7.72	332961	11.07	374156	13.28	85167	3.49
MC19576-4	539953	6.53	810262	7.72	338299	11.07	377604	13.28	82767	3.48
ZZZZZZ	540409	6.54	805682	7.72	334537	11.07	374280	13.28	83046	3.48
ZZZZZZ	528840	6.54	794749	7.72	330249	11.07	370547	13.28	82938	3.48
ZZZZZZ	520418	6.54	786076	7.72	326448	11.07	367052	13.28	84859	3.49
ZZZZZZ	525410	6.54	796422	7.72	330597	11.07	370163	13.28	85635	3.49
ZZZZZZ	507939	6.54	766615	7.72	320480	11.07	362085	13.28	81694	3.49
ZZZZZZ	503957	6.54	772879	7.72	322609	11.07	361015	13.28	79201	3.49
ZZZZZZ	504611	6.54	768959	7.72	319451	11.07	355082	13.28	79866	3.49
ZZZZZZ	514117	6.53	776866	7.72	324603	11.06	361948	13.28	79654	3.48
ZZZZZZ	512564	6.53	777731	7.72	324837	11.06	361193	13.28	77131	3.48
ZZZZZZ	510127	6.53	771393	7.72	323356	11.06	360642	13.28	77155	3.49

IS 1 = Pentafluorobeuzene
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; Retentiou time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19576-1	V17498.D	102.0	103.0	93.0
MC19576-2	V17499.D	102.0	103.0	93.0
MC19576-3	V17500.D	102.0	103.0	95.0
MC19576-4	V17501.D	103.0	103.0	95.0
MC19576-5	V17497.D	102.0	103.0	95.0
MC19617-1MS	V17494.D	105.0	104.0	92.0
MC19617-1MSD	V17495.D	106.0	104.0	92.0
MSV694-BS	V17486.D	104.0	104.0	91.0
MSV694-BSD	V17487.D	104.0	104.0	92.0
MSV694-MB	V17489.D	101.0	103.0	94.0

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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxaua, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32575-MB	W11048.D	1	04/11/13	KR	04/09/13	OP32575	MSW518

The QC reported here applies to the following samples: Method: SW846 8270C

MC19576-1, MC19576-2, MC19576-3, MC19576-4

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl pheuol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ng/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32575-MB	W11048.D	1	04/11/13	KR	04/09/13	OP32575	MSW518

The QC reported here applies to the following samples: Method: SW846 8270C

MC19576-1, MC19576-2, MC19576-3, MC19576-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ng/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	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	78%	15-110%
4165-60-0	Nitrobenzene-d5	72%	30-130%
321-60-8	2-Fluorohiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	102%	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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32577-MB	I82500.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19576-1, MC19576-2, MC19576-3, MC19576-4

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	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	64%	30-130%
321-60-8	2-Fluorobiphenyl	62%	30-130%
1718-51-0	Terphenyl-d14	85%	30-130%

Blank Spike Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32575-BS	W11049.D	1	04/11/13	KR	04/09/13	OP32575	MSW518

The QC reported here applies to the following samples: Method: SW846 8270C

MC19576-1, MC19576-2, MC19576-3, MC19576-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	34.0	34	30-130
95-57-8	2-Chlorophenol	100	51.3	51	30-130
59-50-7	4-Chloro-3-methyl phenol	100	66.9	67	30-130
120-83-2	2,4-Dichlorophenol	100	62.8	63	30-130
105-67-9	2,4-Dimethylphenol	100	50.1	50	30-130
51-28-5	2,4-Dinitrophenol	100	76.8	77	30-130
534-52-1	4,6-Dinitro-o-cresol	100	83.3	83	30-130
95-48-7	2-Methylphenol	100	53.6	54	30-130
	3&4-Methylphenol	100	95.5	96	30-130
88-75-5	2-Nitrophenol	100	62.2	62	30-130
100-02-7	4-Nitrophenol	100	50.5	51	30-130
87-86-5	Pentachlorophenol	100	78.1	78	30-130
108-95-2	Phenol	100	24.5	25* [a]	30-130
95-95-4	2,4,5-Trichlorophenol	100	78.0	78	30-130
88-06-2	2,4,6-Trichlorophenol	100	72.6	73	30-130
62-53-3	Aniline	50	15.4	31* [a]	40-140
101-55-3	4-Bromophenyl phenyl ether	50	40.8	82	40-140
85-68-7	Butyl benzyl phthalate	50	38.2	76	40-140
100-51-6	Benzyl Alcohol	50	5.0	10* [a]	40-140
91-58-7	2-Chloronaphthalene	100	65.5	66	40-140
106-47-8	4-Chloroaniline	50	27.3	55	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	32.2	64	40-140
111-44-4	bis(2-Chloroethyl)ether	50	31.4	63	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	32.6	65	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	39.7	79	40-140
122-66-7	1,2-Diphenylhydrazine	50	42.6	85	40-140
121-14-2	2,4-Dinitrotolnene	100	83.5	84	40-140
606-20-2	2,6-Dinitrotoluene	100	80.5	81	40-140
91-94-1	3,3'-Dichlorobenzidine	50	46.8	94	40-140
132-64-9	Dibenzofuran	50	36.9	74	40-140
84-74-2	Di-n-botyl phthalate	50	39.8	80	40-140
117-84-0	Di-n-octyl phthalate	50	52.5	105	40-140
84-66-2	Diethyl phthalate	50	35.2	70	40-140
131-11-3	Dimethyl phthalate	50	22.6	45	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	46.9	94	40-140
118-74-1	Hexachlorobenzene	100	85.9	86	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32575-BS	W11049.D	1	04/11/13	KR	04/09/13	OP32575	MSW518

The QC reported here applies to the following samples: Method: SW846 8270C

MC19576-1, MC19576-2, MC19576-3, MC19576-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	100	31.9	32* a	40-140
67-72-1	Hexachloroethane	100	41.6	42	40-140
78-59-1	Isophorone	100	71.0	71	40-140
88-74-4	2-Nitroaniline	50	41.4	83	40-140
99-09-2	3-Nitroaniline	50	38.4	77	40-140
100-01-6	4-Nitroaniline	50	41.1	82	40-140
98-95-3	Nitrobenzene	100	60.3	60	40-140
62-75-9	n-Nitrosodimethylamine	50	19.5	39* a	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	32.0	64	40-140
86-30-6	N-Nitrosodiphenylamine	50	42.0	84	40-140
110-86-1	Pyridine	50	15.6	31* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	37%	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	65%	30-130%
321-60-8	2-Fluorobiphenyl	75%	30-130%
1718-51-0	Terphenyl-d14	102%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32577-BS	I82501.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19576-1, MC19576-2, MC19576-3, MC19576-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	33.4	67	40-140
208-96-8	Acenaphthylene	50	19.5	39* a	40-140
120-12-7	Anthracene	50	38.3	77	40-140
56-55-3	Benzo(a)anthracene	50	42.3	85	40-140
50-32-8	Benzo(a)pyrene	50	36.2	72	40-140
205-99-2	Benzo(b)fluoranthene	50	39.1	78	40-140
191-24-2	Benzo(g,h,i)perylene	50	43.7	87	40-140
207-08-9	Benzo(k)fluoranthene	50	41.4	83	40-140
218-01-9	Chrysene	50	39.8	80	40-140
53-70-3	Dibenzo(a,h)anthracene	50	39.5	79	40-140
206-44-0	Fluoranthene	50	41.2	82	40-140
86-73-7	Fluorene	50	34.7	69	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.0	78	40-140
90-12-0	1-Methylnaphthalene	50	29.7	59	40-140
91-57-6	2-Methylnaphthalene	50	28.7	57	40-140
85-01-8	Phenanthrene	50	39.2	78	40-140
129-00-0	Pyrene	50	40.4	81	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	59%	30-130%
321-60-8	2-Fluorobiphenyl	60%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32575-MS	W11050.D	1	04/11/13	KR	04/09/13	OP32575	MSW518
OP32575-MSD	W11051.D	1	04/11/13	KR	04/09/13	OP32575	MSW518
MC19626-15	W11052.D	1	04/11/13	KR	04/09/13	OP32575	MSW518

The QC reported here applies to the following samples: Method: SW846 8270C

MC19576-1, MC19576-2, MC19576-3, MC19576-4

CAS No.	Compound	MC19626-15 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	37.6	38	37.9	38	1	30-130/20
95-57-8	2-Chlorophenol	ND		100	62.0	62	62.6	63	1	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	76.6	77	77.2	77	1	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	75.7	76	76.4	76	1	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	64.1	64	66.6	67	4	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	80.3	80	83.0	83	3	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	79.1	79	85.8	86	8	30-130/20
95-48-7	2-Methylphenol	ND		100	59.7	60	61.7	62	3	30-130/20
	3&4-Methylphenol	ND		100	117	117	119	119	2	30-130/20
88-75-5	2-Nitrophenol	ND		100	73.2	73	75.2	75	3	30-130/20
100-02-7	4-Nitrophenol	ND		100	51.7	52	52.2	52	1	30-130/20
87-86-5	Pentachlorophenol	ND		100	71.4	71	76.4	76	7	30-130/20
108-95-2	Phenol	ND		100	30.0	30	29.3	29* [a]	2	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	84.8	85	86.5	87	2	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	77.3	77	81.2	81	5	30-130/20
62-53-3	Aniline	ND		50	18.3	37* [a]	18.3	37* [a]	0	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	41.7	83	40.9	82	2	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	44.5	89	41.9	84	6	40-140/20
100-51-6	Benzyl Alcohol	ND		50	6.5	13* [a]	5.5	11* [a]	17	40-140/20
91-58-7	2-Chloronaphthalene	ND		100	73.2	73	72.6	73	1	40-140/20
106-47-8	4-Chloroaniline	ND		50	31.3	63	31.5	63	1	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	37.8	76	36.8	74	3	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	36.9	74	36.9	74	0	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	38.1	76	38.3	77	1	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	40.8	82	39.8	80	2	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	42.4	85	43.7	87	3	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		100	86.2	86	87.4	87	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		100	113	113	115	115	2	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	43.5	87	43.4	87	0	40-140/20
132-64-9	Dibenzofuran	ND		50	38.9	78	38.4	77	1	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	41.6	83	40.7	81	2	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	47.9	96	47.1	94	2	40-140/20
84-66-2	Diethyl phthalate	ND		50	40.5	81	38.5	77	5	40-140/20
131-11-3	Dimethyl phthalate	ND		50	36.9	74	31.3	63	16	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	42.4	85	42.2	84	0	40-140/20
118-74-1	Hexachlorobenzeue	ND		100	89.0	89	89.3	89	0	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32575-MS	W11050.D	1	04/11/13	KR	04/09/13	OP32575	MSW518
OP32575-MSD	W11051.D	1	04/11/13	KR	04/09/13	OP32575	MSW518
MC19626-15	W11052.D	1	04/11/13	KR	04/09/13	OP32575	MSW518

The QC reported here applies to the following samples: Method: SW846 8270C

MC19576-1, MC19576-2, MC19576-3, MC19576-4

CAS No.	Compound	MC19626-15 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		100	40.0	40	37.6	38* [a]	6	40-140/20
67-72-1	Hexachloroethane	ND		100	49.0	49	49.0	49	0	40-140/20
78-59-1	Isophorone	ND		100	81.4	81	80.8	81	1	40-140/20
88-74-4	2-Nitroaniline	ND		50	42.4	85	42.4	85	0	40-140/20
99-09-2	3-Nitroaniline	ND		50	36.9	74	37.6	75	2	40-140/20
100-01-6	4-Nitroaniline	ND		50	40.4	81	41.0	82	1	40-140/20
98-95-3	Nitrobenzene	ND		100	70.0	70	71.5	72	2	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	22.4	45	22.3	45	0	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	37.1	74	36.1	72	3	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	41.9	84	42.0	84	0	40-140/20
110-86-1	Pyridine	ND		50	18.4	37* [a]	17.7	35* [a]	4	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19626-15	Limits
367-12-4	2-Fluorophenol	42%	42%	37%	15-110%
4165-62-2	Phenol-d5	31%	30%	27%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	80%	75%	15-110%
4165-60-0	Nitrobenzene-d5	75%	74%	65%	30-130%
321-60-8	2-Fluorobiphenyl	83%	80%	68%	30-130%
1718-51-0	Terphenyl-d14	82%	84%	92%	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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32577-MS	I82502.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068
OP32577-MSD	I82503.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068
MC19577-2	I82504.D	1	04/10/13	NS	04/09/13	OP32577	MSI3068

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19576-1, MC19576-2, MC19576-3, MC19576-4

CAS No.	Compound	MC19577-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	35.8	72	35.3	71	1	40-140/20
208-96-8	Acenaphthylene	ND		50	20.6	41	18.5	37* [a]	11	40-140/20
120-12-7	Anthracene	0.063	J	50	38.5	77	39.5	79	3	40-140/20
56-55-3	Benzo(a)anthracene	0.092		50	41.3	82	39.0	78	6	40-140/20
50-32-8	Benzo(a)pyrene	0.051	J	50	35.3	70	33.0	66	7	40-140/20
205-99-2	Benzo(b)fluoranthene	0.052		50	38.6	77	35.0	70	10	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	41.5	83	38.5	77	8	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	39.6	79	36.8	74	7	40-140/20
218-01-9	Chrysene	ND		50	38.8	78	36.5	73	6	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	37.5	75	32.6	65	14	40-140/20
206-44-0	Fluoranthene	0.12		50	40.8	81	40.2	80	1	40-140/20
86-73-7	Fluorene	ND		50	36.5	73	36.7	73	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	36.9	74	32.7	65	12	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	33.8	68	34.3	69	1	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	33.0	66	32.6	65	1	40-140/20
85-01-8	Phenanthrene	0.19		50	38.9	77	39.2	78	1	40-140/20
129-00-0	Pyrene	0.17		50	40.2	80	39.7	79	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19577-2	Limits
4165-60-0	Nitrobenzene-d5	68%	67%	56%	30-130%
321-60-8	2-Fluorobiphenyl	68%	63%	59%	30-130%
1718-51-0	Terphenyl-d14	69%	67%	91%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3068-CC3044	Injection Date:	04/10/13
Lab File ID:	I82490.D	Injection Time:	15:57
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	188879	3.41	479349	4.37	272937	5.77	516525	7.01	409643	9.74	775854	11.13
Upper Limit [a]	377758	3.91	958698	4.87	545874	6.27	1033050	7.51	819286	10.24	1551708	11.63
Lower Limit [b]	94440	2.91	239675	3.87	136469	5.27	258263	6.51	204822	9.24	387927	10.63
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
OP32586-MB	186148	3.41	476290	4.37	263071	5.77	480709	7.01	350340	9.73	671659	11.12
OP32586-BS	192086	3.41	528552	4.37	260649	5.77	524303	7.01	374850	9.74	713553	11.13
OP32586-MS	187193	3.41	478044	4.37	238055	5.77	427451	7.01	330004	9.74	621086	11.13
OP32586-MSD	211906	3.41	526096	4.38	263765	5.77	454889	7.01	330819	9.74	669284	11.13
ZZZZZZ	186206	3.41	491322	4.37	213083	5.77	395765	7.01	266336	9.73	543806	11.13
ZZZZZZ	155269	3.41	431722	4.37	215516	5.77	317984	7.01	277041	9.73	515007	11.12
MC19527-3	142609	3.41	387857	4.37	196669	5.77	341084	7.01	294610	9.73	554903	11.12
ZZZZZZ	154167	3.41	413280	4.37	205626	5.77	356914	7.01	254098	9.73	537064	11.12
ZZZZZZ	213984	3.41	536884	4.37	271355	5.77	447465	7.01	318578	9.73	574154	11.13
OP32577-MB	126658	3.41	348820	4.37	182205	5.77	319506	7.01	269856	9.73	513783	11.12
OP32577-BS	132629	3.41	346784	4.37	182291	5.77	335337	7.01	264159	9.74	497931	11.13
OP32577-MS	139488	3.41	360483	4.37	185990	5.77	337980	7.01	272712	9.73	519548	11.13
OP32577-MSD	139698	3.41	358807	4.37	198133	5.77	390590	7.01	296528	9.74	548631	11.13
MC19577-2	129946	3.41	370486	4.37	217293	5.77	312725	7.01	316696	9.73	634543	11.12
ZZZZZZ	164987	3.41	430306	4.37	188239	5.77	338643	7.01	286448	9.73	632424	11.12
ZZZZZZ	128144	3.41	348914	4.37	173447	5.77	300600	7.01	244112	9.73	475987	11.12
MC19576-1	141750	3.41	365913	4.37	184192	5.77	307478	7.01	249079	9.73	485852	11.13
MC19576-2	119266	3.41	320801	4.37	161925	5.77	289614	7.01	238170	9.73	459277	11.13
MC19576-3	124868	3.41	331919	4.37	172362	5.77	300529	7.01	247128	9.73	478256	11.13
MC19576-4	118084	3.41	324107	4.37	167458	5.77	296698	7.01	255628	9.73	492102	11.13
ZZZZZZ	135670	3.41	365003	4.37	189132	5.77	333927	7.01	279191	9.73	526390	11.13
ZZZZZZ	116884	3.41	305680	4.37	164128	5.77	298670	7.01	254730	9.73	492064	11.13
ZZZZZZ	106302	3.41	288524	4.37	155254	5.77	291534	7.01	262476	9.73	507634	11.13
ZZZZZZ	139095	3.41	381086	4.37	205056	5.77	385728	7.01	341385	9.73	650933	11.12
ZZZZZZ	172947	3.41	502911	4.37	257890	5.77	454005	7.01	361338	9.73	676768	11.13
ZZZZZZ	166839	3.42	530891	4.38	265341	5.77	477038	7.01	382365	9.73	714571	11.12
ZZZZZZ	157846	3.41	460984	4.38	251427	5.77	456852	7.01	372604	9.73	702470	11.13
ZZZZZZ	142605	3.41	388006	4.38	219905	5.78	386012	7.03	321655	9.74	606486	11.13
ZZZZZZ	150360	3.41	393327	4.37	206870	5.77	381759	7.01	305710	9.73	632170	11.13

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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3068-CC3044	Injection Date:	04/10/13
Lab File ID:	I82490.D	Injection Time:	15:57
Instrument ID:	GCMSI	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 minntes.

7.4.1

7

Semivolatile Internal Standard Area Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW518-CC505	Injection Date:	04/11/13
Lab File ID:	W11047.D	Injection Time:	12:14
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	61492	3.65	235731	4.64	156384	6.06	273268	7.35	338493	10.23	308530	11.80
Upper Limit [a]	122984	4.15	471462	5.14	312768	6.56	546536	7.85	676986	10.73	617060	12.30
Lower Limit [b]	30746	3.15	117866	4.14	78192	5.56	136634	6.85	169247	9.73	154265	11.30
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
OP32575-MB	51134	3.65	193283	4.63	123573	6.06	221195	7.35	262862	10.21	250881	11.80
OP32576-MB	51134	3.65	193283	4.63	123573	6.06	221195	7.35	262862	10.21	250881	11.80
OP32576-BS	51004	3.65	189668	4.63	121074	6.06	217563	7.35	260062	10.21	240427	11.80
OP32575-BS	51004	3.65	189668	4.63	121074	6.06	217563	7.35	260062	10.21	240427	11.80
OP32576-MS	51820	3.65	195264	4.63	127426	6.06	225103	7.35	274516	10.22	252630	11.80
OP32575-MS	51820	3.65	195264	4.63	127426	6.06	225103	7.35	274516	10.22	252630	11.80
OP32576-MSD	48469	3.65	181266	4.63	118727	6.06	209189	7.35	254310	10.22	235082	11.80
OP32575-MSD	48469	3.65	181266	4.63	118727	6.06	209189	7.35	254310	10.22	235082	11.80
MC19626-15	51875	3.65	193815	4.63	124830	6.06	223130	7.35	263293	10.21	249438	11.79
MC19626-16	51875	3.65	193815	4.63	124830	6.06	223130	7.35	263293	10.21	249438	11.79
ZZZZZZ	51231	3.65	190489	4.63	122288	6.06	220782	7.34	255987	10.21	245984	11.79

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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW521-CC505	Injection Date:	04/12/13
Lab File ID:	W11107.D	Injection Time:	14:30
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	84549	3.63	321678	4.62	215424	6.05	376170	7.33	473246	10.20	438946	11.77
Upper Limit [a]	169098	4.13	643356	5.12	430848	6.55	752340	7.83	946492	10.70	877892	12.27
Lower Limit [b]	42275	3.13	160839	4.12	107712	5.55	188085	6.83	236623	9.70	219473	11.27
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	78247	3.63	297321	4.62	191716	6.04	343596	7.32	401335	10.19	387025	11.77
ZZZZZZ	84073	3.63	315672	4.62	206239	6.04	367267	7.32	430076	10.19	418445	11.77
ZZZZZZ	80322	3.63	307353	4.62	198174	6.04	349001	7.32	408786	10.19	396579	11.77
ZZZZZZ	80552	3.63	309983	4.62	202919	6.04	361353	7.32	423466	10.19	409412	11.77
ZZZZZZ	78320	3.63	297803	4.62	192284	6.04	337834	7.32	393289	10.19	379148	11.77
ZZZZZZ	77807	3.63	296576	4.62	190855	6.04	341439	7.32	400370	10.19	386034	11.77
ZZZZZZ	78697	3.63	299139	4.62	193163	6.04	337846	7.32	392469	10.19	384481	11.77
ZZZZZZ	78578	3.63	299146	4.62	195819	6.04	343470	7.32	401027	10.19	388358	11.77
ZZZZZZ	77025	3.63	287559	4.62	187184	6.04	331933	7.32	388370	10.19	371815	11.77
ZZZZZZ	78798	3.63	299216	4.62	191329	6.04	337666	7.32	395903	10.19	378123	11.77
ZZZZZZ	79362	3.63	295626	4.62	191710	6.04	336771	7.32	387074	10.19	378834	11.77
ZZZZZZ	74513	3.63	281792	4.62	180095	6.04	320988	7.32	372188	10.19	357212	11.77
MC19576-1	84234	3.63	318822	4.62	209502	6.04	378510	7.32	451438	10.19	428763	11.77
MC19576-2	85361	3.63	322090	4.62	211813	6.04	382237	7.32	444844	10.19	429737	11.77
MC19576-3	87109	3.63	326457	4.62	213346	6.04	381642	7.32	449146	10.19	431882	11.77
MC19576-4	86160	3.63	326394	4.62	211730	6.04	375785	7.32	438858	10.19	426270	11.77
MC19597-35	72689	3.63	273509	4.62	181661	6.04	314582	7.32	374249	10.19	371829	11.77
ZZZZZZ	76005	3.63	287593	4.62	180283	6.04	312693	7.32	355676	10.19	344946	11.77
ZZZZZZ	74044	3.63	276530	4.62	179559	6.04	311078	7.32	360283	10.19	358255	11.77
ZZZZZZ	72364	3.63	270007	4.62	175712	6.04	305311	7.32	356327	10.19	351220	11.77
ZZZZZZ	72150	3.63	277763	4.62	180442	6.04	321173	7.32	385840	10.19	376553	11.77
ZZZZZZ	74438	3.63	280554	4.62	182233	6.04	320742	7.32	372265	10.19	363876	11.77
ZZZZZZ	75289	3.63	279740	4.62	181842	6.04	319056	7.32	374220	10.19	365335	11.77
ZZZZZZ	71272	3.63	269259	4.62	172705	6.04	301788	7.32	342220	10.19	340027	11.77
ZZZZZZ	73282	3.63	280542	4.62	180723	6.04	318419	7.32	371174	10.19	361128	11.77
ZZZZZZ	73691	3.63	276707	4.62	179718	6.04	316474	7.32	371697	10.19	367091	11.77
ZZZZZZ	73921	3.63	280761	4.62	180457	6.04	321153	7.32	373192	10.19	364063	11.77
ZZZZZZ	71484	3.63	274018	4.62	175188	6.04	317589	7.32	366922	10.19	359593	11.77
ZZZZZZ	72345	3.63	272602	4.62	176397	6.04	306600	7.32	360990	10.19	349153	11.77

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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW521-CC505	Injection Date:	04/12/13
Lab File ID:	W11107.D	Injection Time:	14:30
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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19576-1	W11120.D	22.0	17.0	61.0	68.0	70.0	87.0
MC19576-2	W11121.D	29.0	24.0	69.0	70.0	69.0	77.0
MC19576-3	W11122.D	24.0	18.0	64.0	71.0	70.0	72.0
MC19576-4	W11123.D	27.0	20.0	68.0	72.0	72.0	82.0
OP32575-BS	W11049.D	37.0	27.0	80.0	65.0	75.0	102.0
OP32575-MB	W11048.D	40.0	29.0	78.0	72.0	74.0	102.0
OP32575-MS	W11050.D	42.0	31.0	72.0	75.0	83.0	82.0
OP32575-MSD	W11051.D	42.0	30.0	80.0	74.0	80.0	84.0

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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19576-1	I82507.D	63.0	61.0	69.0
MC19576-2	I82508.D	62.0	58.0	63.0
MC19576-3	I82509.D	65.0	60.0	58.0
MC19576-4	I82510.D	65.0	60.0	67.0
OP32577-BS	I82501.D	59.0	60.0	80.0
OP32577-MB	I82500.D	64.0	62.0	85.0
OP32577-MS	I82502.D	68.0	68.0	69.0
OP32577-MSD	I82503.D	67.0	63.0	67.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

7.5.2

7

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

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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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-MB	BK23581.D	1	04/16/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-6

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)	109%	36-173%
460-00-4	Bromofluorobenzene (S)	113%	36-173%

Blank Spike Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-BS	BK23582.D	1	04/16/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.076	107	60-140
106-93-4	1,2-Dibromoethane	0.071	0.092	130	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	108%	36-173%
460-00-4	Bromofluorobenzene (S)	112%	36-173%

8.2.1

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* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-MS	BK23583.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
OP32677-MSD	BK23584.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
MC19670-4	BK23585.D	1	04/17/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19576-1, MC19576-2, MC19576-3, MC19576-4, MC19576-6

CAS No.	Compound	MC19670-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
96-12-8	1,2-Dihromo-3-chloropropane	ND		0.0694	0.078	112	0.080	116	3	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0694	0.086	124	0.091	132	6	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19670-4	Limits
460-00-4	Bromofluorobenzene (S)	117%	122%	108%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	125%	114%	36-173%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19576-1	BK23586.D	119.0	125.0
MC19576-2	BK23587.D	116.0	120.0
MC19576-3	BK23588.D	116.0	116.0
MC19576-4	BK23589.D	113.0	116.0
MC19576-6	BK23590.D	117.0	125.0
OP32677-BS	BK23582.D	108.0	112.0
OP32677-MB	BK23581.D	109.0	113.0
OP32677-MS	BK23583.D	117.0	121.0
OP32677-MSD	BK23584.D	122.0	125.0

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: MC19576
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK829-ICC829	Injection Date:	04/16/13
Lab File ID:	BK23576.D	Injection Time:	21:25
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.44	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP32677-MB	BK23581.D	04/16/13	23:29	4.45	4.88
OP32677-BS	BK23582.D	04/16/13	23:56	4.45	4.88
OP32677-MS	BK23583.D	04/17/13	00:22	4.45	4.88
OP32677-MSD	BK23584.D	04/17/13	00:48	4.45	4.88
MC19670-4	BK23585.D	04/17/13	01:15	4.45	4.88
MC19576-1	BK23586.D	04/17/13	01:42	4.45	4.88
MC19576-2	BK23587.D	04/17/13	02:09	4.45	4.88
MC19576-3	BK23588.D	04/17/13	02:35	4.45	4.88
MC19576-4	BK23589.D	04/17/13	03:01	4.45	4.88
MC19576-6	BK23590.D	04/17/13	03:28	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.1

Roxana Groundwater Quarterly – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19612

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/7/2013

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

Sample Identification	Sample Identification
ROST3MW-ROX-040513	MW22-ROX-040513
MW24-ROX-040513	TB-ROX-040513-HCL
TB-ROX-040513-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, SVOC, and PAH LCS/LCSD recoveries and LCS/LCSD RPDs were outside evaluation criteria. Acetone was detected in the trip blank, and bis(2-ethylhexyl)phthalate was detected in the method blank. Internal standard area recovery for tert butyl alcohol-d_9 in Run#1 results for sample MW22-ROX-040513 was outside evaluation criteria. Sample MW22-ROX-040513 was diluted due to high levels of VOCs and SVOCs. Additionally, the initial calibration verification for acetone and 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 0.2ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required. Additionally, sample MW24-ROX-040513 was logged in correctly by the laboratory using sample bottle designations due to an inadvertent transcription error on the COC. The laboratory confirmed with URS on April 10, 2013; 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

Blank ID	Parameter	Analyte	Concentration/ Amount
TB-ROX-040513-HCL	VOCs	Acetone	3.2 ug/L
OP32596-MB	SVOCs	bis(2-Ethylhexyl)phthalate	0.65 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.

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
MSV696-BS/BSD	VOCs	Acetone	**140/140**	0	70-130/25
MSV696-BS/BSD	VOCs	Acrolein	**39/39**	2	70-130/25
MSV696-BS/BSD	VOCs	Bromomethane	**136**/129	5	70-130/25
MSV696-BS/BSD	VOCs	Naphthalene	124/**132**	6	70-130/25
MSH1998-BS/BSD	VOCs	Acetone	**138**/129	7	70-130/25
MSH1998-BS/BSD	VOCs	Acrolein	**52/52**	1	70-130/25
OP32597-BS	PAHs	Acenaphthylene	**38**	NA	40-140
OP32596-BS/BSD	SVOCs	Phenol	**25/28**	12	30-130/20
OP32596-BS/BSD	SVOCs	Aniline	**36/34**	7	40-140/20
OP32596-BS/BSD	SVOCs	Dimethyl phthalate	50/69	**31**	40-140/20
OP32596-BS/BSD	SVOCs	Hexachlorocyclopentadiene	**34**/42	19	40-140/20
OP32596-BS/BSD	SVOCs	n-Nitrosodimethylamine	**38/39**	2	40-140/20
OP32596-BS/BSD	SVOCs	Pyridine	**27/26**	4	40-140/20

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 MSV696-BS/BSD was associated with trip blank quality control samples and is not qualified.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-040513	VOCs	Acrolein	**UJ**
ROST3MW-ROX-040513	VOCs	Naphthalene	**J**
MW22-ROX-040513	VOCs	Acrolein	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW22-ROX-040513	VOCs	Naphthalene	**J**
MW24-ROX-040513	VOCs	Acrolein	**UJ**
ROST3MW-ROX-040513	PAHs	Acenaphthylene	**UJ**
MW22-ROX-040513	PAHs	Acenaphthylene	**J**
MW24-ROX-040513	PAHs	Acenaphthylene	**UJ**
ROST3MW-ROX-040513	SVOCs	Phenol	**UJ**
ROST3MW-ROX-040513	SVOCs	Aniline	**UJ**
ROST3MW-ROX-040513	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST3MW-ROX-040513	SVOCs	n-Nitrosodimethylamine	**UJ**
ROST3MW-ROX-040513	SVOCs	Pyridine	**UJ**
MW22-ROX-040513	SVOCs	Phenol	**J**
MW22-ROX-040513	SVOCs	Aniline	**UJ**
MW22-ROX-040513	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW22-ROX-040513	SVOCs	n-Nitrosodimethylamine	**UJ**
MW22-ROX-040513	SVOCs	Pyridine	**UJ**
MW24-ROX-040513	SVOCs	Phenol	**UJ**
MW24-ROX-040513	SVOCs	Aniline	**UJ**
MW24-ROX-040513	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW24-ROX-040513	SVOCs	n-Nitrosodimethylamine	**UJ**
MW24-ROX-040513	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
MW22-ROX-040513 Run#1	VOCs	Tert butyl alcohol-d_9	**160710**	39968-159872

Analytical data that required qualification based on internal standard data are included in the table below. Analytical data reported as non-detect and associated with internal standard recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Field ID	Parameter	Analyte	Qualification
MW22-ROX-040513 Run#1	VOCs	n-Butylbenzene	**J**
MW22-ROX-040513 Run#1	VOCs	sec-Butylbenzene	**J**

Field ID	Parameter	Analyte	Qualification
MW22-ROX-040513 Run#1	VOCs	tert-Butylbenzene	**J**
MW22-ROX-040513 Run#1	VOCs	Isopropylbenzene	**J**
MW22-ROX-040513 Run#1	VOCs	p-Isopropyltoluene	**J**
MW22-ROX-040513 Run#1	VOCs	4-Methyl-2-pentanone (MIBK)	**J**
MW22-ROX-040513 Run#1	VOCs	n-Propylbenzene	**J**
MW22-ROX-040513 Run#1	VOCs	1,3,5-Trimethylbenzene	**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

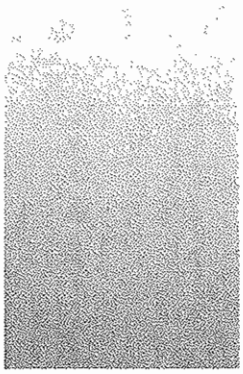
Were additional qualifications applied?

Yes, the initial calibration verification for acetone and acrolein exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of acrolein was required. Acetone in associated samples was qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-040513	VOCs	Acetone	**UJ**
MW22-ROX-040513	VOCs	Acetone	**UJ**

New England ACCUTEST LABORATORIES

05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19612

Sampling Date: 04/05/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **88**

Reviewed on 5/7/2013

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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Sample Summary

Shell Oil

Job No: MC19612

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19612-1	04/05/13	11:35	LRMM	04/06/13	AQ	Ground Water	ROST3MW-ROX-040513
MC19612-2	04/05/13	13:30	LRMM	04/06/13	AQ	Ground Water	MW22-ROX-040513
MC19612-3	04/05/13	14:30	LRMM	04/06/13	AQ	Ground Water	MW24-ROX-040513
MC19612-4	04/05/13	00:00	LRMM	04/06/13	AQ	Trip Blank Water	TB-ROX-040513-HCL
MC19612-5	04/05/13	00:00	LRMM	04/06/13	AQ	Trip Blank Water	TB-ROX-040513-ST

ACCUTEST LABORATORIES

N

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19612
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	**Report Date**	4/23/2013 3:06:12 PM

3 Sample(s) and 2 Trip Blank(s) were collected on 04/05/2013 and were received at Accutest on 04/06/2013 properly preserved, at 0.2 Deg. C and intact. These Samples received an Accutest job number of MC19612. 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:** MSH1998

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19661-24MS, MC19661-24MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Acetone, Acrolein are outside control limits. Blank Spike meets program technical requirements.
- BSD Recovery(s) for Acrolein are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for Acrolein are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Initial calibration verification MSH1993-ICV1993 for acrolein exceeds 50% Difference. Acrolein is within criteria in continuing calibration check standard MSH1998-CC1993.

Matrix AQ **Batch ID:** MSV696

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19614-2MS, MC19614-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Acetone, Acrolein, Bromomethane are outside control limits. Blank Spike meets program technical requirements.
- BSD Recovery(s) for Acetone, Acrolein, Naphthalene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, Bromomethane, Chloromethane 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, Naphthalene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC19612-2 has internal standard, Tert Butyl Alcohol-D9 outside control limits. Target analytes not associated with this internal standard.
- Initial calibration verification MSV692-ICV692 for acrolein, acetone exceeds 50% Difference. Acrolein and acetone are within criteria in continuing calibration check standard MSV696-CC692

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP32596

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19700-3MS, MC19700-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Aniline, Hexachlorocyelopentadiene, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- BSD Recovery(s) for Aniline, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Aniline, Hexachloroeyclopentadiene, n-Nitrosodimethylamine, Phenol, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Duplicate Recovery(s) for Pyridine are outside control limits. Blank Spike meets program technical requirements.
- RPD(s) for MSD for 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2-Chlorophenol, 2-Methylphenol, 2-Nitrophenol, 3&4-Methylphenol, Benzyl Alcohol, bis(2-Chloroethoxy)methane, bis(2-Chloroethyl)ether, bis(2-Chloroisopropyl)ether, Isophorone, n-Nitrosodimethylamine, Naphthalene, Nitrobenzene, Phenol, Pyridine are outside control limits for sample OP32596-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: OP32597

- All samples were extraeted within the reeommended method holding time.
- All samples were analyzed within the reeommended method holding time.
- All method blanks for this batch meet method speeific criteria.
- Sample(s) MC19700-4MS, MC19700-4MSD were used as the QC samples indicated.
- Blank Spike Reeovery(s) for Aeenaphthylene are outside control limits. Blank Spike meets program teehnieal requirements.
- OP32597-MS for Aeenaphthylene: Outside control limits. Blank Spike meets program technieal requirements.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP32677

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19670-4MS, MC19670-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verifcation standard GBK829-ICV829 for 4-Bromofluorobenzene exeeeded eriteria. Target reeovery satisfaetory.

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 Direetor or assignee as verified by the signature on the cover page has authorized the release of this report(MC19612).

Summary of Hits

Job Number: MC19612
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/05/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19612-1	ROST3MW-ROX-040513					
Benzene		60.5	0.50	0.24	ug/l	SW846 8260B
sec-Butylbenzene		1.1 J	5.0	0.55	ug/l	SW846 8260B
Ethylbenzene		13.6	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		3.2 J	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		1.2 J	5.0	0.57	ug/l	SW846 8260B
Naphthalene		132	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		8.2	5.0	0.58	ug/l	SW846 8260B
Toluene		7.6	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		53.1	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		14.5	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		60.3	1.0	0.73	ug/l	SW846 8260B
o-Xylene		12.6	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		72.9	1.0	0.58	ug/l	SW846 8260B
Di-n-bntyl phthalate		0.44 J	5.4	0.42	ug/l	SW846 8270C
Acenaphthene		0.16	0.11	0.015	ug/l	SW846 8270C BY SIM
Fluorene		0.17	0.11	0.050	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		2.9	0.22	0.15	ng/l	SW846 8270C BY SIM
2-Methylnaphthalene		3.9	0.22	0.056	ug/l	SW846 8270C BY SIM
Phenanthrene		0.55	0.054	0.014	ug/l	SW846 8270C BY SIM
MC19612-2	MW22-ROX-040513					
Benzene		1500	25	12	ug/l	SW846 8260B
n-Butylbenzene		41.3	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		14.2	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		17.1	5.0	0.64	ug/l	SW846 8260B
Ethylbenzene		2440	50	25	ug/l	SW846 8260B
Isopropylbenzene		159	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		12.2	5.0	0.57	ug/l	SW846 8260B
4-Methyl-2-pentanone (MIBK)		12.4	5.0	2.9	ug/l	SW846 8260B
Naphthalene		286	250	25	ug/l	SW846 8260B
n-Propylbenzene		290	5.0	0.58	ug/l	SW846 8260B
Toluene		6140	50	25	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		931	250	17	ng/l	SW846 8260B
1,3,5-Trimethylbenzene		379	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		5150	50	37	ug/l	SW846 8260B
o-Xylene		2640	50	29	ug/l	SW846 8260B
Xylene (total)		7790	50	29	ug/l	SW846 8260B
2,4-Dimethylphenol		26.9	11	1.2	ug/l	SW846 8270C
2-Methylphenol		23.6	11	1.4	ug/l	SW846 8270C
3&4-Methylphenol		40.3	11	2.2	ug/l	SW846 8270C
Phenol		12.3	5.3	0.54	ug/l	SW846 8270C
Di-n-butyl phthalate		0.57 J	5.3	0.41	ug/l	SW846 8270C

Summary of Hits

Job Number: MC19612
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/05/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Naphthalene		250	21	1.8	ug/l	SW846 8270C
Acenaphthene		0.18	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.049 J	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		24.1	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		41.3	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.19	0.053	0.013	ug/l	SW846 8270C BY SIM
MC19612-3	MW24-ROX-040513					
Benzene		2.9	0.50	0.24	ug/l	SW846 8260B
Ethylbenzene		1.2	1.0	0.51	ug/l	SW846 8260B
Toluene		1.4	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		0.51 J	5.0	0.35	ug/l	SW846 8260B
m,p-Xylene		2.1	1.0	0.73	ug/l	SW846 8260B
o-Xylene		0.90 J	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		3.0	1.0	0.58	ug/l	SW846 8260B
Di-n-butyl phthalate		0.49 J	5.2	0.40	ug/l	SW846 8270C
Benzo(b)fluoranthene		0.057	0.052	0.024	ug/l	SW846 8270C BY SIM
Fluoranthene		0.088 J	0.10	0.034	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.15 J	0.21	0.054	ug/l	SW846 8270C BY SIM
Pyrene		0.066 J	0.10	0.037	ug/l	SW846 8270C BY SIM
MC19612-4	TB-ROX-040513-HCL					
Acetone		3.2 J	5.0	3.0	ug/l	SW846 8260B
MC19612-5	TB-ROX-040513-ST					

No hits reported in this sample.

New England ACCUTEST LABORATORIES

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	ROST3MW-ROX-040513		
Lab Sample ID:	MC19612-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17562.D	1	04/16/13	AMY	n/a	n/a	MSV696
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	U
107-02-8	Acrolein	ND	25	10	ug/l	U
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	60.5	0.50	0.24	ng/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-Bntylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	1.1	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	ng/l	
75-00-3	Chloroethaue	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-040513		
Lab Sample ID:	MC19612-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	13.6	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	3.2	5.0	0.50	ug/l	J
99-87-6	p-Isopropyltoluene	1.2	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	132	5.0	0.50	ug/l	J
103-65-1	n-Propylbenzene	8.2	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-Tetrachloroethaue	ND	1.0	0.60	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	7.6	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	53.1	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	14.5	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	60.3	1.0	0.73	ug/l	
95-47-6	o-Xylene	12.6	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	72.9	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-040513		
Lab Sample ID:	MC19612-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	104%		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:	ROST3MW-ROX-040513		
Lab Sample ID:	MC19612-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F62991.D	1	04/12/13	KR	04/10/13	OP32596	MSF2946
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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.4	0.55	ug/l	uJ
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	uJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.92	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.99	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methaue	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.70	ug/l	
121-14-2	2,4-Diuitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Diuitrotoluene	ND	11	0.69	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-bntyl phthalate	0.44	5.4	0.42	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Iudicates value exceeds calibration range
J = Indicates 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-040513		
Lab Sample ID:	MC19612-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.4	0.47	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ng/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ng/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.87	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.58	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	25%		15-110%
4165-62-2	Phenol-d5	18%		15-110%
118-79-6	2,4,6-Tribromophenol	68%		15-110%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	60%		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 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-040513		
Lab Sample ID:	MC19612-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82566.D	1	04/12/13	NS	04/10/13	OP32597	MSI3070
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	0.16	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	ND	0.11	0.014	ug/l	UJ
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
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	ND	0.054	0.025	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	0.063	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	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	0.17	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	2.9	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	3.9	0.22	0.056	ug/l	
85-01-8	Phenanthrene	0.55	0.054	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	55%		30-130%
1718-51-0	Terphenyl-d14	61%		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-040513		
Lab Sample ID:	MC19612-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23617.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
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)	114%		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-040513		
Lab Sample ID:	MC19612-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17561.D	1	04/16/13	AMY	n/a	n/a	MSV696
Run #2	H60442.D	50	04/17/13	GK	n/a	n/a	MSH1998

	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	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	1500 [a]	25	12	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	41.3	5.0	0.61	ug/l	J
135-98-8	sec-Butylbenzene	14.2	5.0	0.55	ug/l	J
98-06-6	tert-Butylbenzene	17.1	5.0	0.64	ug/l	J
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbun tetrachluride	ND	1.0	0.87	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	
75-00-3	Chloroetbane	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	Dibromochloromethaue	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	traus-1,2-Dichloroethene	ND	1.0	0.95	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Iudicates value exceeds calibration range
J = Indicates 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-040513		
Lab Sample ID:	MC19612-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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	2440 [a]	50	25	ng/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	159	5.0	0.50	ug/l	J
99-87-6	p-Isopropyltoluene	12.2	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)	12.4	5.0	2.9	ug/l	J
74-95-3	Methylene bromide	ND	5.0	1.1	ng/l	
75-09-2	Methylene chloride	ND	2.0	0.83	ng/l	
91-20-3	Naphthalene	286 [a]	250	25	ug/l	J
103-65-1	n-Propylbenzene	290	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	6140 [a]	50	25	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	931 [a]	250	17	ug/l	
108-67-8	1,3,5-Trimethylbenzene	379	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	5150 [a]	50	37	ug/l	
95-47-6	o-Xylene	2640 [a]	50	29	ug/l	
1330-20-7	Xylene (total)	7790 [a]	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-040513		
Lab Sample ID:	MC19612-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	91%	70-130%
2037-26-5	Toluene-D8	108%	104%	70-130%
460-00-4	4-Bromofluorobenzene	96%	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:	MW22-ROX-040513		
Lab Sample ID:	MC19612-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F62992.D	1	04/12/13	KR	04/10/13	OP32596	MSF2946
Run #2	U13682.D	10	04/18/13	NS	04/10/13	OP32596	MSU693

	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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	26.9	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylpheuol	23.6	11	1.4	ug/l	
	3&4-Methylphenol	40.3	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.62	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	12.3	5.3	0.54	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	11	0.61	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.91	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.98	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.72	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	0.57	5.3	0.41	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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 = Iudicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW22-ROX-040513		
Lab Sample ID:	MC19612-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.52	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	0.47	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
91-20-3	Naphthalene	250 [a]	21	1.8	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.86	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.58	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	30%	44%	15-110%
4165-62-2	Phenol-d5	31%	29%	15-110%
118-79-6	2,4,6-Tribromophenol	86%	76%	15-110%
4165-60-0	Nitrobenzene-d5	68%	64%	30-130%
321-60-8	2-Fluorobiphenyl	60%	61%	30-130%
1718-51-0	Terphenyl-d14	62%	57%	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:	MW22-ROX-040513		
Lab Sample ID:	MC19612-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, 1L		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82567.D	1	04/12/13	NS	04/10/13	OP32597	MSI3070
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	0.18	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.049	0.11	0.014	ug/l	J
120-12-7	Anthracene	ND	0.11	0.019	ng/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	ng/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ng/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	0.049	ug/l	
90-12-0	1-Methyluaphthalene	24.1	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	41.3	0.21	0.055	ug/l	
85-01-8	Phenanthrene	0.19	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
4165-60-0	Nitrobenzene-d5	58%		30-130%
321-60-8	2-Fluorobiphenyl	55%		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:	MW22-ROX-040513		
Lab Sample ID:	MC19612-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23618.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
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)	131%		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:	MW24-ROX-040513		
Lab Sample ID:	MC19612-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60435.D	1	04/17/13	GK	n/a	n/a	MSH1998
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	2.9	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	10	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:	MW24-ROX-040513		
Lab Sample ID:	MC19612-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	1.2	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	1.4	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	0.51	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	2.1	1.0	0.73	ug/l	
95-47-6	o-Xylene	0.90	1.0	0.58	ug/l	J
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:	MW24-ROX-040513		
Lab Sample ID:	MC19612-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	103%		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:	MW24-ROX-040513		
Lab Sample ID:	MC19612-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F62993.D	1	04/12/13	KR	04/10/13	OP32596	MSF2946
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ng/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ug/l	UJ
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.66	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	0.49	5.2	0.40	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	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:	MW24-ROX-040513		
Lab Sample ID:	MC19612-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	0.45	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.83	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.53	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	26%		15-110%
118-79-6	2,4,6-Tribromophenol	81%		15-110%
4165-60-0	Nitrobenzene-d5	61%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	55%		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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E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW24-ROX-040513		
Lab Sample ID:	MC19612-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82568.D	1	04/12/13	NS	04/10/13	OP32597	MSI3070
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	ND	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.014	ug/l	UJ
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	0.057	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,b)anthracene	ND	0.10	0.043	ug/l	
206-44-0	Fluoranthene	0.088	0.10	0.034	ug/l	J
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	0.15	0.21	0.054	ug/l	J
85-01-8	Phenanthrene	ND	0.052	0.013	ug/l	
129-00-0	Pyrene	0.066	0.10	0.037	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	53%		30-130%
1718-51-0	Terphenyl-d14	52%		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:	MW24-ROX-040513		
Lab Sample ID:	MC19612-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23619.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
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)	112%		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-040513-HCL		
Lab Sample ID:	MC19612-4	Date Sampled:	04/05/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17549.D	1	04/16/13	AMY	n/a	n/a	MSV696
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	3.2	5.0	3.0	ug/l	J
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	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-Dichloroetheue	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 compound

Report of Analysis

Client Sample ID:	TB-ROX-040513-HCL		
Lab Sample ID:	MC19612-4	Date Sampled:	04/05/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-Trichloropropaue	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-040513-HCL		
Lab Sample ID:	MC19612-4	Date Sampled:	04/05/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	102%		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-040513-ST		
Lab Sample ID:	MC19612-5	Date Sampled:	04/05/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23620.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
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)	114%		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

New England ACCUTEST LABORATORIES

Misc. Forms

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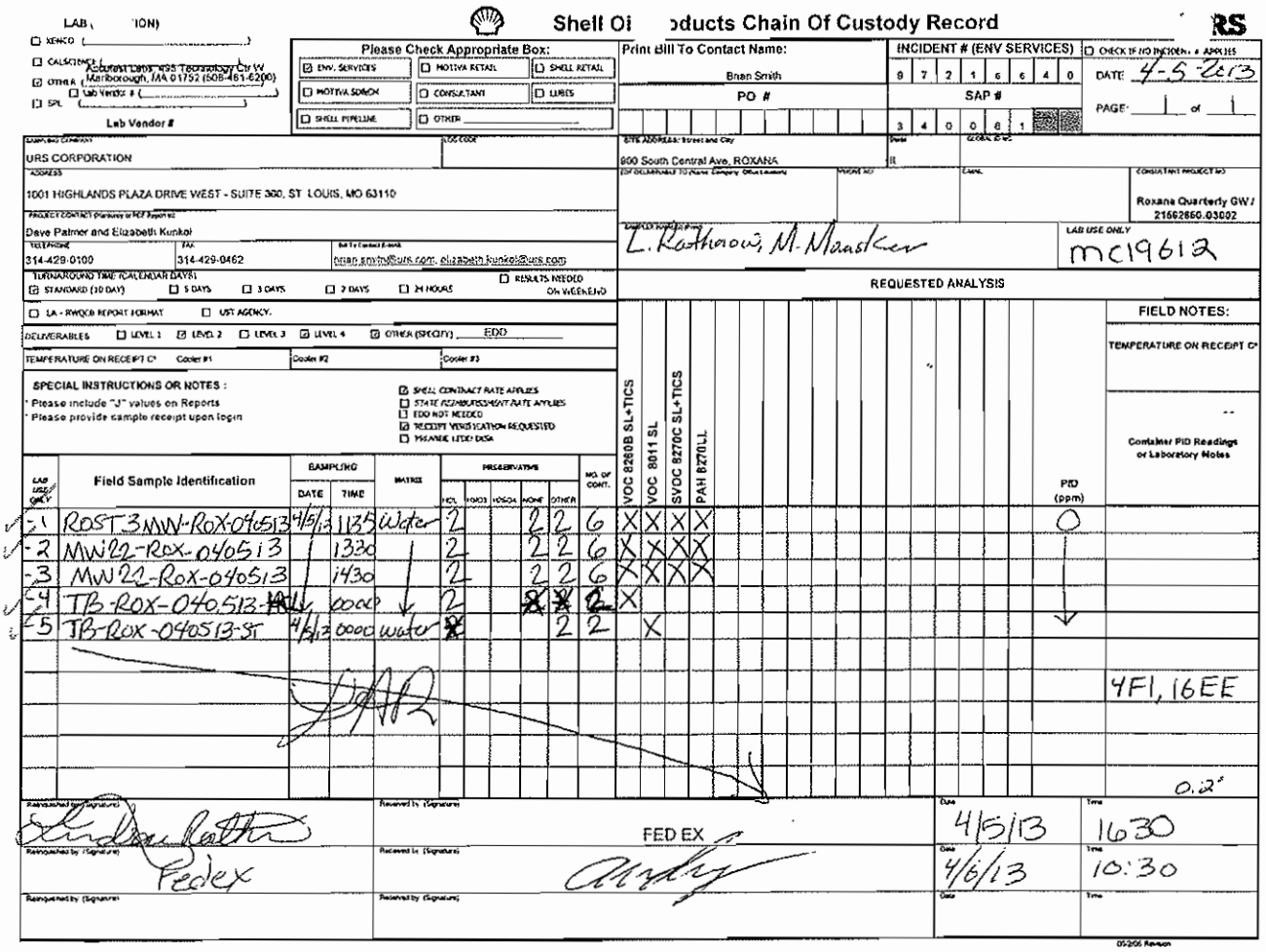
Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oi oducts Chain Of Custody Record

LAB ION)
XENCO (_____)
CALSCIENCE (Advanced Tech. 495 Technology Cir W, Marlborough, MA 01752 (508-481-6200))
OTHER (_____) Lab Vendor # (_____)
SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
ENV. SERVICES | MOTIVA RETAIL | SHELL RETAIL
MOTIVA SORCH | CONSULTANT | LUBES
SHELL PIPELINE | OTHER

Print Bill To Contact Name: Brian Smith
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: 4-5-2013
PAGE: 1 of 1

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 | E-mail To Contact E-mail: brian.smith@urs.com, elizabeth.kunkel@urs.com

SITE ADDRESS: 900 South Central Ave, ROXANA, IL
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21662660.03002
SAMPLED BY (Print): L. Rathbone, M. Maasker
LAB USE ONLY: MC19612

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
PREVIOUS EDD DATA

REQUESTED ANALYSIS: VOC 8260B SL+TICS | VOC 8011 SL | SVOC 8270C SL+TICS | PAH 8270 LL | PID (ppm)

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	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260B SL+TICS	VOC 8011 SL	SVOC 8270C SL+TICS	PAH 8270 LL	PID (ppm)	Container PID Readings or Laboratory Notes
-1	ROST3MW-ROX-040513	4/5/13	1135	Water	2		2	2	6	X	X	X	X	0	
-2	MW22-ROX-040513		1330		2		2	2	6	X	X	X	X		
-3	MW22-ROX-040513		1430		2		2	2	6	X	X	X	X		
-4	TB-ROX-040513-[illegible]		0000		2		X	X	2	X					
-5	TB-ROX-040513-ST	4/5/13	0000	Water	X			2	2		X				
															4FI, 16EE
															0.2°

Relinquished by (Signature)	Received by (Signature)	Date	Time
Lindsay Rathbone	FED EX	4/5/13	1630
Fedex	Andy	4/6/13	10:30

05206 Revision

5.1

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MC19612: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19612 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/6/2013 **Delivery Method:**

Project: 900 SOUTH CENTRAL **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. Analysis 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

-2 one HCL vial was received broken, one remains.
-3 ID on bottles reads MW24, but coc says MW22.

ACCUTEST

Sample Receipt Summary - Problem Resolution

Accutest Job Number: MC19612

CSR: Jeremy Vienneau **Response Date:** 4/10/2013

Response: Client advised that -3 should be MW24-ROX-040512. See email in file.

5.1

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Accutest Laboratories
V 508 481.6200

495 Technology Center West, Bldg One
F 508 481 7753

Marlborough, MA
www.accutest.com

MC19612: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19612

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19612-1 Collected: 05-APR-13 11:35 By: LRMM Received: 06-APR-13 By: ROST3MW-ROX-040513						
MC19612-1	SW846 8270C BY SIM	12-APR-13 09:39	NS	10-APR-13	SC	B8270SIMSL
MC19612-1	SW846 8270C	12-APR-13 14:37	KR	10-APR-13	SC	AB8270SL+
MC19612-1	SW846 8260B	16-APR-13 18:52	AMY			V8260SL+
MC19612-1	SW846 8011	17-APR-13 15:53	NK	15-APR-13	PA	V8011SL
MC19612-2 Collected: 05-APR-13 13:30 By: LRMM Received: 06-APR-13 By: MW22-ROX-040513						
MC19612-2	SW846 8270C BY SIM	12-APR-13 10:01	NS	10-APR-13	SC	B8270SIMSL
MC19612-2	SW846 8270C	12-APR-13 15:01	KR	10-APR-13	SC	AB8270SL+
MC19612-2	SW846 8260B	16-APR-13 18:25	AMY			V8260SL+
MC19612-2	SW846 8260B	17-APR-13 14:13	GK			V8260SL+
MC19612-2	SW846 8011	17-APR-13 16:16	NK	15-APR-13	PA	V8011SL
MC19612-2	SW846 8270C	18-APR-13 11:53	NS	10-APR-13	SC	AB8270SL+
MC19612-3 Collected: 05-APR-13 14:30 By: LRMM Received: 06-APR-13 By: MW24-ROX-040513						
MC19612-3	SW846 8270C BY SIM	12-APR-13 10:25	NS	10-APR-13	SC	B8270SIMSL
MC19612-3	SW846 8270C	12-APR-13 15:25	KR	10-APR-13	SC	AB8270SL+
MC19612-3	SW846 8260B	17-APR-13 11:00	GK			V8260SL+
MC19612-3	SW846 8011	17-APR-13 16:39	NK	15-APR-13	PA	V8011SL
MC19612-4 Collected: 05-APR-13 00:00 By: LRMM Received: 06-APR-13 By: TB-ROX-040513-HCL						
MC19612-4	SW846 8260B	16-APR-13 13:07	AMY			V8260SL+
MC19612-5 Collected: 05-APR-13 00:00 By: LRMM Received: 06-APR-13 By: TB-ROX-040513-ST						
MC19612-5	SW846 8011	17-APR-13 17:02	NK	15-APR-13	PA	V8011SL

Accutest Internal Chain of Custody

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/06/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19612-1.2	Walk In Ref #22	Michael Rolo	04/10/13 07:50	Retrieve from Storage
MC19612-1.2	Michael Rolo		04/11/13 07:20	Depleted
MC19612-1.3	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19612-1.3	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19612-1.3	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19612-1.3	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Return to Storage
MC19612-1.5	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19612-1.5	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19612-2.2	Walk In Ref #22	Michael Rolo	04/10/13 07:50	Retrieve from Storage
MC19612-2.2	Michael Rolo		04/11/13 07:20	Depleted
MC19612-2.3	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19612-2.3	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19612-2.3	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19612-2.3	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Return to Storage
MC19612-2.6	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19612-2.6	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19612-3.2	Walk In Ref #22	Michael Rolo	04/10/13 07:50	Retrieve from Storage
MC19612-3.2	Michael Rolo		04/11/13 07:20	Depleted
MC19612-3.3	VOC Ref #4	Kerry Ryan	04/17/13 09:49	Retrieve from Storage
MC19612-3.3	Kerry Ryan	GCMSH	04/17/13 09:49	Load on Instrument
MC19612-3.3	GCMSH	Kerry Ryan	04/18/13 08:04	Unload from Instrument
MC19612-3.3	Kerry Ryan	VOC Ref #4	04/18/13 08:04	Return to Storage
MC19612-3.4	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19612-3.4	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19612-3.4	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19612-3.4	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Return to Storage
MC19612-3.6	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19612-3.6	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19612-4.1	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19612-4.1	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19612-4.1	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19612-4.1	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Return to Storage
MC19612-5.2	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage

5.3
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Accutest Internal Chain of Custody

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/06/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19612-5.2	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage

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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-MB	V17548.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

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	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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-MB	V17548.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

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-Isopropyltolnene	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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-MB	V17548.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	70-130%
2037-26-5	Toluene-D8	102%	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	

6.1.1

Method Blank Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-MB	H60433.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

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	10	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	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	
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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-MB	H60433.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

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-Trichlorobenzeue	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-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	

Method Blank Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-MB	H60433.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	92%	70-130%
2037-26-5	Toluene-D8	106%	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	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-BS	V17544.D	1	04/16/13	AMY	n/a	n/a	MSV696
MSV696-BSD	V17545.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	70.1	140* a	70.0	140* a	0	70-130/25
107-02-8	Acrolein	250	98.7	39* a	96.8	39* a	2	70-130/25
107-13-1	Acrylonitrile	50	60.8	122	59.3	119	2	70-130/25
71-43-2	Benzene	50	53.9	108	53.1	106	1	70-130/25
108-86-1	Bromobenzene	50	56.8	114	55.8	112	2	70-130/25
74-97-5	Bromochloromethane	50	56.4	113	55.9	112	1	70-130/25
75-27-4	Bromodichloromethane	50	53.7	107	53.5	107	0	70-130/25
75-25-2	Bromoform	50	42.5	85	43.0	86	1	70-130/25
74-83-9	Bromomethane	50	68.0	136* a	64.7	129	5	70-130/25
78-93-3	2-Butanone (MEK)	50	63.2	126	63.8	128	1	70-130/25
104-51-8	n-Butylbenzene	50	61.1	122	60.2	120	1	70-130/25
135-98-8	sec-Butylbenzene	50	56.9	114	55.5	111	2	70-130/25
98-06-6	tert-Butylbenzene	50	56.2	112	54.6	109	3	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	52.9	106	51.5	103	3	70-130/25
108-90-7	Chlorobenzene	50	54.4	109	53.4	107	2	70-130/25
75-00-3	Chloroethane	50	62.4	125	59.2	118	5	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	49.4	99	49.9	100	1	70-130/25
67-66-3	Chloroform	50	54.8	110	53.9	108	2	70-130/25
74-87-3	Chloromethane	50	64.5	129	63.0	126	2	70-130/25
95-49-8	o-Chlorotoluene	50	54.6	109	53.8	108	1	70-130/25
106-43-4	p-Chlorotoluene	50	56.7	113	55.9	112	1	70-130/25
124-48-1	Dibromochloromethane	50	47.1	94	47.2	94	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	55.6	111	55.1	110	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	54.9	110	54.0	108	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	57.4	115	56.2	112	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	51.6	103	50.7	101	2	70-130/25
75-34-3	1,1-Dichloroethane	50	56.5	113	55.6	111	2	70-130/25
107-06-2	1,2-Dichloroethane	50	54.2	108	54.0	108	0	70-130/25
75-35-4	1,1-Dichloroethene	50	57.8	116	56.3	113	3	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	54.4	109	53.5	107	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	55.6	111	54.5	109	2	70-130/25
78-87-5	1,2-Dichloropropane	50	53.7	107	53.3	107	1	70-130/25
142-28-9	1,3-Dichloropropane	50	54.3	109	54.1	108	0	70-130/25
594-20-7	2,2-Dichloropropane	50	57.8	116	56.0	112	3	70-130/25
563-58-6	1,1-Dichloropropene	50	55.0	110	54.0	108	2	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-BS	V17544.D	1	04/16/13	AMY	n/a	n/a	MSV696
MSV696-BSD	V17545.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

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	52.7	105	52.8	106	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	48.7	97	48.9	98	0	70-130/25
123-91-1	1,4-Dioxane	250	253	101	260	104	3	70-130/25
97-63-2	Ethyl methacrylate	50	52.2	104	52.3	105	0	77-137/25
100-41-4	Ethylbenzene	50	57.5	115	56.6	113	2	70-130/25
87-68-3	Hexachlorobutadiene	50	54.3	109	54.8	110	1	70-130/25
591-78-6	2-Hexanone	50	59.5	119	59.9	120	1	70-130/25
98-82-8	Isopropylbenzene	50	56.1	112	55.1	110	2	70-130/25
99-87-6	p-Isopropyltoluene	50	61.5	123	60.8	122	1	70-130/25
1634-04-4	Methyl Tert Bntyl Ether	50	49.4	99	49.7	99	1	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	49.9	100	50.4	101	1	70-130/25
74-95-3	Methylene bromide	50	54.8	110	55.1	110	1	70-130/25
75-09-2	Methylene chloride	50	55.7	111	55.3	111	1	70-130/25
91-20-3	Naphthalene	50	62.2	124	65.8	132* a	6	70-130/25
103-65-1	n-Propylbenzene	50	56.2	112	54.9	110	2	70-130/25
100-42-5	Styrene	50	57.2	114	56.4	113	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	56.9	114	56.2	112	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	61.9	124	62.1	124	0	70-130/25
127-18-4	Tetrachloroethene	50	54.8	110	53.5	107	2	70-130/25
108-88-3	Toluene	50	54.7	109	53.9	108	1	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	59.4	119	64.4	129	8	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	57.5	115	59.0	118	3	70-130/25
71-55-6	1,1,1-Trichloroethane	50	53.6	107	52.3	105	2	70-130/25
79-00-5	1,1,2-Trichloroethane	50	53.3	107	53.3	107	0	70-130/25
79-01-6	Trichloroethene	50	51.2	102	50.3	101	2	70-130/25
75-69-4	Trichlorofluoromethane	50	57.5	115	55.3	111	4	70-130/25
96-18-4	1,2,3-Trichloropropane	50	56.2	112	56.3	113	0	70-130/25
95-63-6	1,2,4-Trimethylhenzene	50	57.6	115	56.6	113	2	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	57.4	115	56.3	113	2	70-130/25
108-05-4	Vinyl Acetate	50	54.9	110	55.2	110	1	70-130/25
75-01-4	Vinyl chloride	50	53.5	107	51.9	104	3	70-130/25
	m,p-Xylene	100	115	115	112	112	3	70-130/25
95-47-6	o-Xylene	50	54.8	110	53.6	107	2	70-130/25
1330-20-7	Xylene (total)	150	170	113	165	110	3	70-130/25

* = Outside of Control Limits.

6.2.1

6

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-BS	V17544.D	1	04/16/13	AMY	n/a	n/a	MSV696
MSV696-BSD	V17545.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dihromofluoromethane	106%	106%	70-130%
2037-26-5	Toluene-D8	104%	104%	70-130%
460-00-4	4-Bromofluorobenzene	93%	93%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

6.2.1

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-BS	H60430.D	I	04/17/13	GK	n/a	n/a	MSH1998
MSH1998-BSD	H60431.D	I	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	69.1	138* a	64.6	129	7	70-130/25
107-02-8	Acrolein	250	130	52* a	131	52* a	1	70-130/25
107-13-1	Acrylonitrile	50	37.7	75	37.5	75	1	70-130/25
71-43-2	Benzene	50	52.2	104	50.3	101	4	70-130/25
108-86-1	Bromobenzene	50	54.7	109	53.4	107	2	70-130/25
74-97-5	Bromochloromethane	50	49.6	99	47.3	95	5	70-130/25
75-27-4	Bromodichloromethane	50	55.1	110	53.6	107	3	70-130/25
75-25-2	Bromoform	50	52.5	105	52.2	104	1	70-130/25
74-83-9	Bromomethane	50	50.6	101	49.3	99	3	70-130/25
78-93-3	2-Butanone (MEK)	50	53.8	108	50.3	101	7	70-130/25
104-51-8	n-Butylbenzene	50	59.7	119	58.1	116	3	70-130/25
135-98-8	sec-Butylbenzene	50	55.4	111	53.4	107	4	70-130/25
98-06-6	tert-Butylbenzene	50	55.5	111	53.1	106	4	70-130/25
75-15-0	Carbon disulfide	50	49.2	98	47.0	94	5	70-130/25
56-23-5	Carbon tetrachloride	50	61.3	123	57.8	116	6	70-130/25
108-90-7	Chlorobenzene	50	50.9	102	50.9	102	0	70-130/25
75-00-3	Chloroethane	50	51.2	102	50.2	100	2	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	41.5	83	41.0	82	1	70-130/25
67-66-3	Chloroform	50	50.9	102	48.3	97	5	70-130/25
74-87-3	Chloromethane	50	53.8	108	52.7	105	2	70-130/25
95-49-8	o-Chlorotoluene	50	50.8	102	49.7	99	2	70-130/25
106-43-4	p-Chlorotoluene	50	54.2	108	52.6	105	3	70-130/25
124-48-1	Dibromochloromethane	50	52.4	105	52.0	104	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	52.3	105	51.5	103	2	70-130/25
541-73-1	1,3-Dichlorobenzene	50	53.4	107	52.1	104	2	70-130/25
106-46-7	1,4-Dichlorobenzeue	50	53.5	107	52.8	106	1	70-130/25
75-71-8	Dichlorodifluoromethane	50	49.5	99	46.4	93	6	70-130/25
75-34-3	1,1-Dichloroethane	50	48.8	98	45.8	92	6	70-130/25
107-06-2	1,2-Dichloroethane	50	51.3	103	49.6	99	3	70-130/25
75-35-4	1,1-Dichloroethene	50	52.5	105	48.9	98	7	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	47.8	96	45.6	91	5	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	48.9	98	45.5	91	7	70-130/25
78-87-5	1,2-Dichloropropane	50	48.5	97	48.4	97	0	70-130/25
142-28-9	1,3-Dichloropropane	50	53.5	107	52.6	105	2	70-130/25
594-20-7	2,2-Dichloropropane	50	58.4	117	55.3	111	5	70-130/25
563-58-6	1,1-Dichloropropene	50	54.2	108	51.1	102	6	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-BS	H60430.D	1	04/17/13	GK	n/a	n/a	MSH1998
MSH1998-BSD	H60431.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

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	46.1	92	45.3	91	2	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	48.0	96	47.0	94	2	70-130/25
123-91-1	1,4-Dioxane	250	238	95	232	93	3	70-130/25
97-63-2	Ethyl methacrylate	50	46.1	92	44.5	89	4	77-137/25
100-41-4	Ethylbenzene	50	58.2	116	56.0	112	4	70-130/25
87-68-3	Hexachlorobutadiene	50	59.3	119	57.7	115	3	70-130/25
591-78-6	2-Hexanone	50	58.7	117	58.4	117	1	70-130/25
98-82-8	Isopropylbenzene	50	55.1	110	53.4	107	3	70-130/25
99-87-6	p-Isopropyltolnene	50	60.0	120	58.6	117	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	47.4	95	45.3	91	5	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.8	92	44.4	89	3	70-130/25
74-95-3	Methylene bromide	50	52.1	104	50.7	101	3	70-130/25
75-09-2	Methylene chloride	50	46.7	93	45.5	91	3	70-130/25
91-20-3	Naphthalene	50	54.3	109	52.8	106	3	70-130/25
103-65-1	n-Propylbenzene	50	54.1	108	51.7	103	5	70-130/25
100-42-5	Styrene	50	57.5	115	57.9	116	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	59.5	119	59.1	118	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	56.3	113	56.1	112	0	70-130/25
127-18-4	Tetrachloroethene	50	58.7	117	56.5	113	4	70-130/25
108-88-3	Toluene	50	51.2	102	49.8	100	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	57.8	116	57.4	115	1	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	58.0	116	56.1	112	3	70-130/25
71-55-6	1,1,1-Trichloroethane	50	54.3	109	51.5	103	5	70-130/25
79-00-5	1,1,2-Trichloroethane	50	49.3	99	48.5	97	2	70-130/25
79-01-6	Trichloroethene	50	50.2	100	48.3	97	4	70-130/25
75-69-4	Trichlorofluoromethane	50	52.7	105	49.8	100	6	70-130/25
96-18-4	1,2,3-Trichloropropane	50	49.6	99	49.2	98	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	56.3	113	54.9	110	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	56.6	113	54.7	109	3	70-130/25
108-05-4	Vinyl Acetate	50	54.1	108	51.4	103	5	70-130/25
75-01-4	Vinyl chloride	50	46.1	92	43.5	87	6	70-130/25
	m,p-Xylene	100	115	115	114	114	1	70-130/25
95-47-6	o-Xylene	50	56.4	113	54.8	110	3	70-130/25
1330-20-7	Xylene (total)	150	171	114	169	113	1	70-130/25

* = Outside of Control Limits.

6.2.2

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-BS	H60430.D	1	04/17/13	GK	n/a	n/a	MSH1998
MSH1998-BSD	H60431.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	98%	70-130%
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	109%	109%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19614-2MS	V17555.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2MSD	V17556.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2	V17553.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

CAS No.	Compound	MC19614-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	58.5	117	57.3	115	2	70-130/30
107-02-8	Acrolein	ND		250	225	90	224	90	0	70-130/30
107-13-1	Acrylonitrile	ND		50	62.1	124	59.1	118	5	70-130/30
71-43-2	Benzene	ND		50	54.0	108	52.0	104	4	70-130/30
108-86-1	Bromobenzene	ND		50	54.3	109	53.4	107	2	70-130/30
74-97-5	Bromochloromethane	ND		50	56.0	112	54.6	109	3	70-130/30
75-27-4	Bromodichloromethane	ND		50	52.9	106	51.9	104	2	70-130/30
75-25-2	Bromoform	ND		50	40.2	80	41.3	83	3	70-130/30
74-83-9	Bromomethane	ND		50	66.9	134* [a]	64.6	129	3	70-130/30
78-93-3	2-Bntanone (MEK)	ND		50	54.2	108	52.2	104	4	70-130/30
104-51-8	n-Bntylbenzene	ND		50	58.8	118	57.3	115	3	70-130/30
135-98-8	sec-Butylbenzene	0.77	J	50	54.2	107	53.0	104	2	70-130/30
98-06-6	tert-Bntylbenzene	ND		50	52.5	105	51.5	103	2	70-130/30
75-15-0	Carbon disnlfide	ND		50	55.3	111	53.0	106	4	70-130/30
56-23-5	Carbon tetrachloride	ND		50	51.5	103	50.1	100	3	70-130/30
108-90-7	Chlorobenzene	ND		50	51.8	104	50.8	102	2	70-130/30
75-00-3	Cbloroethane	ND		50	61.3	123	59.8	120	2	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	55.0	110	53.1	106	4	70-130/30
74-87-3	Chloromethane	ND		50	68.0	136* [a]	64.5	129	5	70-130/30
95-49-8	o-Chlorotoluene	ND		50	52.7	105	51.6	103	2	70-130/30
106-43-4	p-Chlorotoluene	ND		50	54.9	110	53.8	108	2	70-130/30
124-48-1	Dibromochloromethane	ND		50	45.5	91	45.3	91	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	53.3	107	52.9	106	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	52.2	104	51.6	103	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	54.6	109	54.0	108	1	70-130/30
75-71-8	Dichlorodiflnoromethane	ND		50	53.1	106	50.8	102	4	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	57.3	115	55.0	110	4	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	55.7	111	54.1	108	3	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	57.1	114	54.9	110	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	54.4	109	52.2	104	4	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	55.5	111	52.9	106	5	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	54.2	108	52.7	105	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	53.3	107	52.0	104	2	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	55.5	111	53.1	106	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	54.9	110	52.4	105	5	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19614-2MS	V17555.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2MSD	V17556.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2	V17553.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

CAS No.	Compound	MC19614-2 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		50	51.6	103	50.1	100	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	47.9	96	47.5	95	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	274	110	261	104	5	70-130/30
97-63-2	Ethyl methacrylate	ND		50	53.4	107	52.8	106	1	72-139/30
100-41-4	Ethylbenzene	ND		50	55.4	111	54.3	109	2	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	50.6	101	50.7	101	0	70-130/30
591-78-6	2-Hexanone	ND		50	54.1	108	53.6	107	1	70-130/30
98-82-8	Isopropylbenzene	1.1	J	50	54.4	107	53.4	105	2	70-130/30
99-87-6	p-Isopropyltolnene	ND		50	58.7	117	57.5	115	2	70-130/30
1634-04-4	Methyl Tert Bntyl Ether	60.5		50	110	99	107	93	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	53.1	106	52.2	104	2	70-130/30
74-95-3	Methylene bromide	ND		50	55.4	111	53.9	108	3	70-130/30
75-09-2	Methylene chloride	ND		50	56.7	113	54.4	109	4	70-130/30
91-20-3	Naphthalene	ND		50	52.1	104	66.5	133* [a]	24	70-130/30
103-65-1	n-Propylbenzene	ND		50	54.1	108	52.8	106	2	70-130/30
100-42-5	Styrene	ND		50	54.8	110	53.9	108	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	54.4	109	53.7	107	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	63.2	126	63.2	126	0	70-130/30
127-18-4	Tetrachloroethene	ND		50	50.7	101	49.9	100	2	70-130/30
108-88-3	Toluene	ND		50	54.0	108	52.1	104	4	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	48.9	98	58.4	117	18	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	52.6	105	55.4	111	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	52.5	105	50.8	102	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	53.6	107	51.9	104	3	70-130/30
79-01-6	Trichloroethene	ND		50	49.6	99	48.0	96	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	59.2	118	56.3	113	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	56.4	113	56.2	112	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	55.4	111	54.0	108	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	54.7	109	53.6	107	2	70-130/30
108-05-4	Vinyl Acetate	ND		50	58.7	117	56.6	113	4	70-130/30
75-01-4	Vinyl chloride	ND		50	53.4	107	51.7	103	3	70-130/30
	m,p-Xylene	1.4		100	110	109	107	106	3	70-130/30
95-47-6	o-Xylene	0.79	J	50	52.8	104	52.3	103	1	70-130/30
1330-20-7	Xylene (total)	2.1		150	163	107	159	105	2	70-130/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19614-2MS	V17555.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2MSD	V17556.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2	V17553.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-1, MC19612-2, MC19612-4

CAS No.	Surrogate Recoveries	MS	MSD	MC19614-2	Limits
1868-53-7	Dibromofluoromethane	108%	107%	104%	70-130%
2037-26-5	Toluene-D8	105%	105%	104%	70-130%
460-00-4	4-Bromofluorobenzene	94%	94%	97%	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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Bateh
MC19661-24MS	H60438.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24MSD	H60439.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24 [a]	H60434.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

CAS No.	Compound	MC19661-24 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	196	78	189	76	4	70-130/30
107-02-8	Acrolein	ND		1250	593	47* [b]	599	48* [b]	1	70-130/30
107-13-1	Acrylonitrile	ND		250	180	72	177	71	2	70-130/30
71-43-2	Benzene	55.1		250	292	95	292	95	0	70-130/30
108-86-1	Bromobenzene	ND		250	261	104	260	104	0	70-130/30
74-97-5	Bromochloromethane	ND		250	237	95	235	94	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	261	104	262	105	0	70-130/30
75-25-2	Bromoform	ND		250	255	102	255	102	0	70-130/30
74-83-9	Bromomethane	ND		250	254	102	257	103	1	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	201	80	185	74	8	70-130/30
104-51-8	n-Butylbenzene	ND		250	272	109	270	108	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	256	102	257	103	0	70-130/30
98-06-6	tert-Butylbenzene	ND		250	259	104	255	102	2	70-130/30
75-15-0	Carbon disulfide	ND		250	227	91	223	89	2	70-130/30
56-23-5	Carbon tetrachloride	ND		250	279	112	276	110	1	70-130/30
108-90-7	Chlorobenzeue	ND		250	250	100	249	100	0	70-130/30
75-00-3	Chloroethane	ND		250	253	101	250	100	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	184	74	194	78	5	70-130/30
67-66-3	Chloroform	ND		250	240	96	238	95	1	70-130/30
74-87-3	Chloromethane	ND		250	265	106	265	106	0	70-130/30
95-49-8	o-Chlorotoluene	ND		250	239	96	240	96	0	70-130/30
106-43-4	p-Chlorotoluene	ND		250	252	101	253	101	0	70-130/30
124-48-1	Dibromochloromethane	ND		250	255	102	253	101	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	246	98	248	99	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	253	101	252	101	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	257	103	254	102	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	210	84	208	83	1	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	225	90	222	89	1	70-130/30
107-06-2	1,2-Dichloroethane	43.1		250	281	95	281	95	0	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	239	96	242	97	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	230	92	224	90	3	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	224	90	227	91	1	70-130/30
78-87-5	1,2-Dichloropropane	1.4		250	235	93	235	93	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	258	103	255	102	1	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	275	110	269	108	2	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	249	100	251	100	1	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19661-24MS	H60438.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24MSD	H60439.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24 [a]	H60434.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

CAS No.	Compound	MC19661-24 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	221	88	221	88	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	232	93	231	92	0	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1120	90	1140	91	2	70-130/30
97-63-2	Ethyl methacrylate	ND		250	214	86	220	88	3	72-139/30
100-41-4	Ethylbenzene	ND		250	281	112	281	112	0	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	272	109	274	110	1	70-130/30
591-78-6	2-Hexanone	ND		250	229	92	235	94	3	70-130/30
98-82-8	Isopropylbenzene	5.1		250	262	103	260	102	1	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	281	112	277	111	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	3.1		250	228	90	226	89	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	211	84	212	85	0	70-130/30
74-95-3	Methylene bromide	ND		250	243	97	249	100	2	70-130/30
75-09-2	Methylene chloride	ND		250	224	90	223	89	0	70-130/30
91-20-3	Naphthalene	ND		250	251	100	253	101	1	70-130/30
103-65-1	n-Propylbenzene	0.93		250	253	101	251	100	1	70-130/30
100-42-5	Styrene	ND		250	270	108	285	114	5	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	287	115	287	115	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	272	109	269	108	1	70-130/30
127-18-4	Tetrachloroethene	ND		250	277	111	278	111	0	70-130/30
108-88-3	Toluene	ND		250	245	98	244	98	0	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	258	103	268	107	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	263	105	270	108	3	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	255	102	249	100	2	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	233	93	237	95	2	70-130/30
79-01-6	Trichloroethene	ND		250	239	96	235	94	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	244	98	240	96	2	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	240	96	242	97	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	0.58		250	268	107	264	105	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	265	106	264	106	0	70-130/30
108-05-4	Vinyl Acetate	ND		250	263	105	270	108	3	70-130/30
75-01-4	Vinyl chloride	ND		250	218	87	210	84	4	70-130/30
	m,p-Xylene	ND		500	561	112	557	111	1	70-130/30
95-47-6	o-Xylene	ND		250	270	108	273	109	1	70-130/30
1330-20-7	Xylene (total)	ND		750	831	111	830	111	0	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19661-24MS	H60438.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24MSD	H60439.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24 [a]	H60434.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19612-2, MC19612-3

CAS No.	Surrogate Recoveries	MS	MSD	MC19661-24	Limits
1868-53-7	Dibromofluoromethane	98%	96%	92%	70-130%
2037-26-5	Toluene-D8	102%	102%	102%	70-130%
460-00-4	4-Bromofluorobenzene	110%	108%	116%	70-130%

(a) The pH of the sample aliquot for VOA analysis was > 2 at time of analysis.
(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH1998-CC1993	Injection Date:	04/17/13
Lab File ID:	H60429.D	Injection Time:	08:13
Instrument ID:	GCMSH	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	168742	8.70	243455	9.57	110719	12.83	141232	15.39	33112	6.27
Upper Limit [a]	337484	9.20	486910	10.07	221438	13.33	282464	15.89	66224	6.77
Lower Limit [b]	84371	8.20	121728	9.07	55360	12.33	70616	14.89	16556	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH1998-BS	178972	8.70	258516	9.57	116906	12.83	146613	15.39	37350	6.28
MSH1998-BSD	187579	8.70	269162	9.57	119562	12.83	150883	15.39	39631	6.27
MSH1998-MB	172057	8.70	237410	9.57	103902	12.83	124770	15.40	36685	6.28
MC19661-24	171481	8.70	245234	9.57	103157	12.83	121946	15.40	30651	6.28
MC19612-3	170617	8.70	236248	9.57	100470	12.83	119905	15.40	32490	6.28
ZZZZZZ	163514	8.70	225668	9.57	98549	12.83	115944	15.40	35393	6.27
ZZZZZZ	165507	8.70	226533	9.57	97141	12.83	133557	15.39	38209	6.28
MC19661-24MS	179027	8.70	258808	9.57	114363	12.83	147074	15.40	36147	6.27
MC19661-24MSD	184681	8.70	264350	9.57	117356	12.82	150717	15.39	38578	6.27
ZZZZZZ	187392	8.70	258336	9.57	108844	12.83	134542	15.40	40722	6.27
ZZZZZZ	179078	8.70	246743	9.57	105818	12.82	128021	15.40	38295	6.27
MC19612-2	175554	8.70	245382	9.57	107831	12.83	134305	15.40	37501	6.27
ZZZZZZ	180096	8.70	250522	9.57	107074	12.83	142416	15.39	40136	6.28
ZZZZZZ	184337	8.70	274281	9.57	109980	12.83	132866	15.40	36884	6.28
ZZZZZZ	175858	8.70	259395	9.57	103618	12.83	128041	15.40	38524	6.28
ZZZZZZ	175054	8.70	242295	9.57	105941	12.83	124758	15.40	38358	6.28
ZZZZZZ	169804	8.70	232489	9.57	102401	12.83	142416	15.39	41711	6.27
ZZZZZZ	191994	8.70	260722	9.57	110859	12.83	135974	15.40	41014	6.27
ZZZZZZ	182412	8.70	254576	9.57	107529	12.83	130004	15.39	38943	6.27
ZZZZZZ	178960	8.70	245972	9.57	105816	12.83	128548	15.40	39513	6.28
ZZZZZZ	173006	8.70	239000	9.57	105699	12.83	148646	15.40	41556	6.28

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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV696-CC692	Injection Date:	04/16/13
Lab File ID:	V17543.D	Injection Time:	10:27
Instrument ID:	GCMSV	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	554754	6.53	838734	7.72	343855	11.06	403347	13.28	79936	3.48
Upper Limit [a]	1109508	7.03	1677468	8.22	687710	11.56	806694	13.78	159872	3.98
Lower Limit [b]	277377	6.03	419367	7.22	171928	10.56	201674	12.78	39968	2.98
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV696-BS	538081	6.54	814975	7.72	337503	11.07	397539	13.28	85881	3.49
MSV696-BSD	541869	6.53	818945	7.72	342139	11.07	400859	13.28	87905	3.48
MSV696-MB	530337	6.54	805278	7.73	330949	11.07	370563	13.28	86419	3.49
MC19612-4	541502	6.54	820138	7.73	336838	11.07	377520	13.28	86011	3.49
ZZZZZZ	520364	6.54	796954	7.72	326684	11.07	363054	13.28	78829	3.48
ZZZZZZ	515991	6.55	789892	7.73	327228	11.07	363592	13.28	83121	3.50
ZZZZZZ	522291	6.54	795685	7.73	328032	11.07	362545	13.28	81743	3.49
MC19614-2	507086	6.54	773848	7.73	322548	11.07	358995	13.28	82889	3.49
MC19614-2MS	509248	6.55	773003	7.73	330008	11.07	382821	13.29	92117	3.50
MC19614-2MSD	527394	6.55	799814	7.73	336272	11.07	391796	13.28	94973	3.50
MC19614-6MS	532481	6.54	810949	7.73	338776	11.07	393013	13.29	91973	3.49
MC19614-6MSD	536285	6.55	814603	7.73	340667	11.07	395032	13.29	90541	3.50
ZZZZZZ	531530	6.55	807640	7.73	334972	11.07	375783	13.29	84915	3.50
MC19614-6	504621	6.55	774124	7.73	321767	11.07	355223	13.29	80377	3.49
MC19612-2	532384	6.56	818484	7.74	359632	11.08	413875	13.29	160710[c]	3.52
MC19612-1	559045	6.55	836770	7.74	351477	11.07	413779	13.29	130639	3.51
ZZZZZZ	535255	6.55	823392	7.74	355639	11.08	414403	13.29	179718[c]	3.52
ZZZZZZ	539242	6.70	873942	7.80	385529	11.08	441346	13.29	103276	3.52
ZZZZZZ	585158	6.69	895809	7.79	392074	11.08	456792	13.29	109547	3.52
ZZZZZZ	596386	6.55	883051	7.73	374177	11.07	453138	13.29	114956	3.50
ZZZZZZ	624753	6.55	910052	7.74	385570	11.08	467398	13.29	108542	3.50

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.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19612-1	V17562.D	97.0	104.0	94.0
MC19612-2	V17561.D	102.0	108.0	96.0
MC19612-2	H60442.D	91.0	104.0	112.0
MC19612-3	H60435.D	91.0	103.0	114.0
MC19612-4	V17549.D	102.0	102.0	96.0
MC19614-2MS	V17555.D	108.0	105.0	94.0
MC19614-2MSD	V17556.D	107.0	105.0	94.0
MC19661-24MS	H60438.D	98.0	102.0	110.0
MC19661-24MSD	H60439.D	96.0	102.0	108.0
MSH1998-BS	H60430.D	99.0	102.0	109.0
MSH1998-BSD	H60431.D	98.0	101.0	109.0
MSH1998-MB	H60433.D	92.0	106.0	112.0
MSV696-BS	V17544.D	106.0	104.0	93.0
MSV696-BSD	V17545.D	106.0	104.0	93.0
MSV696-MB	V17548.D	102.0	102.0	95.0

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
- Snrrogate Recovery Summaries

Method Blank Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32596-MB	F62975A.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945

The QC reported here applies to the following samples: Method: SW846 8270C

MC19612-1, MC19612-2, MC19612-3

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.65	2.0	0.49	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32596-MB	F62975A.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945

The QC reported here applies to the following samples: Method: SW846 8270C

MC19612-1, MC19612-2, MC19612-3

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
91-20-3	Naphthalene	ND	2.0	0.17	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	40%	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	71%	30-130%
321-60-8	2-Fluorobiphenyl	62%	30-130%
1718-51-0	Terphenyl-d14	86%	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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32597-MB	I82530A.D	1	04/11/13	NS	04/10/13	OP32597	MSI3069

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19612-1, MC19612-2, MC19612-3

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	36%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Trihromophenol	66%	15-110%
4165-60-0	Nitrobenzene-d5	61%	30-130%
321-60-8	2-Fluorobiphenyl	57%	30-130%
1718-51-0	Terphenyl-d14	79%	30-130%

Blank Spike Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32597-BS	I82531A.D	1	04/11/13	NS	04/10/13	OP32597	MSI3069

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19612-1, MC19612-2, MC19612-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	35.2	70	40-140
208-96-8	Acenaphthylene	50	19.1	38* a	40-140
120-12-7	Anthracene	50	39.6	79	40-140
56-55-3	Benzo(a)anthracene	50	40.5	81	40-140
50-32-8	Benzo(a)pyrene	50	35.2	70	40-140
205-99-2	Benzo(b)fluoranthene	50	37.5	75	40-140
191-24-2	Benzo(g,h,i)perylene	50	42.7	85	40-140
207-08-9	Benzo(k)fluoranthene	50	39.9	80	40-140
218-01-9	Chrysene	50	37.9	76	40-140
53-70-3	Dibenzo(a,h)anthracene	50	37.7	75	40-140
206-44-0	Fluoranthene	50	41.5	83	40-140
86-73-7	Fluorene	50	34.9	70	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	37.3	75	40-140
90-12-0	1-Methylnaphthalene	50	30.7	61	40-140
91-57-6	2-Methylnaphthalene	50	29.1	58	40-140
85-01-8	Phenanthrene	50	40.0	80	40-140
129-00-0	Pyrene	50	40.2	80	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	76%	15-110%
4165-60-0	Nitrobenzene-d5	59%	30-130%
321-60-8	2-Fluorobiphenyl	60%	30-130%
1718-51-0	Terphenyl-d14	79%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32596-BS	F62976.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945
OP32596-BSD	F62977.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945

The QC reported here applies to the following samples: Method: SW846 8270C

MC19612-1, MC19612-2, MC19612-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	100	45.0	45	46.5	47	3	30-130/20
95-57-8	2-Chlorophenol	100	56.7	57	63.7	64	12	30-130/20
59-50-7	4-Chloro-3-methyl phenol	100	77.5	78	81.3	81	5	30-130/20
120-83-2	2,4-Dichlorophenol	100	70.1	70	76.9	77	9	30-130/20
105-67-9	2,4-Dimethylphenol	100	62.4	62	64.5	65	3	30-130/20
51-28-5	2,4-Dinitrophenol	100	99.4	99	103	103	4	30-130/20
534-52-1	4,6-Dinitro-o-cresol	100	100	100	101	101	1	30-130/20
95-48-7	2-Methylphenol	100	51.5	52	56.3	56	9	30-130/20
	3&4-Methylphenol	200	101	51	114	57	12	30-130/20
88-75-5	2-Nitrophenol	100	71.0	71	78.3	78	10	30-130/20
100-02-7	4-Nitrophenol	100	46.5	47	45.6	46	2	30-130/20
87-86-5	Pentachlorophenol	100	114	114	114	114	0	30-130/20
108-95-2	Phenol	100	25.3	25* a	28.4	28* a	12	30-130/20
95-95-4	2,4,5-Trichlorophenol	100	87.2	87	91.4	91	5	30-130/20
88-06-2	2,4,6-Trichlorophenol	100	86.3	86	90.6	91	5	30-130/20
62-53-3	Aniline	50	18.0	36* a	16.8	34* a	7	40-140/20
101-55-3	4-Bromophenyl phenyl ether	50	43.7	87	38.5	77	13	40-140/20
85-68-7	Butyl benzyl phthalate	50	41.7	83	42.8	86	3	40-140/20
100-51-6	Benzyl Alcohol	50	39.1	78	38.2	76	2	40-140/20
91-58-7	2-Chloronaphthalene	100	70.7	71	67.4	67	5	40-140/20
106-47-8	4-Chloroaniline	50	32.4	65	28.8	58	12	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	50	35.4	71	32.4	65	9	40-140/20
111-44-4	bis(2-Chloroethyl)ether	50	30.7	61	29.2	58	5	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	50	36.5	73	34.9	70	4	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	50	43.2	86	38.7	77	11	40-140/20
122-66-7	1,2-Diphenylhydrazine	50	44.4	89	38.0	76	16	40-140/20
121-14-2	2,4-Dinitrotoluene	100	87.9	88	77.2	77	13	40-140/20
606-20-2	2,6-Dinitrotoluene	100	94.5	95	80.7	81	16	40-140/20
91-94-1	3,3'-Dichlorobenzidine	50	57.1	114	48.2	96	17	40-140/20
132-64-9	Dibenzofuran	50	40.0	80	36.0	72	11	40-140/20
84-74-2	Di-n-butyl phthalate	50	45.4	91	41.8	84	8	40-140/20
117-84-0	Di-n-octyl phthalate	50	50.0	100	47.2	94	6	40-140/20
84-66-2	Diethyl phthalate	50	40.1	80	40.6	81	1	40-140/20
131-11-3	Dimethyl phthalate	50	25.0	50	34.3	69	31* b	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.1	96	44.8	90	7	40-140/20
118-74-1	Hexachlorobenzene	100	87.8	88	78.7	79	11	40-140/20

* = Outside of Control Limits.

7.3.1

7

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32596-BS	F62976.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945
OP32596-BSD	F62977.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945

The QC reported here applies to the following samples: Method: SW846 8270C

MC19612-1, MC19612-2, MC19612-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	100	34.2	34* a	41.5	42	19	40-140/20
67-72-1	Hexachloroethane	100	42.0	42	49.0	49	15	40-140/20
78-59-1	Isophorone	100	79.8	80	72.5	73	10	40-140/20
88-74-4	2-Nitroaniline	50	44.5	89	40.3	81	10	40-140/20
99-09-2	3-Nitroaniline	50	44.5	89	37.8	76	16	40-140/20
100-01-6	4-Nitroaniline	50	47.7	95	40.9	82	15	40-140/20
91-20-3	Naphthalene	50	31.4	63	30.1	60	4	40-140/20
98-95-3	Nitrobenzene	100	62.1	62	58.4	58	6	40-140/20
62-75-9	n-Nitrosodimethylamine	50	19.2	38* a	19.5	39* a	2	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	50	36.8	74	35.6	71	3	40-140/20
86-30-6	N-Nitrosodiphenylamine	50	44.4	89	38.7	77	14	40-140/20
110-86-1	Pyridine	50	13.5	27* a	13.0	26* a	4	40-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	35%	38%	15-110%
4165-62-2	Phenol-d5	26%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	90%	15-110%
4165-60-0	Nitrobenzene-d5	68%	63%	30-130%
321-60-8	2-Fluorobiphenyl	70%	66%	30-130%
1718-51-0	Terphenyl-d14	90%	81%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Individual spike recoveries within acceptance limits.

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32596-MS	F62978.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945
OP32596-MSD	F62979.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945
MC19700-3	F62980.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945

The QC reported here applies to the following samples: Method: SW846 8270C

MC19612-1, MC19612-2, MC19612-3

CAS No.	Compound	MC19700-3 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	53.1	53	17	30-130/20
95-57-8	2-Chlorophenol	ND		100	58.7	59	76.8	77	27* [a]	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	78.2	78	92.7	93	17	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	72.5	73	91.1	91	23* [a]	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	62.7	63	79.7	80	24* [a]	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	101	101	112	112	10	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	101	101	113	113	11	30-130/20
95-48-7	2-Methylphenol	ND		100	50.8	51	67.4	67	28* [a]	30-130/20
	3&4-Methylphenol	ND		200	104	52	133	67	24* [a]	30-130/20
88-75-5	2-Nitrophenol	ND		100	73.4	73	94.1	94	25* [a]	30-130/20
100-02-7	4-Nitrophenol	ND		100	44.8	45	51.7	52	14	30-130/20
87-86-5	Pentachlorophenol	ND		100	114	114	128	128	12	30-130/20
108-95-2	Phenol	ND		100	28.0	28* [b]	36.6	37	27* [a]	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	91.5	92	105	105	14	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	86.8	87	103	103	17	30-130/20
62-53-3	Aniline	ND		50	17.3	35* [b]	21.1	42	20	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	41.4	83	46.1	92	11	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	38.5	77	42.3	85	9	40-140/20
100-51-6	Benzyl Alcohol	ND		50	35.8	72	49.8	100	33* [a]	40-140/20
91-58-7	2-Chloronaphthalene	ND		100	68.5	69	79.6	80	15	40-140/20
106-47-8	4-Chloroaniline	ND		50	30.7	61	36.5	73	17	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	33.0	66	42.1	84	24* [a]	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	29.3	59	38.7	77	28* [a]	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	35.2	70	45.3	91	25* [a]	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	39.8	80	44.7	89	12	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	41.5	83	45.6	91	9	40-140/20
121-14-2	2,4-Dinitrotolnene	ND		100	83.2	83	96.0	96	14	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		100	87.1	87	100	100	14	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	51.4	103	54.1	108	5	40-140/20
132-64-9	Dibenzofuran	ND		50	37.9	76	42.3	85	11	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	41.6	83	46.2	92	10	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	47.3	95	52.4	105	10	40-140/20
84-66-2	Diethyl phthalate	ND		50	37.1	74	41.7	83	12	40-140/20
131-11-3	Dimethyl phthalate	ND		50	23.4	47	25.5	51	9	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	45.1	90	49.5	99	9	40-140/20
118-74-1	Hexachlorobenzene	ND		100	84.7	85	96.5	97	13	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32596-MS	F62978.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945
OP32596-MSD	F62979.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945
MC19700-3	F62980.D	1	04/12/13	KR	04/10/13	OP32596	MSF2945

The QC reported here applies to the following samples: Method: SW846 8270C

MC19612-1, MC19612-2, MC19612-3

CAS No.	Compound	MC19700-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		100	34.4	34* [b]	41.0	41	18	40-140/20
67-72-1	Hexachloroethane	ND		100	41.3	41	48.7	49	16	40-140/20
78-59-1	Isophorone	ND		100	77.3	77	95.1	95	21* [a]	40-140/20
88-74-4	2-Nitroaniline	ND		50	41.8	84	48.7	97	15	40-140/20
99-09-2	3-Nitroaniline	ND		50	40.1	80	44.3	89	10	40-140/20
100-01-6	4-Nitroaniline	ND		50	42.6	85	48.0	96	12	40-140/20
91-20-3	Naphthalene	ND		50	30.1	60	37.5	75	22* [a]	40-140/20
98-95-3	Nitrobenzene	ND		100	62.0	62	79.1	79	24* [a]	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	19.5	39* [b]	24.3	49	22* [a]	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	35.8	72	43.5	87	19	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	41.5	83	45.6	91	9	40-140/20
110-86-1	Pyridine	ND		50	13.5	27* [b]	17.7	35* [b]	27* [a]	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19700-3	Limits
367-12-4	2-Fluorophenol	35%	46%	39%	15-110%
4165-62-2	Phenol-d5	25%	32%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	87%	97%	85%	15-110%
4165-60-0	Nitrobenzene-d5	63%	82%	66%	30-130%
321-60-8	2-Fluorobiphenyl	67%	80%	63%	30-130%
1718-51-0	Terphenyl-d14	84%	94%	90%	30-130%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32597-MS	I82533A.D	1	04/11/13	NS	04/10/13	OP32597	MSI3069
OP32597-MSD	I82534A.D	1	04/11/13	NS	04/10/13	OP32597	MSI3069
MC19700-4	I82535A.D	1	04/11/13	NS	04/10/13	OP32597	MSI3069

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19612-1, MC19612-2, MC19612-3

CAS No.	Compound	MC19700-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	33.2	66	36.9	74	11	40-140/20
208-96-8	Acenaphthylene	ND		50	17.2	34* [a]	20.8	42	19	40-140/20
120-12-7	Anthracene	ND		50	37.6	75	41.2	82	9	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	38.2	76	42.1	84	10	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	33.5	67	36.5	73	9	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	36.1	72	39.1	78	8	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	40.7	81	45.0	90	10	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	37.7	75	42.4	85	12	40-140/20
218-01-9	Chrysene	ND		50	36.3	73	39.6	79	9	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	36.1	72	39.6	79	9	40-140/20
206-44-0	Fluoranthene	ND		50	39.0	78	43.1	86	10	40-140/20
86-73-7	Flnorene	ND		50	32.7	65	36.4	73	11	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	35.6	71	39.0	78	9	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	29.6	59	34.3	69	15	40-140/20
91-57-6	2-Methylnaphthalene	0.061	J	50	27.8	55	32.9	66	17	40-140/20
85-01-8	Phenanthrene	ND		50	37.8	76	41.4	83	9	40-140/20
129-00-0	Pyrene	ND		50	38.3	77	42.5	85	10	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19700-4	Limits
367-12-4	2-Fluorophenol	32%	42%	35%	15-110%
4165-62-2	Phenol-d5	23%	29%	26%	15-110%
118-79-6	2,4,6-Tribromophenol	70%	79%	65%	15-110%
4165-60-0	Nitrobenzene-d5	56%	71%	59%	30-130%
321-60-8	2-Fluorobiphenyl	57%	65%	57%	30-130%
1718-51-0	Terphenyl-d14	75%	83%	81%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2945-CC2937	Injection Date:	04/12/13
Lab File ID:	F62974.D	Injection Time:	07:51
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	28112	4.10	105189	5.09	66873	6.53	127278	7.89	140927	10.66	132955	12.14
Upper Limit [a]	56224	4.60	210378	5.59	133746	7.03	254556	8.39	281854	11.16	265910	12.64
Lower Limit [b]	14056	3.60	52595	4.59	33437	6.03	63639	7.39	70464	10.16	66478	11.64
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
OP32598-MB	24979	4.10	93643	5.09	59894	6.53	110628	7.88	123155	10.66	113492	12.14
OP32596-MB	24979	4.10	93643	5.09	59894	6.53	110628	7.88	123155	10.66	113492	12.14
OP32596-BS	22986	4.10	85512	5.09	54034	6.53	102304	7.89	117073	10.66	110763	12.14
OP32598-BS	22986	4.10	85512	5.09	54034	6.53	102304	7.89	117073	10.66	110763	12.14
OP32596-BSD	25466	4.10	97500	5.09	62057	6.53	119058	7.89	134354	10.66	124000	12.14
OP32596-MS	26785	4.10	99995	5.09	63301	6.53	117690	7.89	129599	10.66	116959	12.14
OP32598-MS	26785	4.10	99995	5.09	63301	6.53	117690	7.89	129599	10.66	116959	12.14
OP32598-MSD	28052	4.10	104153	5.09	66536	6.53	125683	7.89	141176	10.66	130185	12.14
OP32596-MSD	28052	4.10	104153	5.09	66536	6.53	125683	7.89	141176	10.66	130185	12.14
MC19700-5	25915	4.10	98327	5.09	60578	6.53	111543	7.88	124579	10.66	114677	12.14
MC19700-3	25915	4.10	98327	5.09	60578	6.53	111543	7.88	124579	10.66	114677	12.14
ZZZZZZ	26133	4.10	98160	5.09	61944	6.53	112412	7.88	125238	10.66	116691	12.13
ZZZZZZ	24435	4.09	91079	5.09	58106	6.53	108484	7.88	122427	10.66	117035	12.14
ZZZZZZ	24213	4.10	92176	5.09	58567	6.53	107929	7.88	122548	10.66	115973	12.13
ZZZZZZ	27137	4.10	100868	5.09	63619	6.52	115715	7.88	130372	10.66	120462	12.13
ZZZZZZ	28339	4.10	105676	5.09	66458	6.52	122454	7.88	134253	10.66	125503	12.13
ZZZZZZ	28007	4.10	104544	5.09	65321	6.53	119558	7.88	133488	10.66	126439	12.14
ZZZZZZ	26432	4.10	100493	5.08	63092	6.52	114831	7.88	126938	10.66	119396	12.13

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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2946-CC2937	Injection Date:	04/12/13
Lab File ID:	F62990.D	Injection Time:	14:13
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	30630	4.10	116202	5.09	74592	6.53	141837	7.89	163580	10.66	152174	12.14
Upper Limit [a]	61260	4.60	232404	5.59	149184	7.03	283674	8.39	327160	11.16	304348	12.64
Lower Limit [b]	15315	3.60	58101	4.59	37296	6.03	70919	7.39	81790	10.16	76087	11.64
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
MC19612-1	26550	4.10	98632	5.09	63434	6.53	114937	7.88	134003	10.66	126647	12.13
MC19612-2	27029	4.10	102696	5.09	64940	6.53	119291	7.88	137522	10.66	127330	12.13
MC19612-3	26391	4.10	97663	5.09	62034	6.52	113507	7.88	131997	10.66	123145	12.13
ZZZZZZ	26250	4.09	97769	5.09	61997	6.52	115673	7.88	130999	10.66	124641	12.13
ZZZZZZ	26303	4.09	99509	5.09	64055	6.53	117603	7.88	133783	10.66	127380	12.14
ZZZZZZ	25508	4.10	97118	5.08	61808	6.52	114351	7.88	132025	10.66	124130	12.13
ZZZZZZ	37226	4.09	138503	5.09	86116	6.53	154417	7.88	158154	10.66	140062	12.14
ZZZZZZ	34245	4.10	127458	5.09	78306	6.52	138938	7.88	146738	10.66	142308	12.14
ZZZZZZ	33705	4.09	129351	5.09	83184	6.53	153813	7.88	170239	10.66	156158	12.14
ZZZZZZ	26211	4.10	100905	5.08	64105	6.52	117679	7.88	135216	10.66	136054	12.14
ZZZZZZ	30301	4.10	118688	5.09	80484	6.53	148144	7.88	158246	10.66	151732	12.14
ZZZZZZ	21278	4.10	79615	5.09	50483	6.52	94324	7.88	109897	10.66	105783	12.14
ZZZZZZ	20276	4.10	76111	5.09	46462	6.52	87811	7.88	105762	10.66	101021	12.14
ZZZZZZ	24028	4.10	90797	5.08	57634	6.52	107693	7.88	126426	10.66	125577	12.14
ZZZZZZ	23854	4.10	88774	5.09	56488	6.53	103260	7.88	125460	10.66	121170	12.14
ZZZZZZ	26887	4.10	99529	5.09	63679	6.52	118324	7.88	138672	10.66	134986	12.14
ZZZZZZ	28095	4.10	107623	5.08	68675	6.52	127923	7.88	149357	10.66	144846	12.14
ZZZZZZ	24236	4.09	90779	5.09	58055	6.53	110321	7.88	123100	10.66	122529	12.14
ZZZZZZ	23867	4.10	90537	5.09	58622	6.53	111269	7.88	128580	10.66	133072	12.14
ZZZZZZ	21677	4.10	81539	5.09	52970	6.52	100700	7.88	115040	10.66	117890	12.14
ZZZZZZ	26243	4.10	99650	5.09	64592	6.53	119215	7.89	134478	10.66	139071	12.14
ZZZZZZ	23739	4.10	92488	5.09	59418	6.52	111313	7.88	128822	10.67	131482	12.14
ZZZZZZ	27060	4.10	99920	5.09	63127	6.53	112128	7.88	128488	10.66	127237	12.14
ZZZZZZ	25626	4.10	98299	5.09	63342	6.53	116305	7.89	139186	10.66	135222	12.14
ZZZZZZ	20894	4.10	79101	5.08	51836	6.53	97708	7.88	117246	10.67	118884	12.14
ZZZZZZ	25433	4.10	96436	5.09	64737	6.53	118062	7.88	145798	10.66	145285	12.14
ZZZZZZ	25534	4.10	96321	5.09	61969	6.53	115755	7.88	137998	10.66	137006	12.14
ZZZZZZ	25162	4.10	95555	5.09	61821	6.53	115576	7.89	138528	10.66	133609	12.14

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

7.5.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2946-CC2937	Injection Date:	04/12/13
Lab File ID:	F62990.D	Injection Time:	14:13
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 minntes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3069-CC3044	Injection Date:	04/11/13
Lab File ID:	I82529.D	Injection Time:	09:06
Instrument ID:	GCMS1	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	205110	3.41	522036	4.37	269186	5.77	494734	7.01	384640	9.73	729482	11.13
Upper Limit [a]	410220	3.91	1044072	4.87	538372	6.27	989468	7.51	769280	10.23	1458964	11.63
Lower Limit [b]	102555	2.91	261018	3.87	134593	5.27	247367	6.51	192320	9.23	364741	10.63
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
OP32597-MB	168303	3.40	437637	4.37	221350	5.77	387934	7.01	314926	9.73	604758	11.13
OP32599-MB	168303	3.40	437637	4.37	221350	5.77	387934	7.01	314926	9.73	604758	11.13
OP32597-BS	192181	3.41	488053	4.37	248685	5.77	447825	7.01	335604	9.74	651516	11.13
OP32599-BS	192181	3.41	488053	4.37	248685	5.77	447825	7.01	335604	9.74	651516	11.13
OP32597-MS	174446	3.41	447290	4.37	229206	5.77	412180	7.01	311225	9.74	598082	11.13
OP32599-MS	174446	3.41	447290	4.37	229206	5.77	412180	7.01	311225	9.74	598082	11.13
OP32597-MSD	187303	3.41	477717	4.37	246520	5.77	436883	7.01	330415	9.74	639777	11.13
OP32599-MSD	187303	3.41	477717	4.37	246520	5.77	436883	7.01	330415	9.74	639777	11.13
MC19700-7	171916	3.40	445796	4.37	225809	5.77	395619	7.01	316640	9.73	598967	11.12
MC19700-4	171916	3.40	445796	4.37	225809	5.77	395619	7.01	316640	9.73	598967	11.12
ZZZZZZ	201396	3.40	524336	4.37	260967	5.77	464023	7.01	375463	9.74	736123	11.13
ZZZZZZ	205569	3.40	527381	4.37	264560	5.76	465033	7.01	371250	9.73	712171	11.13
ZZZZZZ	186891	3.40	479523	4.37	244788	5.76	425344	7.01	329044	9.73	624473	11.13
OP32595-MB	189815	3.40	487477	4.37	249943	5.76	434715	7.01	341151	9.74	667820	11.13
OP32595-BS	202898	3.41	516046	4.37	261758	5.77	464552	7.01	344227	9.74	665366	11.13
ZZZZZZ	168446	3.41	432762	4.37	220218	5.76	387092	7.00	327492	9.73	645523	11.13
ZZZZZZ	187011	3.40	485625	4.37	230390	5.76	446009	7.01	348948	9.73	645275	11.13
ZZZZZZ	190424	3.40	484908	4.37	243034	5.76	428103	7.00	328491	9.73	631071	11.13
ZZZZZZ	185440	3.40	479789	4.37	244688	5.76	428069	7.01	332030	9.73	634222	11.13
ZZZZZZ	197684	3.40	508382	4.37	255027	5.76	446902	7.01	358155	9.73	698120	11.13
ZZZZZZ	181377	3.40	484779	4.37	245735	5.76	434309	7.00	343438	9.73	669449	11.13
ZZZZZZ	177575	3.40	494591	4.37	245669	5.76	427635	7.01	339820	9.73	668075	11.13
ZZZZZZ	184957	3.40	512837	4.37	257516	5.76	454610	7.01	354180	9.73	696371	11.13
ZZZZZZ	174074	3.40	466830	4.37	236901	5.76	453252	7.01	359307	9.73	713283	11.13
ZZZZZZ	181685	3.40	474925	4.37	255888	5.76	440963	7.01	354284	9.73	703643	11.13
ZZZZZZ	168615	3.40	451044	4.37	230229	5.76	449258	7.00	354688	9.73	689753	11.13

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.

Semivolatile Internal Standard Area Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3069-CC3044	Injection Date:	04/11/13
Lab File ID:	I82529.D	Injection Time:	09:06
Instrument ID:	GCMSI	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

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.5.3

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Semivolatile Internal Standard Area Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3070-CC3044	Injection Date:	04/12/13
Lab File ID:	I82564.D	Injection Time:	08:51
Instrument ID:	GCMS1	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	217065	3.41	550139	4.37	282765	5.76	522238	7.01	400353	9.74	761952	11.13
Upper Limit [a]	434130	3.91	1100278	4.87	565530	6.26	1044476	7.51	800706	10.24	1523904	11.63
Lower Limit [b]	108533	2.91	275070	3.87	141383	5.26	261119	6.51	200177	9.24	380976	10.63
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	197576	3.40	504469	4.37	252308	5.76	431565	7.00	332078	9.73	650765	11.13
MC19612-1	179786	3.40	451077	4.37	229882	5.76	403215	7.00	321898	9.73	640296	11.13
MC19612-2	180728	3.41	461493	4.37	240152	5.76	414996	7.01	333260	9.73	651414	11.13
MC19612-3	180140	3.40	464521	4.37	234218	5.76	403781	7.00	323907	9.73	632455	11.12
ZZZZZZ	197491	3.40	502506	4.37	252261	5.76	440015	7.01	341015	9.73	656231	11.13
ZZZZZZ	191199	3.40	502531	4.37	236958	5.76	464547	7.01	360013	9.73	690395	11.13
ZZZZZZ	207751	3.40	535283	4.37	247703	5.76	483971	7.00	375724	9.73	740758	11.13
ZZZZZZ	217145	3.40	546495	4.37	276383	5.76	486216	7.00	382263	9.73	740162	11.12
ZZZZZZ	213230	3.41	551135	4.37	278223	5.76	500665	7.01	400560	9.73	775189	11.13
ZZZZZZ	189170	3.41	500891	4.37	252549	5.76	458226	7.00	370429	9.73	713230	11.13
ZZZZZZ	185560	3.41	474564	4.37	246800	5.76	443703	7.01	359908	9.73	697306	11.13
ZZZZZZ	189788	3.41	476546	4.37	234882	5.77	411087	7.01	325529	9.73	651392	11.13
ZZZZZZ	177259	3.40	456636	4.37	236061	5.76	427393	7.01	348531	9.73	663999	11.13

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Aceuaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(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.

Semivolatile Internal Standard Area Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU693-CC623	Injection Date:	04/18/13
Lab File ID:	U13680.D	Injection Time:	10:47
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	106827	2.87	390161	3.84	242967	5.23	434187	6.43	471903	9.10	451244	10.62
Upper Limit [a]	213654	3.37	780322	4.34	485934	5.73	868374	6.93	943806	9.60	902488	11.12
Lower Limit [b]	53414	2.37	195081	3.34	121484	4.73	217094	5.93	235952	8.60	225622	10.12
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
MC19626-10	114883	2.87	432670	3.84	271462	5.23	471399	6.42	549383	9.09	529403	10.62
MC19612-2	117691	2.87	438322	3.84	275084	5.23	481921	6.42	564150	9.09	525930	10.62
OP32689-MB	97074	2.87	355951	3.84	218818	5.23	381442	6.43	435158	9.10	402802	10.62
OP32689-BS	115197	2.88	391923	3.84	244742	5.24	427993	6.43	476070	9.10	458640	10.63
OP32689-MS	120961	2.87	426050	3.84	255308	5.23	442664	6.43	473525	9.10	465580	10.63
OP32689-MSD	110099	2.87	394493	3.84	233975	5.23	404797	6.43	434924	9.10	429437	10.63
ZZZZZZ	116090	2.87	413402	3.84	247415	5.23	425358	6.43	482413	9.10	459200	10.62
ZZZZZZ	116203	2.87	419831	3.84	261013	5.23	441479	6.42	506123	9.09	467599	10.62
ZZZZZZ	122838	2.87	442235	3.84	264096	5.23	449188	6.43	501783	9.09	481778	10.62
ZZZZZZ	131799	2.87	461010	3.84	268776	5.23	445320	6.43	457074	9.11	469457	10.65
ZZZZZZ	125739	2.87	452596	3.84	261248	5.23	447646	6.43	470306	9.10	465870	10.63
ZZZZZZ	116355	2.87	419082	3.84	260005	5.23	442975	6.42	483516	9.10	479548	10.62
ZZZZZZ	124977	2.87	445316	3.84	277824	5.23	460655	6.43	523841	9.09	492686	10.62
ZZZZZZ	135103	2.87	481211	3.84	302563	5.23	502419	6.43	548381	9.09	525627	10.62
ZZZZZZ	152013	2.87	534284	3.84	320050	5.23	528782	6.42	560575	9.09	537338	10.62
ZZZZZZ	133251	2.87	475293	3.84	286568	5.23	471790	6.42	516047	9.09	475508	10.62
ZZZZZZ	140659	2.87	501595	3.84	289224	5.23	472508	6.43	505574	9.11	498381	10.65
ZZZZZZ	135394	2.87	492070	3.84	293643	5.23	479365	6.43	506055	9.12	488697	10.66
ZZZZZZ	138920	2.87	496382	3.84	297506	5.23	494956	6.43	537940	9.10	502334	10.62
ZZZZZZ	121834	2.87	445064	3.84	267760	5.23	453973	6.43	516904	9.10	474263	10.63
ZZZZZZ	123661	2.87	454924	3.84	277906	5.23	449925	6.43	491686	9.11	468238	10.64
ZZZZZZ	127217	2.87	465600	3.84	270750	5.23	454207	6.43	477937	9.11	451221	10.65

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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19612-1	F62991.D	25.0	18.0	68.0	71.0	60.0	68.0
MC19612-2	U13682.D	44.0	29.0	76.0	64.0	61.0	57.0
MC19612-2	F62992.D	30.0	31.0	86.0	68.0	60.0	62.0
MC19612-3	F62993.D	35.0	26.0	81.0	61.0	57.0	55.0
OP32596-BS	F62976.D	35.0	26.0	95.0	68.0	70.0	90.0
OP32596-BSD	F62977.D	38.0	28.0	90.0	63.0	66.0	81.0
OP32596-MB	F62975A.D	40.0	28.0	85.0	71.0	62.0	86.0
OP32596-MS	F62978.D	35.0	25.0	87.0	63.0	67.0	84.0
OP32596-MSD	F62979.D	46.0	32.0	97.0	82.0	80.0	94.0

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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19612-1	I82566.D	61.0	55.0	61.0
MC19612-2	I82567.D	58.0	55.0	59.0
MC19612-3	I82568.D	55.0	53.0	52.0
OP32597-BS	I82531A.D	59.0	60.0	79.0
OP32597-MB	I82530A.D	61.0	57.0	79.0
OP32597-MS	I82533A.D	56.0	57.0	75.0
OP32597-MSD	I82534A.D	71.0	65.0	83.0

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

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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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-MB	BK23581.D	1	04/16/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19612-1, MC19612-2, MC19612-3, MC19612-5

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)	109%	36-173%
460-00-4	Bromofluorobenzene (S)	113%	36-173%

Blank Spike Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-BS	BK23582.D	1	04/16/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19612-1, MC19612-2, MC19612-3, MC19612-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.076	107	60-140
106-93-4	1,2-Dibromoethane	0.071	0.092	130	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	108%	36-173%
460-00-4	Bromofluorobenzene (S)	112%	36-173%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-MS	BK23583.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
OP32677-MSD	BK23584.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
MC19670-4	BK23585.D	1	04/17/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19612-1, MC19612-2, MC19612-3, MC19612-5

CAS No.	Compound	MC19670-4 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		0.0694	0.078	112	0.080	116	3	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0694	0.086	124	0.091	132	6	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19670-4	Limits
460-00-4	Bromofluorobenzene (S)	117%	122%	108%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	125%	114%	36-173%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19612-1	BK23617.D	116.0	114.0
MC19612-2	BK23618.D	131.0	120.0
MC19612-3	BK23619.D	112.0	111.0
MC19612-5	BK23620.D	114.0	113.0
OP32677-BS	BK23582.D	108.0	112.0
OP32677-MB	BK23581.D	109.0	113.0
OP32677-MS	BK23583.D	117.0	121.0
OP32677-MSD	BK23584.D	122.0	125.0

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: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK829-ICC829	Injection Date:	04/16/13
Lab File ID:	BK23576.D	Injection Time:	21:25
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.44	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP32677-MB	BK23581.D	04/16/13	23:29	4.45	4.88
OP32677-BS	BK23582.D	04/16/13	23:56	4.45	4.88
OP32677-MS	BK23583.D	04/17/13	00:22	4.45	4.88
OP32677-MSD	BK23584.D	04/17/13	00:48	4.45	4.88
MC19670-4	BK23585.D	04/17/13	01:15	4.45	4.88
ZZZZZZ	BK23586.D	04/17/13	01:42	4.45	4.88
ZZZZZZ	BK23587.D	04/17/13	02:09	4.45	4.88
ZZZZZZ	BK23588.D	04/17/13	02:35	4.45	4.88
ZZZZZZ	BK23589.D	04/17/13	03:01	4.45	4.88
ZZZZZZ	BK23590.D	04/17/13	03:28	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.1 8

GC Surrogate Retention Time Summary

Job Number: MC19612
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK830-ICC830	Injection Date:	04/17/13
Lab File ID:	BK23607.D	Injection Time:	11:07
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23610A.D	04/17/13	12:18	4.45	4.88
MC19612-1	BK23617.D	04/17/13	15:53	4.45	4.88
MC19612-2	BK23618.D	04/17/13	16:16	4.45	4.88
MC19612-3	BK23619.D	04/17/13	16:39	4.45	4.88
MC19612-5	BK23620.D	04/17/13	17:02	4.45	4.88
ZZZZZZ	BK23621.D	04/17/13	17:26	4.45	4.88

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 – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19670

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/13/2013

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

Sample Identification	Sample Identification
MW16-ROX-040813	MW16-ROX-040813-EB
MW3-ROX-040813	MW12-ROX-040813
MW11-ROX-040813	TB-ROX-040813-HCL
TB-ROX-0140813-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. VOC and SVOC MS/MSD recoveries and MS/MSD RPDs were outside evaluation criteria in sample MW12-ROX-040813. VOCs were detected in the equipment blank. Additionally, the initial calibration verification for acetone and acrolein exceeded 50 percent difference (%D). These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated two of two coolers were received by the laboratory at temperatures of 0.4ºC and 0.1ºC which are outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required. Additionally, samples were logged in correctly by the laboratory using sample bottle time designations due to sample times inadvertently left off of the COC; 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
MW16-ROX-040813-EB	VOCs	Acetone	4.1 ug/L
MW16-ROX-040813-EB	VOCs	Benzene	0.39 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 required qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW16-ROX-040813	VOCs	Benzene	0.58 ug/L	**U**
MW12-ROX-040813	VOCs	Benzene	0.88 ug/L	**U**
MW11-ROX-040813	VOCs	Benzene	0.65 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
MSV699-BS/BSD	VOCs	Acetone	**136/135**	1	70-130/25
MSV699-BS/BSD	VOCs	Acrolein	**51/47**	9	70-130/25
MSV699-BS/BSD	VOCs	Bromomethane	**134**/130	3	70-130/25
MSV699-BS/BSD	VOCs	Naphthalene	128/**134**	4	70-130/25
OP32654-BS	SVOCs	3,3'-Dichlorobenzidine	**12**	NA	40-140
OP32654-BS	SVOCs	Hexachlorocyclopentadiene	**39**	NA	40-140
OP32654-BS	SVOCs	Pyridine	**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/LCSD MSV699-BS/BSD was associated with equipment blank and trip blank quality control samples and are not qualified.

Sample ID	Parameter	Analyte	Qualification
MW16-ROX-040813	VOCs	Acrolein	**UJ**
MW3-ROX-040813	VOCs	Acrolein	**UJ**
MW12-ROX-040813	VOCs	Acrolein	**UJ**
MW11-ROX-040813	VOCs	Acrolein	**UJ**
MW16-ROX-040813	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW16-ROX-040813	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW16-ROX-040813	SVOCs	Pyridine	**UJ**
MW3-ROX-040813	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW3-ROX-040813	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW3-ROX-040813	SVOCs	Pyridine	**UJ**
MW12-ROX-040813	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW12-ROX-040813	SVOCs	Hexachlorocyclopentadiene	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW12-ROX-040813	SVOCs	Pyridine	**UJ**
MW11-ROX-040813	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW11-ROX-040813	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW11-ROX-040813	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 MW12-ROX-040813 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-040813	VOCs	Acrylonitrile	130/**134**	3	70-130/30
MW12-ROX-040813	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	70-130/30
MW12-ROX-040813	VOCs	Naphthalene	105/**142**	**31**	70-130/30
MW12-ROX-040813	VOCs	1,1,2,2-Tetrachloroethane	**133/136**	2	70-130/30
MW12-ROX-040813	SVOCs	Aniline	**34/29**	158	40-140/20
MW12-ROX-040813	SVOCs	3,3'-Dichlorobenzidine	**6/4**	**27**	40-140/20
MW12-ROX-040813	SVOCs	Pyridine	**37**/40	6	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?

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?

Yes, the initial calibration verification for acetone and acrolein exceeded 50 percent difference (%D. Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of acrolein was required. Acetone in associated samples was qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW16-ROX-040813	VOCs	Acetone	**UJ**
MW3-ROX-040813	VOCs	Acetone	**UJ**
MW12-ROX-040813	VOCs	Acetone	**UJ**
MW11-ROX-040813	VOCs	Acetone	**UJ**

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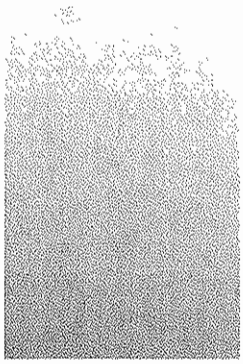
05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19670

Sampling Date: 04/08/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **90**

Reviewed on 5/13/2013

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)

Sections: 1 2 3 4 5 6 7 8

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Sample Summary

Shell Oil

Job No: MC19670

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19670-1	04/08/13	10:05	LRMM	04/09/13	AQ	Ground Water	MW16-ROX-040813
MC19670-2	04/08/13	10:30	LRMM	04/09/13	AQ	Equipment Blank	MW16-ROX-040813-EB
MC19670-3	04/08/13	11:10	LRMM	04/09/13	AQ	Ground Water	MW3-ROX-040813
MC19670-4	04/08/13	13:15	LRMM	04/09/13	AQ	Ground Water	MW12-ROX-040813
MC19670-4D	04/08/13	13:15	LRMM	04/09/13	AQ	Water Dup/MSD	MW12-ROX-040813
MC19670-4S	04/08/13	13:15	LRMM	04/09/13	AQ	Water Matrix Spike	MW12-ROX-040813
MC19670-5	04/08/13	14:40	LRMM	04/09/13	AQ	Ground Water	MW11-ROX-040813
MC19670-6	04/08/13	00:00	LRMM	04/09/13	AQ	Trip Blank Water	TB-ROX-040813-HCL
MC19670-7	04/08/13	00:00	LRMM	04/09/13	AQ	Trip Blank Water	TB-ROX-040813-ST

ACCUTEST LABORATORIES

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC19670
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	Report Date	4/25/2013 10:18:15 AM

5 Sample(s) and 2 Trip Blank(s) were collected on 04/08/2013 and were received at Accutest on 04/09/2013 properly preserved, at 0.4 Deg. C and intact. These Samples received an Accutest job number of MC19670. 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: MSV699

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19670-4MS, MC19670-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MSV699-BS for Acetone, Acrolein, Bromomethane are outside control limits. Blank Spike meets program technical requirements.
- MSV699-BSD for Acetone, Acrolein, Naphthalene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 2-Chloroethyl vinyl ether are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 1,1,2,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrylonitrile, Naphthalene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for Naphthalene are outside control limits for sample MC19670-4MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Initial calibration verification standard MSV692-ICV692 for Acrolein, acetone exceed 50% Difference. Acrolein and Acetone are within criteria in continuing calibration check standard MSV699-CC692.

Extractables by GCMS By Method SW846 8270C

Matrix AQ Batch ID: OP32654

- 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) MC19670-4MS, MC19670-4MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 3,3'-Dichlorobenzidine, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 3,3'-Dichlorobenzidine, Aniline, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Aniline, 3,3'-Dichlorobenzidine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for 3,3'-Dichlorobenzidine are outside control limits for sample OP32654-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: OP32655

- 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) MC19670-4MS, MC19670-4MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP32677

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19670-4MS, MC19670-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verifcation standard GBK829-ICV829 for 4-Bromofluorobenzene exceeded criteria. Target recovery satisfactory.

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(MC19670).

Summary of Hits

Job Number: MC19670
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/08/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19670-1	MW16-ROX-040813					
Benzene		0.58	0.50	0.24	ug/l	SW846 8260B
2-Methylnaphthalene		0.058 J	0.21	0.054	ug/l	SW846 8270C BY SIM
MC19670-2	MW16-ROX-040813-EB					
Acetone		4.1 J	5.0	3.0	ug/l	SW846 8260B
Benzene		0.39 J	0.50	0.24	ug/l	SW846 8260B
MC19670-3	MW3-ROX-040813					
Benzene		8.0	0.50	0.24	ug/l	SW846 8260B
MC19670-4	MW12-ROX-040813					
Benzene		0.88	0.50	0.24	ng/l	SW846 8260B
Fluoranthene		0.044 J	0.10	0.034	ug/l	SW846 8270C BY SIM
MC19670-5	MW11-ROX-040813					
Benzene		0.65	0.50	0.24	ug/l	SW846 8260B
MC19670-6	TB-ROX-040813-HCL					
No hits reported in this sample.						
MC19670-7	TB-ROX-040813-ST					
No hits reported in this sample.						

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW16-ROX-040813		
Lab Sample ID:	MC19670-1	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17650.D	1	04/18/13	AMY	n/a	n/a	MSV699
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	UJ
107-13-1	Acrylouitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	~~0.58~~ 0.58	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	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	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	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	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 value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW16-ROX-040813		
Lab Sample ID:	MC19670-1	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropaue	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-Trichloroethaue	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:	MW16-ROX-040813		
Lab Sample ID:	MC19670-1	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	104%		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:	MW16-ROX-040813		
Lab Sample ID:	MC19670-1	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11179.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ng/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.66	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.40	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	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:	MW16-ROX-040813		
Lab Sample ID:	MC19670-1	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.52	ng/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethaue	ND	5.2	0.45	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.83	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		15-110%
4165-62-2	Phenol-d5	41%		15-110%
118-79-6	2,4,6-Tribromophenol	86%		15-110%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%
1718-51-0	Terphenyl-d14	101%		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:	MW16-ROX-040813		
Lab Sample ID:	MC19670-1	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82599.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071
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	ND	0.10	0.014	ng/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	ng/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	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	0.058	0.21	0.054	ug/l	J
85-01-8	Phenanthrene	ND	0.052	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.037	ug/l	

CAS No.	Surrogate Recoverics	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	71%		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:	MW16-ROX-040813		
Lab Sample ID:	MC19670-1	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23621.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
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)	106%		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:	MW16-ROX-040813-EB		
Lab Sample ID:	MC19670-2	Date Sampled:	04/08/13
Matrix:	AQ - Equipment Blank	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17648.D	1	04/18/13	AMY	n/a	n/a	MSV699
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	4.1	5.0	3.0	ug/l	J
107-02-8	Acrolein	ND	25	10	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	0.39	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	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-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-Dichloroetheue	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:	MW16-ROX-040813-EB		
Lab Sample ID:	MC19670-2	Date Sampled:	04/08/13
Matrix:	AQ - Equipment Blank	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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:	MW16-ROX-040813-EB		
Lab Sample ID:	MC19670-2	Date Sampled:	04/08/13
Matrix:	AQ - Equipment Blank	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth 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	104%		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:	MW16-ROX-040813-EB		
Lab Sample ID:	MC19670-2	Date Sampled:	04/08/13
Matrix:	AQ - Equipment Blank	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11180.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
Run #2							

	Initial Volume	Final Volume
Run #1	890 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	0.43	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.37	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ng/l	
	3&4-Methylphenol	ND	11	2.3	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.56	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.66	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.6	0.58	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.64	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.36	ug/l	
62-53-3	Aniline	ND	11	0.72	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	0.23	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.6	0.96	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.65	ng/l	
91-58-7	2-Chloronaphthalene	ND	5.6	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.28	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	0.24	ng/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.26	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	0.73	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.76	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.72	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.18	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.6	0.44	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.6	0.49	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:	MW16-ROX-040813-EB		
Lab Sample ID:	MC19670-2	Date Sampled:	04/08/13
Matrix:	AQ - Equipment Blank	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.56	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.55	ug/l	
118-74-1	Hexachlorobenzene	ND	5.6	0.33	ng/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.8	ug/l	
67-72-1	Hexachloroethane	ND	5.6	0.49	ng/l	
78-59-1	Isophorone	ND	5.6	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.56	ng/l	
100-01-6	4-Nitroaniline	ND	11	4.9	ng/l	
98-95-3	Nitrobenzene	ND	5.6	0.28	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.6	0.56	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.6	0.91	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.61	ug/l	
110-86-1	Pyridine	ND	11	0.58	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		15-110%
4165-62-2	Phenol-d5	33%		15-110%
118-79-6	2,4,6-Tribromophenol	81%		15-110%
4165-60-0	Nitrobenzene-d5	82%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%
1718-51-0	Terphenyl-d14	106%		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:	MW16-ROX-040813-EB		
Lab Sample ID:	MC19670-2	Date Sampled:	04/08/13
Matrix:	AQ - Equipment Blank	Date Received:	04/09/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82600.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071
Run #2							

	Initial Volume	Final Volume
Run #1	890 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	0.034	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.020	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.056	0.027	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	0.066	ug/l	
218-01-9	Chrysene	ND	0.11	0.082	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.047	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.037	ug/l	
86-73-7	Fluorene	ND	0.11	0.052	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.052	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.22	0.16	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.22	0.058	ug/l	
85-01-8	Phenanthrene	ND	0.056	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.040	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Flnorobiphenyl	69%		30-130%
1718-51-0	Terphenyl-d14	83%		30-130%

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

Report of Analysis

Client Sample ID:	MW16-ROX-040813-EB		
Lab Sample ID:	MC19670-2	Date Sampled:	04/08/13
Matrix:	AQ - Equipment Blank	Date Received:	04/09/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23623.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
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)	117%		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:	MW3-ROX-040813		
Lab Sample ID:	MC19670-3	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17651.D	1	04/18/13	AMY	n/a	n/a	MSV699
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	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	8.0	0.50	0.24	ng/l	
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
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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:	MW3-ROX-040813		
Lab Sample ID:	MC19670-3	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-Dichloropropaue	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	ng/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-Isopropyltolueue	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	Tetrachloroetbene	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 fonnd in associated method blauk
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-040813		
Lab Sample ID:	MC19670-3	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	105%		70-130%
460-00-4	4-Bromofluorobeuzene	96%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cone.	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-040813		
Lab Sample ID:	MC19670-3	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11181.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
Run #2							

	Initial Volume	Final Volume
Run #1	880 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	5.7	0.44	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.56	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.37	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	23	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.4	ug/l	
95-48-7	2-Methylphenol	ND	11	1.5	ug/l	
	3&4-Methylphenol	ND	11	2.3	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.57	ug/l	
100-02-7	4-Nitrophenol	ND	23	0.66	ng/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.7	0.58	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.65	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.36	ug/l	
62-53-3	Aniline	ND	11	0.72	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.7	0.23	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.7	0.97	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.65	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.7	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.28	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.7	0.24	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.7	0.26	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.7	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.7	0.23	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.7	0.74	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.77	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.73	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.7	0.57	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.3	0.18	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.7	0.44	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.7	0.49	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-040813		
Lab Sample ID:	MC19670-3	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.7	0.57	ug/l	
131-11-3	Dimethyl phthalate	ND	5.7	0.57	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.3	0.56	ug/l	
118-74-1	Hexachlorobenzene	ND	5.7	0.34	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.8	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.7	0.50	ug/l	
78-59-1	Isophorone	ND	5.7	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.32	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.57	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.9	ug/l	
98-95-3	Nitrobenzene	ND	5.7	0.28	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.7	0.57	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.7	0.92	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.7	0.61	ug/l	
110-86-1	Pyridine	ND	11	0.59	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	23%		15-110%
118-79-6	2,4,6-Tribromophenol	70%		15-110%
4165-60-0	Nitrobenzene-d5	82%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%
1718-51-0	Terphenyl-d14	101%		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-040813		
Lab Sample ID:	MC19670-3	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82601.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071
Run #2							

	Initial Volume	Final Volume
Run #1	880 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	0.057	0.034	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.020	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.057	0.027	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.043	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.066	ug/l	
218-01-9	Chrysene	ND	0.11	0.083	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.047	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.037	ug/l	
86-73-7	Fluorene	ND	0.11	0.053	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.052	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.23	0.16	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.23	0.059	ug/l	
85-01-8	Phenanthrene	ND	0.057	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.040	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Flnorobiphenyl	71%		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 fouud in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-ROX-040813		
Lab Sample ID:	MC19670-3	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23624.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
Run #2							

	Initial Volume	Final Volume
Run #1	35.2 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	0.013	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)	114%		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:	MW12-ROX-040813		
Lab Sample ID:	MC19670-4	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17649.D	1	04/18/13	AMY	n/a	n/a	MSV699
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	UJ
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	~~0.88~~ 0.88	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	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-Dichlorohenzene	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-040813		
Lab Sample ID:	MC19670-4	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	
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	ng/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-040813		
Lab Sample ID:	MC19670-4	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	104%		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:	MW12-ROX-040813		
Lab Sample ID:	MC19670-4	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11182.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	
101-55-3	4-Bromophenyl pheuyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.89	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.60	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.96	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.68	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.67	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.40	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	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-040813		
Lab Sample ID:	MC19670-4	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	0.46	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.84	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.54	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	19%		15-110%
118-79-6	2,4,6-Tribromophenol	73%		15-110%
4165-60-0	Nitrobenzene-d5	87%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%
1718-51-0	Terphenyl-d14	98%		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-040813		
Lab Sample ID:	MC19670-4	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Bateh
Run #1	I82602.D	1	04/15/13	NS	04/14/13	OP32655	MS13071
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	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	0.052	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	0.044	0.10	0.034	ug/l	J
86-73-7	Fluorene	ND	0.10	0.048	ug/l	
193-39-5	Indeuo(1,2,3-cd)pyrene	ND	0.10	0.048	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.21	0.054	ug/l	
85-01-8	Phenanthrene	ND	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
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	77%		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-040813		
Lab Sample ID:	MC19670-4	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23585.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
Run #2							

	Initial Volume	Final Volume
Run #I	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# I	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	108%		36-173%
460-00-4	Bromofluorobenzene (S)	114%		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-040813		
Lab Sample ID:	MC19670-5	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17652.D	1	04/18/13	AMY	n/a	n/a	MSV699
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	U
107-02-8	Acrolein	ND	25	10	ug/l	U
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	~~0.65~~	0.50	0.24	ug/l	U
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-Dichlorohenzene	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:	MW11-ROX-040813		
Lab Sample ID:	MC19670-5	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-040813		
Lab Sample ID:	MC19670-5	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	105%		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:	MW11-ROX-040813		
Lab Sample ID:	MC19670-5	Date Sampled:	04/08/13
Matrix:	AQ - Gronnd Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11183.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.3	0.54	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.33	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.90	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.97	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.71	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.41	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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:	MW11-ROX-040813		
Lab Sample ID:	MC19670-5	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.6	ug/l	U
67-72-1	Hexachloroethane	ND	5.3	0.46	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.85	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.57	ug/l	
110-86-1	Pyridine	ND	11	0.54	ug/l	U

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		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	85%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%
1718-51-0	Terphenyl-d14	107%		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:	MW11-ROX-040813		
Lab Sample ID:	MC19670-5	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82603.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071
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	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	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	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	74%		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:	MW11-ROX-040813		
Lab Sample ID:	MC19670-5	Date Sampled:	04/08/13
Matrix:	AQ - Ground Water	Date Received:	04/09/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23625.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
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-Dihromo-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)	104%		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:	TB-ROX-040813-HCL		
Lab Sample ID:	MC19670-6	Date Sampled:	04/08/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17646.D	1	04/18/13	AMY	n/a	n/a	MSV699
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	ng/l	
74-83-9	Bromomethane	ND	2.0	1.0	ng/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 disnlfide	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	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 fonnd in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-040813-HCL		
Lab Sample ID:	MC19670-6	Date Sampled:	04/08/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-040813-HCL		
Lab Sample ID:	MC19670-6	Date Sampled:	04/08/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Speeial List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	105%		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-040813-ST		
Lab Sample ID:	MC19670-7	Date Sampled:	04/08/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/09/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23626.D	1	04/17/13	NK	04/15/13	OP32677	GBK830
Run #2							

	Initial Volume	Final Volume
Run #1	34.4 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	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	132%		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

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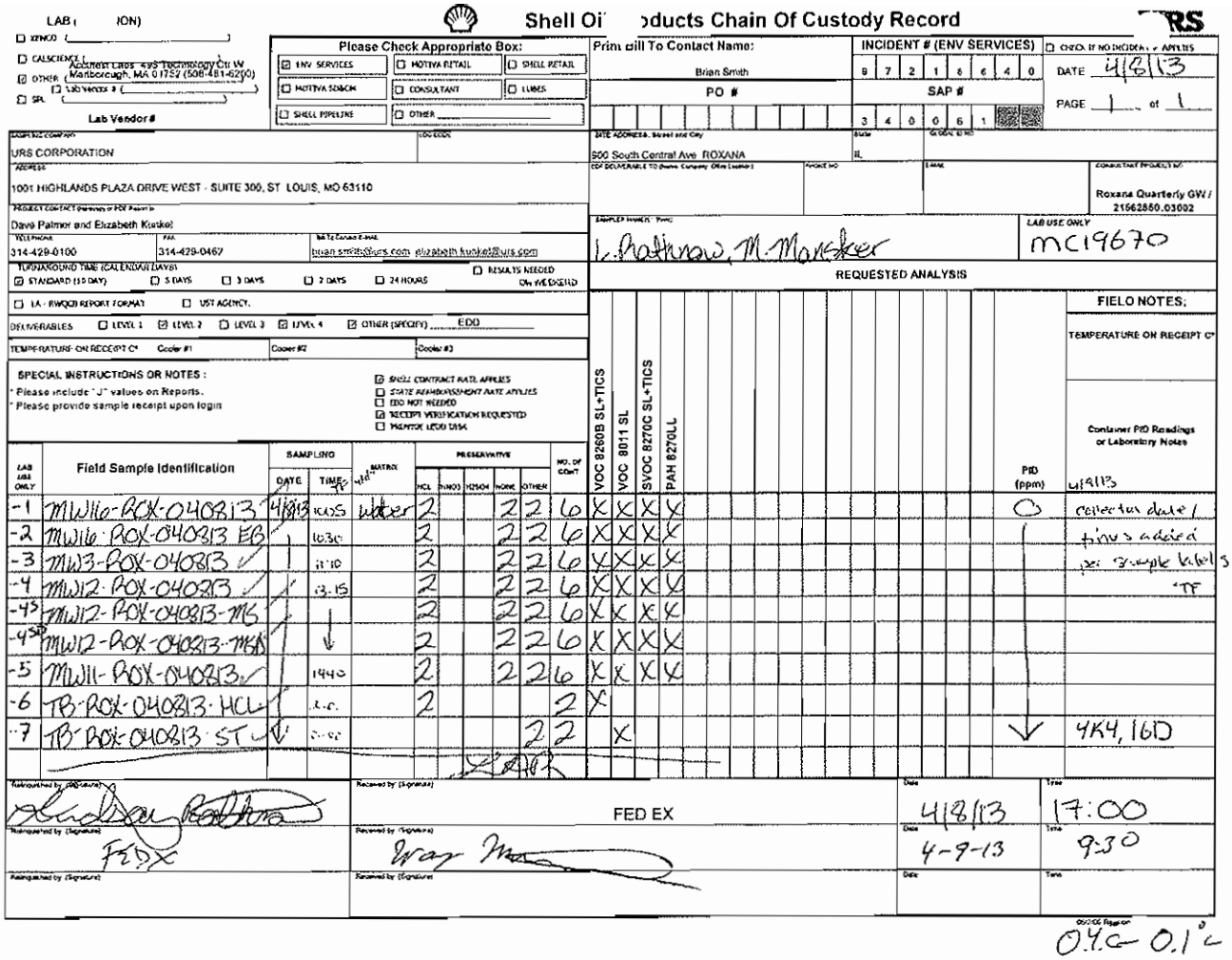
Custody Documents and Other Forms

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 (Address: Eaton Technology Ctr W Marlborough, MA 01752 (508-481-6200))
☑ OTHER (ACCUTEST LABS)
☐ SPL (_____)
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: Brian Smith
INCIDENT # (ENV SERVICES): 98121640
☐ CHECK IF NO INCIDENT # APPLIES
DATE 4/8/13
PO #
SAP # 340061
PAGE 1 of 1

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: 314-429-0467
Bill To Contact E-MAIL: brian.smith@urs.com elizabeth.kunkel@urs.com
DATE ADDRESS, Street and City: 900 South Central Ave ROXANA
STATE: IL
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562850.03002
SAMPLER NAME: PRINT: L. Mathews, M. Marsher
LAB USE ONLY: MC19670

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
☐ PRINTOUT NEED ONLY

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
																TEMPERATURE ON RECEIPT C°
																4/8/13
-1	MW16-ROX-040813	4/8/13	1005	water	2			2	2	6	X	X	X	X		collection date /
-2	MW16-ROX-040813-EB		1030		2			2	2	6	X	X	X	X		time added
-3	MW3-ROX-040813		1110		2			2	2	6	X	X	X	X		per sample label
-4	MW12-ROX-040813		1315		2			2	2	6	X	X	X	X		TF
-4S	MW12-ROX-040813-MS		↓		2			2	2	6	X	X	X	X		
-4SD	MW12-ROX-040813-MSD		↓		2			2	2	6	X	X	X	X		
-5	MW11-ROX-040813		1440		2			2	2	6	X	X	X	X		
-6	TB-ROX-040813-HCL		n.a.		2					2	X					
-7	TB-ROX-040813-ST	↓	n.a.						2	2		X			↓	4K4, 16D

Relinquished by (Signature): FED EX — Date: 4/8/13 — Time: 17:00
Received by (Signature): Fedex — Date: 4-9-13 — Time: 9:30
Relinquished by (Signature): — Date: — Time:
Received by (Signature): — Date: — Time:

COOLER Report: 0.4C - 0.1°C

5.1

MC19670: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19670 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/9/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: 900 SOUTH CENTRA **No. Coolers:** 2 **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 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 Collection data noted on first sample, no collection times recorded on COC.

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MC19670: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19670

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19670-1 Collected: 08-APR-13 10:05 By: LRMM Received: 09-APR-13 By: MW16-ROX-040813						
MC19670-1	SW846 8270C BY SIM	15-APR-13 15:56	NS	14-APR-13	MEW	B8270SIMSL
MC19670-1	SW846 8270C	15-APR-13 21:21	KR	14-APR-13	MEW	AB8270SL+
MC19670-1	SW846 8011	17-APR-13 17:26	NK	15-APR-13	PA	V8011SL
MC19670-1	SW846 8260B	18-APR-13 10:21	AMY			V8260SL+
MC19670-2 Collected: 08-APR-13 10:30 By: LRMM Received: 09-APR-13 By: MW16-ROX-040813-EB						
MC19670-2	SW846 8270C BY SIM	15-APR-13 16:19	NS	14-APR-13	MEW	B8270SIMSL
MC19670-2	SW846 8270C	15-APR-13 21:45	KR	14-APR-13	MEW	AB8270SL+
MC19670-2	SW846 8011	17-APR-13 18:12	NK	15-APR-13	PA	V8011SL
MC19670-2	SW846 8260B	18-APR-13 09:28	AMY			V8260SL+
MC19670-3 Collected: 08-APR-13 11:10 By: LRMM Received: 09-APR-13 By: MW3-ROX-040813						
MC19670-3	SW846 8270C BY SIM	15-APR-13 16:43	NS	14-APR-13	MEW	B8270SIMSL
MC19670-3	SW846 8270C	15-APR-13 22:09	KR	14-APR-13	MEW	AB8270SL+
MC19670-3	SW846 8011	17-APR-13 18:35	NK	15-APR-13	PA	V8011SL
MC19670-3	SW846 8260B	18-APR-13 10:47	AMY			V8260SL+
MC19670-4 Collected: 08-APR-13 13:15 By: LRMM Received: 09-APR-13 By: MW12-ROX-040813						
MC19670-4	SW846 8270C BY SIM	15-APR-13 17:06	NS	14-APR-13	MEW	B8270SIMSL
MC19670-4	SW846 8270C	15-APR-13 22:32	KR	14-APR-13	MEW	AB8270SL+
MC19670-4	SW846 8011	17-APR-13 01:15	NK	15-APR-13	PA	V8011SL
MC19670-4	SW846 8260B	18-APR-13 09:54	AMY			V8260SL+
MC19670-5 Collected: 08-APR-13 14:40 By: LRMM Received: 09-APR-13 By: MW11-ROX-040813						
MC19670-5	SW846 8270C BY SIM	15-APR-13 17:30	NS	14-APR-13	MEW	B8270SIMSL
MC19670-5	SW846 8270C	15-APR-13 22:56	KR	14-APR-13	MEW	AB8270SL+
MC19670-5	SW846 8011	17-APR-13 18:59	NK	15-APR-13	PA	V8011SL
MC19670-5	SW846 8260B	18-APR-13 11:13	AMY			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19670

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19670-6 Collected: 08-APR-13 00:00 By: LRMM Received: 09-APR-13 By: TB-ROX-040813-HCL						
MC19670-6	SW846 8260B	18-APR-13 08:34	AMY			V8260SL+
MC19670-7 Collected: 08-APR-13 00:00 By: LRMM Received: 09-APR-13 By: TB-ROX-040813-ST						
MC19670-7	SW846 8011	17-APR-13 19:22	NK	15-APR-13	PA	V8011SL

Accutest Internal Chain of Custody

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/09/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19670-1.2	Walk In Ref #22	Amirhossein Farvardin	04/14/13 09:05	Retrieve from Storage
MC19670-1.2	Amirhossein Farvardin		04/14/13 13:19	Depleted
MC19670-1.4	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-1.4	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-1.4	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrument
MC19670-1.4	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-1.5	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19670-1.5	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19670-2.2	Walk In Ref #22	Amirhossein Farvardin	04/14/13 09:05	Retrieve from Storage
MC19670-2.2	Amirhossein Farvardin		04/14/13 13:19	Depleted
MC19670-2.4	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-2.4	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-2.4	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrument
MC19670-2.4	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-2.6	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19670-2.6	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19670-3.1	Walk In Ref #22	Amirhossein Farvardin	04/14/13 09:05	Retrieve from Storage
MC19670-3.1	Amirhossein Farvardin		04/14/13 13:19	Depleted
MC19670-3.4	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-3.4	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-3.4	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrument
MC19670-3.4	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-3.6	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19670-3.6	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19670-4.3	Walk In Ref #22	Amirhossein Farvardin	04/14/13 09:05	Retrieve from Storage
MC19670-4.3	Amirhossein Farvardin		04/14/13 13:19	Depleted
MC19670-4.4	Walk In Ref #22	Amirhossein Farvardin	04/14/13 09:05	Retrieve from Storage
MC19670-4.4	Amirhossein Farvardin		04/14/13 13:19	Depleted
MC19670-4.6	Walk In Ref #22	Amirhossein Farvardin	04/14/13 09:05	Retrieve from Storage
MC19670-4.6	Amirhossein Farvardin		04/14/13 13:19	Depleted
MC19670-4.7	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-4.7	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument

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Accutest Internal Chain of Custody

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL
Received: 04/09/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19670-4.7	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrnment
MC19670-4.7	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-4.8	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-4.8	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-4.8	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrnment
MC19670-4.8	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-4.9	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-4.9	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-4.9	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrument
MC19670-4.9	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-4.10	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-4.10	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-4.10	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrument
MC19670-4.10	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-4.13	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19670-4.13	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19670-4.15	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19670-4.15	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19670-4.18	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19670-4.18	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19670-5.2	Walk In Ref #22	Amirhossein Farvardin	04/14/13 09:05	Retrieve from Storage
MC19670-5.2	Amirhossein Farvardin		04/14/13 13:19	Depleted
MC19670-5.3	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-5.3	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-5.3	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrument
MC19670-5.3	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-5.5	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage
MC19670-5.5	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to Storage
MC19670-6.1	VOC Ref #4	Amy Min Yang	04/18/13 07:21	Retrieve from Storage
MC19670-6.1	Amy Min Yang	GCMSV	04/18/13 07:21	Load on Instrument
MC19670-6.1	GCMSV	Amy Min Yang	04/20/13 10:55	Unload from Instrument
MC19670-6.1	Amy Min Yang	VOC Ref #4	04/20/13 10:55	Return to Storage
MC19670-7.2	VOC Ref #4	Thomas Abruzzise	04/15/13 14:19	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/09/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19670-7.2	Thomas Abruzzise	VOC Ref #4	04/17/13 14:05	Return to 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 Staudard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV699-MB	V17645.D	1	04/18/13	AMY	n/a	n/a	MSV699

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

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	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	
78-87-5	1,2-Dichloropropane	ND	2.0	0.72	ng/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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV699-MB	V17645.D	1	04/18/13	AMY	n/a	n/a	MSV699

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV699-MB	V17645.D	1	04/18/13	AMY	n/a	n/a	MSV699

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	70-130%
2037-26-5	Toluene-D8	104%	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	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV699-BS	V17640.D	1	04/18/13	AMY	n/a	n/a	MSV699
MSV699-BSD	V17641.D	1	04/18/13	AMY	n/a	n/a	MSV699

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	68.2	136* a	67.4	135* a	1	70-130/25
107-02-8	Acrolein	250	128	51* a	117	47* a	9	70-130/25
107-13-1	Acrylonitrile	50	59.3	119	56.7	113	4	70-130/25
71-43-2	Benzene	50	53.9	108	52.1	104	3	70-130/25
108-86-1	Bromobenzene	50	55.8	112	54.5	109	2	70-130/25
74-97-5	Bromochloromethane	50	56.3	113	55.5	111	1	70-130/25
75-27-4	Bromodichloromethane	50	54.8	110	54.3	109	1	70-130/25
75-25-2	Bromoform	50	41.5	83	42.0	84	1	70-130/25
74-83-9	Bromomethane	50	67.1	134* a	65.0	130	3	70-130/25
78-93-3	2-Butanone (MEK)	50	58.4	117	58.1	116	1	70-130/25
104-51-8	n-Butylbenzene	50	58.6	117	56.3	113	4	70-130/25
135-98-8	sec-Butylbenzene	50	54.2	108	52.4	105	3	70-130/25
98-06-6	tert-Butylbenzene	50	53.4	107	51.6	103	3	70-130/25
75-15-0	Carbon disulfide	50	53.0	106	51.0	102	4	70-130/25
56-23-5	Carbon tetrachloride	50	50.2	100	47.8	96	5	70-130/25
108-90-7	Chlorobenzene	50	52.4	105	51.0	102	3	70-130/25
75-00-3	Chloroethane	50	63.8	128	60.8	122	5	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	49.5	99	49.6	99	0	70-130/25
67-66-3	Chloroform	50	55.9	112	54.6	109	2	70-130/25
74-87-3	Chloromethane	50	64.2	128	63.0	126	2	70-130/25
95-49-8	o-Chlorotoluene	50	54.8	110	53.2	106	3	70-130/25
106-43-4	p-Chlorotoluene	50	57.0	114	55.1	110	3	70-130/25
124-48-1	Dibromochloromethane	50	46.1	92	46.2	92	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	55.3	111	54.2	108	2	70-130/25
541-73-1	1,3-Dichlorobenzene	50	54.3	109	52.5	105	3	70-130/25
106-46-7	1,4-Dichlorobenzene	50	56.3	113	54.9	110	3	70-130/25
75-71-8	Dichlorodifluoromethane	50	43.7	87	42.0	84	4	70-130/25
75-34-3	1,1-Dichloroethane	50	57.6	115	56.2	112	2	70-130/25
107-06-2	1,2-Dichloroethane	50	55.4	111	55.0	110	1	70-130/25
75-35-4	1,1-Dichloroethene	50	53.4	107	51.4	103	4	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	54.1	108	53.0	106	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	54.3	109	52.5	105	3	70-130/25
78-87-5	1,2-Dichloropropane	50	55.1	110	53.7	107	3	70-130/25
142-28-9	1,3-Dichloropropane	50	53.0	106	53.2	106	0	70-130/25
594-20-7	2,2-Dichloropropane	50	45.9	92	43.9	88	4	70-130/25
563-58-6	1,1-Dichloropropene	50	51.8	104	49.4	99	5	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV699-BS	V17640.D	1	04/18/13	AMY	n/a	n/a	MSV699
MSV699-BSD	V17641.D	1	04/18/13	AMY	n/a	n/a	MSV699

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

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	52.2	104	51.6	103	1	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	48.9	98	48.0	96	2	70-130/25
123-91-1	1,4-Dioxane	250	244	98	260	104	6	70-130/25
97-63-2	Ethyl methacrylate	50	51.8	104	52.0	104	0	77-137/25
100-41-4	Ethylbenzene	50	55.6	111	53.8	108	3	70-130/25
87-68-3	Hexachlorobutadiene	50	51.3	103	51.3	103	0	70-130/25
591-78-6	2-Hexanone	50	56.1	112	55.8	112	1	70-130/25
98-82-8	Isopropylbenzene	50	54.0	108	52.4	105	3	70-130/25
99-87-6	p-Isopropyltoluene	50	59.5	119	57.3	115	4	70-130/25
1634-04-4	Methyl Tert Bntyl Ether	50	50.5	101	50.4	101	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	50.8	102	51.0	102	0	70-130/25
74-95-3	Methylene bromide	50	55.1	110	54.8	110	1	70-130/25
75-09-2	Methylene chloride	50	56.6	113	55.3	111	2	70-130/25
91-20-3	Naphthalene	50	64.0	128	66.9	134* a	4	70-130/25
103-65-1	n-Propylbenzene	50	55.0	110	52.8	106	4	70-130/25
100-42-5	Styrene	50	54.8	110	53.8	108	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	56.5	113	55.1	110	3	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	59.8	120	61.5	123	3	70-130/25
127-18-4	Tetrachloroethene	50	49.7	99	47.2	94	5	70-130/25
108-88-3	Toluene	50	54.5	109	52.7	105	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	60.4	121	63.5	127	5	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	57.3	115	57.5	115	0	70-130/25
71-55-6	1,1,1-Trichloroethane	50	52.5	105	50.8	102	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	53.9	108	53.6	107	1	70-130/25
79-01-6	Trichloroethene	50	51.7	103	48.7	97	6	70-130/25
75-69-4	Trichlorofluoromethane	50	56.9	114	54.4	109	4	70-130/25
96-18-4	1,2,3-Trichloropropane	50	56.5	113	56.9	114	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	56.9	114	55.2	110	3	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	56.3	113	54.0	108	4	70-130/25
108-05-4	Vinyl Acetate	50	52.1	104	54.3	109	4	70-130/25
75-01-4	Vinyl chloride	50	51.6	103	50.2	100	3	70-130/25
	m,p-Xylene	100	108	108	105	105	3	70-130/25
95-47-6	o-Xylene	50	52.1	104	51.1	102	2	70-130/25
1330-20-7	Xylene (total)	150	161	107	156	104	3	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV699-BS	V17640.D	1	04/18/13	AMY	n/a	n/a	MSV699
MSV699-BSD	V17641.D	1	04/18/13	AMY	n/a	n/a	MSV699

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	108%	109%	70-130%
2037-26-5	Toluene-D8	105%	105%	70-130%
460-00-4	4-Bromofluorobenzene	95%	95%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19670-4MS	V17659.D	1	04/18/13	AMY	n/a	n/a	MSV699
MC19670-4MSD	V17660.D	1	04/18/13	AMY	n/a	n/a	MSV699
MC19670-4	V17649.D	1	04/18/13	AMY	n/a	n/a	MSV699

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

CAS No.	Compound	MC19670-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	50.6	101	49.8	100	2	70-130/30
107-02-8	Acrolein	ND		250	250	100	251	100	0	70-130/30
107-13-1	Acrylonitrile	ND		50	65.1	130	67.1	134* a	3	70-130/30
71-43-2	Benzene	0.88		50	56.3	111	58.0	114	3	70-130/30
108-86-1	Bromobenzene	ND		50	56.1	112	57.2	114	2	70-130/30
74-97-5	Bromochloromethane	ND		50	58.3	117	59.8	120	3	70-130/30
75-27-4	Bromodichloromethane	ND		50	56.0	112	58.0	116	4	70-130/30
75-25-2	Bromoform	ND		50	43.3	87	44.8	90	3	70-130/30
74-83-9	Bromomethane	ND		50	61.5	123	63.4	127	3	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	56.0	112	56.3	113	1	70-130/30
104-51-8	n-Butylbenzene	ND		50	60.9	122	63.5	127	4	70-130/30
135-98-8	sec-Butylbenzene	ND		50	55.8	112	58.0	116	4	70-130/30
98-06-6	tert-Butylbenzene	ND		50	55.9	112	57.4	115	3	70-130/30
75-15-0	Carbon disulfide	ND		50	58.1	116	60.5	121	4	70-130/30
56-23-5	Carbon tetrachloride	ND		50	53.9	108	56.1	112	4	70-130/30
108-90-7	Chlorobenzene	ND		50	53.2	106	55.4	111	4	70-130/30
75-00-3	Chloroethane	ND		50	58.7	117	60.3	121	3	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	57.7	115	59.4	119	3	70-130/30
74-87-3	Chloromethane	ND		50	58.6	117	64.4	129	9	70-130/30
95-49-8	o-Chlorotoluene	ND		50	55.4	111	57.1	114	3	70-130/30
106-43-4	p-Chlorotoluene	ND		50	57.5	115	59.6	119	4	70-130/30
124-48-1	Dibromochloromethane	ND		50	47.6	95	49.4	99	4	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	54.9	110	57.0	114	4	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	54.4	109	56.4	113	4	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	56.7	113	58.6	117	3	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	40.7	81	42.1	84	3	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	60.3	121	62.3	125	3	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	57.9	116	58.5	117	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	59.1	118	61.5	123	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	56.4	113	58.3	117	3	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	57.2	114	59.1	118	3	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	56.8	114	58.2	116	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	55.3	111	56.7	113	3	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	62.5	125	64.4	129	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	56.1	112	57.8	116	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19670-4MS	V17659.D	1	04/18/13	AMY	n/a	n/a	MSV699
MC19670-4MSD	V17660.D	1	04/18/13	AMY	n/a	n/a	MSV699
MC19670-4	V17649.D	1	04/18/13	AMY	u/a	n/a	MSV699

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

CAS No.	Compound	MC19670-4 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		50	55.0	110	56.6	113	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	52.2	104	53.6	107	3	70-130/30
123-91-1	1,4-Dioxane	ND		250	269	108	285	114	6	70-130/30
97-63-2	Ethyl methacrylate	ND		50	55.5	111	56.6	113	2	72-139/30
100-41-4	Ethylbenzene	ND		50	56.7	113	58.9	118	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	52.2	104	56.4	113	8	70-130/30
591-78-6	2-Hexanone	ND		50	55.8	112	57.0	114	2	70-130/30
98-82-8	Isopropylbenzene	ND		50	55.8	112	57.4	115	3	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	61.4	123	63.5	127	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	53.9	108	55.2	110	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	55.8	112	56.5	113	1	70-130/30
74-95-3	Methylene bromide	ND		50	57.3	115	58.3	117	2	70-130/30
75-09-2	Methylene chloride	ND		50	58.8	118	60.0	120	2	70-130/30
91-20-3	Naphthalene	ND		50	52.3	105	71.2	142* a	31* b	70-130/30
103-65-1	n-Propylbenzene	ND		50	56.5	113	58.2	116	3	70-130/30
100-42-5	Styrene	ND		50	55.8	112	57.8	116	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	56.8	114	58.8	118	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	66.4	133* a	67.8	136* a	2	70-130/30
127-18-4	Tetrachloroethene	ND		50	51.8	104	53.7	107	4	70-130/30
108-88-3	Toluene	ND		50	55.7	111	57.3	115	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	50.0	100	64.8	130	26	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	53.5	107	61.7	123	14	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	55.6	111	58.2	116	5	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	56.4	113	57.0	114	1	70-130/30
79-01-6	Trichloroethene	ND		50	50.6	101	52.8	106	4	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	52.5	105	55.0	110	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	60.9	122	61.8	124	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	57.6	115	59.5	119	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	57.5	115	59.1	118	3	70-130/30
108-05-4	Vinyl Acetate	ND		50	62.9	126	63.9	128	2	70-130/30
75-01-4	Vinyl chloride	ND		50	46.9	94	49.6	99	6	70-130/30
	m,p-Xylene	ND		100	110	110	115	115	4	70-130/30
95-47-6	o-Xylene	ND		50	53.5	107	55.2	110	3	70-130/30
1330-20-7	Xylene (total)	ND		150	164	109	170	113	4	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19670-4MS	V17659.D	1	04/18/13	AMY	n/a	n/a	MSV699
MC19670-4MSD	V17660.D	1	04/18/13	AMY	n/a	n/a	MSV699
MC19670-4	V17649.D	1	04/18/13	AMY	n/a	n/a	MSV699

The QC reported here applies to the following samples: Method: SW846 8260B

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-6

CAS No.	Surrogate Recoveries	MS	MSD	MC19670-4	Limits
1868-53-7	Dibromofluoromethane	110%	109%	106%	70-130%
2037-26-5	Toluene-D8	106%	105%	104%	70-130%
460-00-4	4-Bromofluorobenzene	95%	95%	96%	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.

6.3.1

Volatile Internal Standard Area Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV699-CC692	Injection Date:	04/18/13
Lab File ID:	V17639.D	Injection Time:	04:53
Instrument ID:	GCMSV	Method:	SW846 8260B

	IS 1 AREA	RT	1S 2 AREA	RT	1S 3 AREA	RT	1S 4 AREA	RT	IS 5 AREA	RT
Check Std	484500	6.53	742213	7.72	316720	11.06	366663	13.28	58403	3.48
Upper Limit [a]	969000	7.03	1484426	8.22	633440	11.56	733326	13.78	116806	3.98
Lower Limit [b]	242250	6.03	371107	7.22	158360	10.56	183332	12.78	29202	2.98
Lab Sample ID	IS 1 AREA	RT	1S 2 AREA	RT	1S 3 AREA	RT	1S 4 AREA	RT	1S 5 AREA	RT
MSV699-BS	479531	6.53	737041	7.72	317749	11.06	362450	13.28	79888	3.49
MSV699-BSD	485535	6.53	748303	7.72	321269	11.06	365893	13.28	82823	3.48
MSV699-MB	507038	6.53	785695	7.72	336237	11.06	367961	13.28	53447	3.48
MC19670-6	486732	6.52	750419	7.71	320527	11.06	351715	13.28	73488	3.47
ZZZZZZ	466403	6.53	727407	7.71	309405	11.06	339602	13.28	73229	3.48
MC19670-2	470962	6.53	729744	7.72	310640	11.06	341756	13.28	75882	3.48
MC19670-4	450797	6.53	707006	7.72	299885	11.06	327683	13.28	73722	3.48
MC19670-1	455641	6.53	712289	7.72	305543	11.06	337096	13.28	77295	3.49
MC19670-3	465163	6.53	717764	7.72	310127	11.06	339385	13.28	81070	3.48
MC19670-5	497268	6.53	781042	7.72	333785	11.06	366835	13.28	82903	3.48
ZZZZZZ	474118	6.53	719145	7.72	312630	11.06	342891	13.28	83345	3.48
ZZZZZZ	459276	6.53	720570	7.72	307877	11.06	337557	13.28	81077	3.48
ZZZZZZ	479125	6.53	745059	7.72	327518	11.06	368024	13.28	153005[c]	3.50
ZZZZZZ	495214	6.53	763766	7.72	331187	11.06	376088	13.28	129151[c]	3.49
ZZZZZZ	503474	6.53	775533	7.72	328693	11.07	368557	13.28	89136	3.48
ZZZZZZ	488654	6.54	758135	7.72	318380	11.07	361147	13.28	88516	3.49
MC19670-4MS	498052	6.54	767205	7.72	329413	11.07	374362	13.28	94033	3.49
MC19670-4MSD	491924	6.54	758979	7.73	323934	11.07	373148	13.28	95033	3.49
ZZZZZZ	491629	6.54	757933	7.73	323247	11.07	364981	13.28	94417	3.49
ZZZZZZ	497800	6.54	774343	7.73	324663	11.07	360780	13.28	89174	3.49
ZZZZZZ	493176	6.54	752365	7.73	317654	11.07	352697	13.28	86032	3.49

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 Surrogate Recovery Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19670-1	V17650.D	106.0	104.0	95.0
MC19670-2	V17648.D	104.0	104.0	96.0
MC19670-3	V17651.D	104.0	105.0	96.0
MC19670-4	V17649.D	106.0	104.0	96.0
MC19670-5	V17652.D	106.0	105.0	96.0
MC19670-6	V17646.D	104.0	105.0	95.0
MC19670-4MS	V17659.D	110.0	106.0	95.0
MC19670-4MSD	V17660.D	109.0	105.0	95.0
MSV699-BS	V17640.D	108.0	105.0	95.0
MSV699-BSD	V17641.D	109.0	105.0	95.0
MSV699-MB	V17645.D	104.0	104.0	95.0

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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32654-MB	W11167.D	1	04/15/13	KR	04/14/13	OP32654	MSW523

The QC reported here applies to the following samples: Method: SW846 8270C

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ng/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcobol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32654-MB	W11167.D	1	04/15/13	KR	04/14/13	OP32654	MSW523

The QC reported here applies to the following samples: Method: SW846 8270C

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	15-110%
4165-62-2	Phenol-d5	34%	15-110%
118-79-6	2,4,6-Tribromophenol	83%	15-110%
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	77%	30-130%
1718-51-0	Terphenyl-d14	103%	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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32655-MB	I82595.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

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	ng/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	ng/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	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	70%	30-130%
321-60-8	2-Fluorobiphenyl	68%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

Blank Spike Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32654-BS	W11168.D	1	04/15/13	KR	04/14/13	OP32654	MSW523

The QC reported here applies to the following samples: Method: SW846 8270C

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	48.1	48	30-130
95-57-8	2-Chlorophenol	100	96.7	97	30-130
59-50-7	4-Chloro-3-methyl phenol	100	100	100	30-130
120-83-2	2,4-Dichlorophenol	100	109	109	30-130
105-67-9	2,4-Dimethylphenol	100	95.0	95	30-130
51-28-5	2,4-Dinitrophenol	100	108	108	30-130
534-52-1	4,6-Dinitro-o-cresol	100	116	116	30-130
95-48-7	2-Methylphenol	100	83.8	84	30-130
	3&4-Methylphenol	200	159	80	30-130
88-75-5	2-Nitrophenol	100	110	110	30-130
100-02-7	4-Nitrophenol	100	64.2	64	30-130
87-86-5	Pentachlorophenol	100	129	129	30-130
108-95-2	Phenol	100	42.2	42	30-130
95-95-4	2,4,5-Trichlorophenol	100	113	113	30-130
88-06-2	2,4,6-Trichlorophenol	100	119	119	30-130
62-53-3	Aniline	50	20.4	41	40-140
101-55-3	4-Bromophenyl phenyl ether	50	44.1	88	40-140
85-68-7	Butyl benzyl phthalate	50	49.1	98	40-140
100-51-6	Benzyl Alcohol	50	31.2	62	40-140
91-58-7	2-Chloronaphthalene	50	42.5	85	40-140
106-47-8	4-Chloroaniline	50	33.0	66	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	41.7	83	40-140
111-44-4	bis(2-Chloroethyl)ether	50	44.8	90	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	44.7	89	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	43.7	87	40-140
122-66-7	1,2-Diphenylhydrazine	50	48.2	96	40-140
121-14-2	2,4-Dinitrotoluene	50	45.8	92	40-140
606-20-2	2,6-Dinitrotoluene	50	43.9	88	40-140
91-94-1	3,3'-Dichlorobenzidine	50	6.1	12* a	40-140
132-64-9	Dibenzofuran	50	42.5	85	40-140
84-74-2	Di-n-butyl phthalate	50	44.7	89	40-140
117-84-0	Di-n-octyl phthalate	50	53.8	108	40-140
84-66-2	Diethyl phthalate	50	41.6	83	40-140
131-11-3	Dimethyl phthalate	50	33.6	67	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	49.3	99	40-140
118-74-1	Hexachlorobenzene	50	44.4	89	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32654-BS	W11168.D	1	04/15/13	KR	04/14/13	OP32654	MSW523

The QC reported here applies to the following samples: Method: SW846 8270C

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	19.3	39* a	40-140
67-72-1	Hexachloroethane	50	33.5	67	40-140
78-59-1	Isophorone	50	44.6	89	40-140
88-74-4	2-Nitroaniline	50	44.7	89	40-140
99-09-2	3-Nitroaniline	50	35.0	70	40-140
100-01-6	4-Nitroaniline	50	40.2	80	40-140
98-95-3	Nitrobenzene	50	41.5	83	40-140
62-75-9	n-Nitrosodimethylamine	50	25.6	51	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	41.7	83	40-140
86-30-6	N-Nitrosodiphenylamine	50	46.0	92	40-140
110-86-1	Pyridine	50	19.4	39* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Flnorophenol	51%	15-110%
4165-62-2	Phenol-d5	35%	15-110%
118-79-6	2,4,6-Tribromophenol	88%	15-110%
4165-60-0	Nitrobenzene-d5	86%	30-130%
321-60-8	2-Fluorobiphenyl	89%	30-130%
1718-51-0	Terphenyl-d14	106%	30-130%

(a) Outside control limits. Blank Spike meets program technical reqoirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32655-BS	I82596.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.3	79	40-140
208-96-8	Acenaphthylene	50	31.3	63	40-140
120-12-7	Anthracene	50	41.5	83	40-140
56-55-3	Benzo(a)anthracene	50	42.7	85	40-140
50-32-8	Benzo(a)pyrene	50	37.6	75	40-140
205-99-2	Benzo(b)fluoranthene	50	40.7	81	40-140
191-24-2	Benzo(g,h,i)perylene	50	45.8	92	40-140
207-08-9	Benzo(k)fluoranthene	50	41.5	83	40-140
218-01-9	Chrysene	50	40.7	81	40-140
53-70-3	Dibenzo(a,h)anthracene	50	40.7	81	40-140
206-44-0	Fluoranthene	50	42.9	86	40-140
86-73-7	Fluorene	50	37.3	75	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	40.0	80	40-140
90-12-0	1-Methylnaphthalene	50	37.9	76	40-140
91-57-6	2-Methylnaphthalene	50	36.6	73	40-140
85-01-8	Phenanthrene	50	41.6	83	40-140
129-00-0	Pyrene	50	42.7	85	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	77%	30-130%
321-60-8	2-Fluorobiphenyl	73%	30-130%
1718-51-0	Terphenyl-d14	84%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32654-MS	W11177.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
OP32654-MSD	W11178.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
MC19670-4	W11182.D	1	04/15/13	KR	04/14/13	OP32654	MSW523

The QC reported here applies to the following samples: Method: SW846 8270C

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

CAS No.	Compound	MC19670-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		104	48.7	47	55.2	53	13	30-130/20
95-57-8	2-Chlorophenol	ND		104	95.2	91	89.6	86	6	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		104	99.3	95	94.8	91	5	30-130/20
120-83-2	2,4-Dichlorophenol	ND		104	108	104	103	99	5	30-130/20
105-67-9	2,4-Dimethylphenol	ND		104	81.8	79	77.5	74	5	30-130/20
51-28-5	2,4-Dinitrophenol	ND		104	118	113	130	125	10	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		104	118	113	125	120	6	30-130/20
95-48-7	2-Methylphenol	ND		104	82.2	79	74.3	71	10	30-130/20
	3&4-Methylphenol	ND		208	154	74	139	67	10	30-130/20
88-75-5	2-Nitrophenol	ND		104	118	113	120	115	2	30-130/20
100-02-7	4-Nitrophenol	ND		104	68.2	65	70.0	67	3	30-130/20
87-86-5	Pentachlorophenol	ND		104	126	121	126	121	0	30-130/20
108-95-2	Phenol	ND		104	41.7	40	38.6	37	8	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		104	121	116	111	107	9	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		104	120	115	116	111	3	30-130/20
62-53-3	Aniline	ND		52.1	17.5	34* a	15.0	29* a	15	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		52.1	40.0	77	44.1	85	10	40-140/20
85-68-7	Butyl benzyl phthalate	ND		52.1	44.5	85	50.9	98	13	40-140/20
100-51-6	Benzyl Alcohol	ND		52.1	30.8	59	33.7	65	9	40-140/20
91-58-7	2-Chloronaphthalene	ND		52.1	42.4	81	44.3	85	4	40-140/20
106-47-8	4-Chloroaniline	ND		52.1	30.7	59	28.1	54	9	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		52.1	42.7	82	44.6	86	4	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		52.1	44.7	86	44.9	86	0	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		52.1	45.5	87	47.9	92	5	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		52.1	40.4	78	44.9	86	11	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		52.1	45.3	87	48.4	93	7	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		52.1	45.3	87	48.9	94	8	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		52.1	43.8	84	46.4	89	6	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		52.1	2.9	6* a	2.2	4* a	27* b	40-140/20
132-64-9	Dibenzofuran	ND		52.1	40.6	78	43.8	84	8	40-140/20
84-74-2	Di-n-butyl phthalate	ND		52.1	41.0	79	45.2	87	10	40-140/20
117-84-0	Di-n-octyl phthalate	ND		52.1	42.0	81	50.8	98	19	40-140/20
84-66-2	Diethyl phthalate	ND		52.1	43.5	84	46.5	89	7	40-140/20
131-11-3	Dimethyl phthalate	ND		52.1	42.7	82	45.5	87	6	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		52.1	38.9	75	47.5	91	20	40-140/20
118-74-1	Hexachlorobenzene	ND		52.1	37.2	71	42.5	82	13	40-140/20

* = Outside of Control Limits.

7.3.1

7

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32654-MS	W11177.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
OP32654-MSD	W11178.D	1	04/15/13	KR	04/14/13	OP32654	MSW523
MC19670-4	W11182.D	1	04/15/13	KR	04/14/13	OP32654	MSW523

The QC reported here applies to the following samples: Method: SW846 8270C

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

CAS No.	Compound	MC19670-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		52.1	21.1	41	23.6	45	11	40-140/20
67-72-1	Hexachloroethane	ND		52.1	35.6	68	37.7	72	6	40-140/20
78-59-1	Isophorone	ND		52.1	46.1	89	48.1	92	4	40-140/20
88-74-4	2-Nitroaniline	ND		52.1	45.3	87	48.3	93	6	40-140/20
99-09-2	3-Nitroaniline	ND		52.1	35.9	69	36.6	70	2	40-140/20
100-01-6	4-Nitroaniline	ND		52.1	41.7	80	44.0	84	5	40-140/20
98-95-3	Nitrobenzene	ND		52.1	42.6	82	43.6	84	2	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		52.1	27.2	52	28.0	54	3	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		52.1	42.8	82	44.6	86	4	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		52.1	43.8	84	47.1	90	7	40-140/20
110-86-1	Pyridine	ND		52.1	19.5	37* [a]	20.8	40	6	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19670-4	Limits
367-12-4	2-Fluorophenol	44%	41%	27%	15-110%
4165-62-2	Phenol-d5	32%	29%	19%	15-110%
118-79-6	2,4,6-Tribromophenol	78%	79%	73%	15-110%
4165-60-0	Nitrobenzene-d5	83%	87%	87%	30-130%
321-60-8	2-Flnorobiphenyl	85%	90%	86%	30-130%
1718-51-0	Terphenyl-d14	81%	98%	98%	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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32655-MS	I82597.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071
OP32655-MSD	I82598.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071
MC19670-4	I82602.D	1	04/15/13	NS	04/14/13	OP32655	MSI3071

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5

CAS No.	Compound	MC19670-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		52.1	38.3	74	40.7	78	6	40-140/20
208-96-8	Acenaphthylene	ND		52.1	30.6	59	32.5	62	6	40-140/20
120-12-7	Anthracene	ND		52.1	38.2	73	42.3	81	10	40-140/20
56-55-3	Benzo(a)anthracene	ND		52.1	35.8	69	41.1	79	14	40-140/20
50-32-8	Benzo(a)pyrene	ND		52.1	30.4	58	34.5	66	13	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		52.1	32.6	63	39.2	75	18	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		52.1	37.6	72	43.7	84	15	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		52.1	36.2	70	39.9	77	10	40-140/20
218-01-9	Chrysene	ND		52.1	34.1	65	39.0	75	13	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		52.1	33.2	64	39.0	75	16	40-140/20
206-44-0	Fluoranthene	0.044	J	52.1	37.9	73	42.5	82	11	40-140/20
86-73-7	Fluorene	ND		52.1	35.3	68	38.2	73	8	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		52.1	32.9	63	38.3	74	15	40-140/20
90-12-0	1-Methylnaphthalene	ND		52.1	37.6	72	39.7	76	5	40-140/20
91-57-6	2-Methylnaphthalene	ND		52.1	36.3	70	37.9	73	4	40-140/20
85-01-8	Pheuanthrene	ND		52.1	38.3	74	42.1	81	9	40-140/20
129-00-0	Pyrene	ND		52.1	37.2	71	42.2	81	13	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19670-4	Limits
4165-60-0	Nitrobenzene-d5	74%	77%	74%	30-130%
321-60-8	2-Fluorobiphenyl	68%	72%	74%	30-130%
1718-51-0	Terphenyl-d14	67%	76%	77%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3071-CC3044	Injection Date:	04/15/13
Lab File ID:	I82582.D	Injection Time:	09:21
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	219306	3.41	536567	4.37	278485	5.76	513216	7.01	390738	9.74	750313	11.12
Upper Limit [a]	438612	3.91	1073134	4.87	556970	6.26	1026432	7.51	781476	10.24	1500626	11.62
Lower Limit [b]	109653	2.91	268284	3.87	139243	5.26	256608	6.51	195369	9.24	375157	10.62
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
OP32621-MB	228235	3.40	565908	4.37	286714	5.76	508707	7.00	402055	9.73	782748	11.12
OP32621-BS	226194	3.41	560956	4.37	281333	5.76	499240	7.01	381746	9.73	742997	11.13
ZZZZZZ	233763	3.40	589960	4.37	294830	5.76	511034	7.00	404231	9.73	791849	11.13
ZZZZZZ	235812	3.40	586002	4.37	295854	5.76	517666	7.00	406502	9.73	798322	11.12
ZZZZZZ	242586	3.40	604710	4.37	300191	5.76	520318	7.00	405048	9.73	814346	11.12
ZZZZZZ	243088	3.40	611708	4.37	306727	5.76	537288	7.00	422204	9.73	832467	11.12
ZZZZZZ	225499	3.40	562415	4.37	280917	5.76	495755	7.00	386253	9.73	758354	11.12
ZZZZZZ	245006	3.40	606765	4.37	305510	5.76	522112	7.00	409892	9.73	804198	11.13
ZZZZZZ	229950	3.40	575106	4.37	293290	5.76	510381	7.00	407670	9.73	798410	11.13
ZZZZZZ	227873	3.40	569273	4.37	285878	5.76	494146	7.00	386450	9.73	756896	11.12
ZZZZZZ	229133	3.40	567636	4.37	283328	5.76	490594	7.00	388463	9.73	753426	11.12
ZZZZZZ	228767	3.40	562925	4.37	281795	5.76	497552	7.00	379997	9.73	737761	11.12
OP32655-MB	172772	3.40	439804	4.37	221533	5.76	386264	7.00	305722	9.73	595477	11.12
OP32655-BS	160841	3.41	397274	4.37	202429	5.76	361950	7.01	278147	9.73	543165	11.12
OP32655-MS	170549	3.41	427358	4.37	215129	5.76	376068	7.01	291900	9.73	566194	11.12
OP32655-MSD	162292	3.41	405042	4.37	204545	5.76	362602	7.01	276161	9.73	536878	11.12
MC19670-1	157338	3.40	404222	4.37	202397	5.76	350759	7.00	280120	9.73	549042	11.12
MC19670-2	145611	3.40	361871	4.37	185700	5.76	322140	7.00	254782	9.73	498603	11.12
MC19670-3	172509	3.40	433951	4.37	217183	5.76	380982	7.00	298673	9.73	590929	11.12
MC19670-4	153215	3.40	397958	4.37	201152	5.76	350503	7.00	276790	9.73	549289	11.12
MC19670-5	150428	3.40	390355	4.37	195973	5.76	343015	7.00	272844	9.73	538598	11.12
ZZZZZZ	150049	3.40	387114	4.37	192887	5.76	337867	7.00	270713	9.73	530854	11.12
ZZZZZZ	147758	3.40	379433	4.37	190357	5.76	323813	7.00	258489	9.73	510622	11.12
ZZZZZZ	165880	3.40	422493	4.37	217206	5.76	371174	7.00	290350	9.73	569375	11.12
ZZZZZZ	152296	3.40	391316	4.37	198204	5.76	340676	7.00	275572	9.73	544561	11.12
ZZZZZZ	159794	3.40	411585	4.37	207135	5.76	354985	7.00	285179	9.73	565057	11.12

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.

Semivolatile Internal Standard Area Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3071-CC3044	Injection Date:	04/15/13
Lab File ID:	I82582.D	Injection Time:	09:21
Instrument ID:	GCMSI	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

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minntes.

Semivolatile Internal Standard Area Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW523-CC505	Injection Date:	04/15/13
Lab File ID:	W11166.D	Injection Time:	16:15
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	118784	3.62	451007	4.60	299286	6.03	523189	7.31	645553	10.18	590307	11.75
Upper Limit [a]	237568	4.12	902014	5.10	598572	6.53	1046378	7.81	1291106	10.68	1180614	12.25
Lower Limit [b]	59392	3.12	225504	4.10	149643	5.53	261595	6.81	322777	9.68	295154	11.25
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
OP32654-MB	104414	3.62	396466	4.60	259745	6.03	465757	7.31	554568	10.17	545783	11.74
OP32654-BS	92935	3.62	353214	4.60	226599	6.03	394639	7.31	472228	10.17	454373	11.74
OP32628-MB	128518	3.62	480015	4.60	314822	6.03	563583	7.31	695640	10.17	657390	11.74
OP32628-BS	123016	3.62	460480	4.60	300999	6.03	521876	7.31	633337	10.17	591745	11.74
OP32628-MS	126521	3.62	476807	4.60	316464	6.03	553361	7.31	680103	10.17	663742	11.74
OP32628-MSD	123855	3.62	466987	4.60	303362	6.03	536452	7.31	619513	10.17	591237	11.74
MC19468-1	124309	3.62	476218	4.60	308375	6.03	571274	7.31	685581	10.17	673346	11.74
ZZZZZZ	124754	3.62	475969	4.60	304483	6.03	552025	7.31	652244	10.17	637795	11.74
ZZZZZZ	129770	3.62	493309	4.60	322674	6.03	589656	7.31	705926	10.17	687456	11.74
ZZZZZZ	116846	3.62	448240	4.60	293562	6.03	528896	7.31	627716	10.16	618367	11.74
OP32654-MS	103808	3.62	392524	4.60	253353	6.03	449177	7.31	547335	10.17	527968	11.74
OP32654-MSD	96156	3.62	363535	4.60	237958	6.03	423723	7.31	508901	10.17	491412	11.74
MC19670-1	88418	3.62	340690	4.60	220466	6.03	398176	7.30	478087	10.16	473907	11.74
MC19670-2	79271	3.62	299123	4.60	196366	6.03	358479	7.30	424754	10.16	415759	11.74
MC19670-3	102662	3.62	389880	4.60	256041	6.03	463098	7.31	550701	10.16	541800	11.74
MC19670-4	86057	3.62	323569	4.60	211897	6.03	379050	7.30	448420	10.16	446787	11.74
MC19670-5	87385	3.62	339526	4.60	220138	6.03	398211	7.30	480217	10.16	473800	11.74
ZZZZZZ	94234	3.62	352891	4.60	229135	6.03	407245	7.30	486281	10.16	473514	11.74
ZZZZZZ	90475	3.62	343637	4.60	220406	6.03	397252	7.30	476908	10.16	463211	11.74
ZZZZZZ	96199	3.62	363273	4.60	236174	6.03	427052	7.30	512710	10.16	506618	11.74
ZZZZZZ	91959	3.62	344653	4.60	225022	6.03	405879	7.30	477485	10.16	471609	11.74
ZZZZZZ	95983	3.62	363142	4.60	235048	6.03	429878	7.30	508721	10.16	491549	11.74
ZZZZZZ	130161	3.62	491136	4.60	333612	6.03	625068	7.31	734583	10.17	694342	11.74
ZZZZZZ	139686	3.62	522856	4.60	349616	6.03	625895	7.31	699115	10.17	658953	11.74
ZZZZZZ	147726	3.62	568262	4.60	398818	6.04	698411	7.32	851608	10.19	858934	11.77
ZZZZZZ	124870	3.62	481896	4.60	315749	6.03	571435	7.31	692612	10.17	689565	11.74
MC19597-11	105207	3.62	402493	4.60	261485	6.03	470391	7.31	566141	10.17	566744	11.74

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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW523-CC505	Injection Date:	04/15/13
Lab File ID:	W11166.D	Injection Time:	16:15
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.

7.4.2

7

Semivolatile Surrogate Recovery Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19670-1	W11179.D	50.0	41.0	86.0	85.0	85.0	101.0
MC19670-2	W11180.D	48.0	33.0	81.0	82.0	81.0	106.0
MC19670-3	W11181.D	30.0	23.0	70.0	82.0	82.0	101.0
MC19670-4	W11182.D	27.0	19.0	73.0	87.0	86.0	98.0
MC19670-5	W11183.D	45.0	34.0	85.0	85.0	86.0	107.0
OP32654-BS	W11168.D	51.0	35.0	88.0	86.0	89.0	106.0
OP32654-MB	W11167.D	49.0	34.0	83.0	80.0	77.0	103.0
OP32654-MS	W11177.D	44.0	32.0	78.0	83.0	85.0	81.0
OP32654-MSD	W11178.D	41.0	29.0	79.0	87.0	90.0	98.0

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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19670-1	I82599.D	75.0	71.0	80.0
MC19670-2	I82600.D	73.0	69.0	83.0
MC19670-3	I82601.D	72.0	71.0	78.0
MC19670-4	I82602.D	74.0	74.0	77.0
MC19670-5	I82603.D	74.0	74.0	85.0
OP32655-BS	I82596.D	77.0	73.0	84.0
OP32655-MB	I82595.D	70.0	68.0	80.0
OP32655-MS	I82597.D	74.0	68.0	67.0
OP32655-MSD	I82598.D	77.0	72.0	76.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = 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
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries

Method Blank Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-MB	BK23581.D	1	04/16/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-7

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)	109%	36-173%
460-00-4	Bromofluorobenzene (S)	113%	36-173%

Blank Spike Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-BS	BK23582.D	1	04/16/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.076	107	60-140
106-93-4	1,2-Dibromoethane	0.071	0.092	130	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	108%	36-173%
460-00-4	Bromofluorobenzene (S)	112%	36-173%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32677-MS	BK23583.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
OP32677-MSD	BK23584.D	1	04/17/13	NK	04/15/13	OP32677	GBK829
MC19670-4	BK23585.D	1	04/17/13	NK	04/15/13	OP32677	GBK829

The QC reported here applies to the following samples: Method: SW846 8011

MC19670-1, MC19670-2, MC19670-3, MC19670-4, MC19670-5, MC19670-7

CAS No.	Compound	MC19670-4 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		0.0694	0.078	112	0.080	116	3	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0694	0.086	124	0.091	132	6	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19670-4	Limits
460-00-4	Bromofluorobeuzene (S)	117%	122%	108%	36-173%
460-00-4	Bromofluorobenzene (S)	121%	125%	114%	36-173%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19670-1	BK23621.D	106.0	106.0
MC19670-2	BK23623.D	117.0	116.0
MC19670-3	BK23624.D	114.0	111.0
MC19670-4	BK23585.D	108.0	114.0
MC19670-5	BK23625.D	104.0	106.0
MC19670-7	BK23626.D	132.0	129.0
OP32677-BS	BK23582.D	108.0	112.0
OP32677-MB	BK23581.D	109.0	113.0
OP32677-MS	BK23583.D	117.0	121.0
OP32677-MSD	BK23584.D	122.0	125.0

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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK829-ICC829	Injection Date:	04/16/13
Lab File ID:	BK23576.D	Injection Time:	21:25
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.44	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP32677-MB	BK23581.D	04/16/13	23:29	4.45	4.88
OP32677-BS	BK23582.D	04/16/13	23:56	4.45	4.88
OP32677-MS	BK23583.D	04/17/13	00:22	4.45	4.88
OP32677-MSD	BK23584.D	04/17/13	00:48	4.45	4.88
MC19670-4	BK23585.D	04/17/13	01:15	4.45	4.88
ZZZZZZ	BK23586.D	04/17/13	01:42	4.45	4.88
ZZZZZZ	BK23587.D	04/17/13	02:09	4.45	4.88
ZZZZZZ	BK23588.D	04/17/13	02:35	4.45	4.88
ZZZZZZ	BK23589.D	04/17/13	03:01	4.45	4.88
ZZZZZZ	BK23590.D	04/17/13	03:28	4.45	4.88

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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK830-ICC830	Injection Date:	04/17/13
Lab File ID:	BK23607.D	Injection Time:	11:07
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	SI [b] RT
ZZZZZZ	BK23610A.D	04/17/13	12:18	4.45	4.88
ZZZZZZ	BK23617.D	04/17/13	15:53	4.45	4.88
ZZZZZZ	BK23618.D	04/17/13	16:16	4.45	4.88
ZZZZZZ	BK23619.D	04/17/13	16:39	4.45	4.88
ZZZZZZ	BK23620.D	04/17/13	17:02	4.45	4.88
MC19670-1	BK23621.D	04/17/13	17:26	4.45	4.88

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: MC19670
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK830-CC830	Injection Date:	04/17/13
Lab File ID:	BK23622.D	Injection Time:	17:49
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC19670-2	BK23623.D	04/17/13	18:12	4.45	4.88
MC19670-3	BK23624.D	04/17/13	18:35	4.45	4.88
MC19670-5	BK23625.D	04/17/13	18:59	4.45	4.88
MC19670-7	BK23626.D	04/17/13	19:22	4.45	4.88
OP32690-MB	BK23627.D	04/17/13	19:46	4.45	4.88
MC19800-8	BK23631.D	04/17/13	21:20	4.45	4.88
ZZZZZZ	BK23632.D	04/17/13	21:45	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.3

8

Roxana Groundwater Quarterly – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19699

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/14/2013

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

Sample Identification	Sample Identification
MW10-ROX-040913	MW10-ROX-040913-EB
MW9-ROX-040913	MW1-ROX-040913
TB-ROX-040913-HCL	TB-ROX-040913-ST
MW2-ROX-040913	MW5-ROX-040913
MW4-ROX-040913	MW4-ROX-040913-Dup
TB-ROX-040913-HCL-A	TB-ROX-040913-ST-A

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 SVOC surrogate 2-fluorophenol was outside evaluation criteria in sample MW9-ROX-040913. VOC MS/MSD recoveries were outside evaluation criteria in sample MW1-ROX-040913. Although not indicated in the laboratory case narrative, SVOCs were detected in the equipment blank. Sample MW2-ROX-040913 and field duplicate pair samples MW4-ROX-040913/MW4-ROX-040913-Dup were diluted due to high levels of VOC target analytes. Additionally, the initial calibration verification for acrolein exceeded 50 percent difference (%D). These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated two of two coolers were received by the laboratory at temperatures of 0.3ºC and 0.2ºC 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
MW10-ROX-040913-EB	SVOCs	Di-n-butyl phthalate	2.1 ug/L
MW10-ROX-040913-EB	SVOCs	Diethyl phthalate	2.0 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 required qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW10-ROX-040913	SVOCs	Di-n-butyl phthalate	-	**U**
MW10-ROX-040913	SVOCs	Diethyl phthalate	-	**U**
MW9-ROX-040913	SVOCs	Di-n-butyl phthalate	-	**U**
MW9-ROX-040913	SVOCs	Diethyl phthalate	-	**U**
MW1-ROX-040913	SVOCs	Di-n-butyl phthalate	-	**U**
MW1-ROX-040913	SVOCs	Diethyl phthalate	-	**U**
MW4-ROX-040913-Dup	SVOCs	Di-n-butyl phthalate	-	**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
MSH2001-BS	VOCs	Acetone	**184**	NA	70-130
MSH2001-BS	VOCs	Acrolein	**60**	NA	70-130
MSH2001-BS	VOCs	2-Butanone (MEK)	**136**	NA	70-130
MSH2001-BS	VOCs	Dichlorodifluoromethane	**136**	NA	70-130
MSH2001-BS	VOCs	2-Hexanone	**152**	NA	70-130
MSH2005-BS	VOCs	Acetone	**158**	NA	70-130
MSH2005-BS	VOCs	Acrolein	**48**	NA	70-130
MSH2005-BS	VOCs	Acrylonitrile	**62**	NA	70-130
MSH2005-BS	VOCs	Carbon tetrachloride	**134**	NA	70-130
MSH2005-BS	VOCs	2-Chloroethyl vinyl ether	**68**	NA	70-130
MSH2005-BS	VOCs	1,1,1,2-Tetrachloroethane	**135**	NA	70-130
OP32661-BS	SVOCs	2,4-Dinitrophenol	**149**	NA	30-130
OP32661-BS	SVOCs	4,6-Dinitro-o-cresol	**136**	NA	30-130
OP32661-BS	SVOCs	3,3'-Dichlorobenzidine	**11**	NA	40-140
OP32661-BS	SVOCs	Dimethyl phthalate	**30**	NA	40-140
OP32678-BS	SVOCs	Aniline	**36**	NA	40-140
OP32678-BS	SVOCs	3,3'-Dichlorobenzidine	**9**	NA	40-140
OP32678-BS	SVOCs	Diethyl phthalate	**39**	NA	40-140
OP32678-BS	SVOCs	Dimethyl phthalate	**8**	NA	40-140
OP32678-BS	SVOCs	Hexachlorocyclopentadiene	**26**	NA	40-140

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
OP32678-BS	SVOCs	Pyridine	**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 MSH2001-BS and OP32661-BS were associated with equipment blank and trip blank quality control samples and are not qualified.

Sample ID	Parameter	Analyte	Qualification
MW10-ROX-040913	VOCs	Acrolein	**UJ**
MW9-ROX-040913	VOCs	Acrolein	**UJ**
MW1-ROX-040913	VOCs	Acrolein	**UJ**
MW5-ROX-040913	VOCs	Acrolein	**UJ**
MW4-ROX-040913	VOCs	Acrolein	**UJ**
MW4-ROX-040913-Dup	VOCs	Acrolein	**UJ**
MW2-ROX-040913	VOCs	Acrolein	**UJ**
MW2-ROX-040913	VOCs	Acrylonitrile	**UJ**
MW4-ROX-040913-Dup	VOCs	Acrylonitrile	**UJ**
MW10-ROX-040913	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW10-ROX-040913	SVOCs	Dimethyl phthalate	**UJ**
MW9-ROX-040913	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW9-ROX-040913	SVOCs	Dimethyl phthalate	**UJ**
MW1-ROX-040913	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW1-ROX-040913	SVOCs	Dimethyl phthalate	**UJ**
MW2-ROX-040913	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW2-ROX-040913	SVOCs	Dimethyl phthalate	**UJ**
MW5-ROX-040913	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW5-ROX-040913	SVOCs	Dimethyl phthalate	**UJ**
MW4-ROX-040913	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW4-ROX-040913	SVOCs	Dimethyl phthalate	**UJ**
MW4-ROX-040913-Dup	SVOCs	Aniline	**UJ**
MW4-ROX-040913-Dup	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW4-ROX-040913-Dup	SVOCs	Diethyl phthalate	**UJ**
MW4-ROX-040913-Dup	SVOCs	Dimethyl phthalate	**UJ**
MW4-ROX-040913-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW4-ROX-040913-Dup	SVOCs	Pyridine	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW9-ROX-040913 Run#1	SVOCs	2-Fluorophenol	**14**	15-110
MW9-ROX-040913 Run#2	SVOCs	2-Fluorophenol	**14**	15-110

Analytical data that required qualification based on surrogate data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
MW9-ROX-040913	SVOCs	SVOC non-detects	**UJ**
MW9-ROX-040913	SVOCs	Di-n-butyl phthalate	**UJ**
MW9-ROX-040913	SVOCs	Diethyl phthalate	**UJ**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, although not requested, sample MW1-ROX-040913 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
MW1-ROX-040913	VOCs	Acrolein	**43/44**	2	70-130/30
MW1-ROX-040913	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	70-130/30

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?

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
MW4-ROX-040913	MW4-ROX-040913-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?

No, although the initial calibration verification for acrolein exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of data was required.

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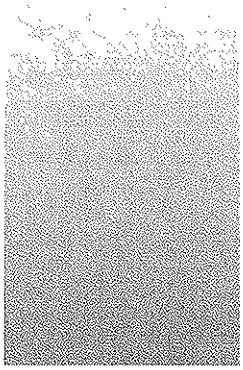
05/02/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19699

Sampling Date: 04/09/13

Report to:

URS Corporation

elizabeth.kunkel@URS.com

ATTN: Elizabeth Kunkel

Reviewed on 5/14/2013

Total number of pages in report: **146**

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)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8

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Sample Summary

Shell Oil

Job No: MC19699

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19699-1	04/09/13	08:50	LRMM	04/10/13	AQ	Ground Water	MW10-ROX-040913
MC19699-2	04/09/13	09:10	LRMM	04/10/13	AQ	Equipment Blank	MW10-ROX-040913-EB
MC19699-3	04/09/13	10:00	LRMM	04/10/13	AQ	Ground Water	MW9-ROX-040913
MC19699-4	04/09/13	10:50	LRMM	04/10/13	AQ	Ground Water	MW1-ROX-040913
MC19699-5	04/09/13	00:00	LRMM	04/10/13	AQ	Trip Blank Water	TB-ROX-040913-HCL
MC19699-6	04/09/13	00:00	LRMM	04/10/13	AQ	Trip Blank Water	TB-ROX-040913-ST
MC19699-7	04/09/13	12:40	LRMM	04/10/13	AQ	Ground Water	MW2-ROX-040913
MC19699-8	04/09/13	13:25	LRMM	04/10/13	AQ	Ground Water	MW5-ROX-040913
MC19699-9	04/09/13	14:35	LRMM	04/10/13	AQ	Ground Water	MW4-ROX-040913
MC19699-10	04/09/13	14:35	LRMM	04/10/13	AQ	Ground Water	MW4-ROX-040913-DUP
MC19699-11	04/09/13	00:00	LRMM	04/10/13	AQ	Trip Blank Water	TB-ROX-040913-HCL-A
MC19699-12	04/09/13	00:00	LRMM	04/10/13	AQ	Trip Blank Water	TB-ROX-040913-ST-A

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19699
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Centra	**Report Date**	5/1/2013 3:05:57 PM

8 Sample(s) and 4 Trip Blank(s) were collected on 04/09/2013 and were received at Accutest on 04/10/2013 properly preserved, at 0.2 Deg. C and intact. These Samples received an Accutest job number of MC19699. 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:** MSH2001

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19699-4MS, MC19699-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Butanone (MEK), 2-Hexanone, Acrolein, Dichlorodifluoromethane are outside control limits. Blank Spike meets program technical requirements. 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 interferenee. Refer to Blank Spike.
- RPD(s) for MSD for 2-Chloroethyl vinyl ether are outside control limits for sample MC19699-4MSD. High RPD dne to possible matrix interference and/or sample non-homogeneity.
- MSH2001-BS for Acetone: Ontside control limits. Associated samples are non-deteet for this compound.
- Initial calibration verification MSH1993-ICV1993 for acrolein exceeds 50% Differenee. Acrolein is within criteria in continuing calibration check standard MSH2001-CC1993 and MSH2005-CC1993.

Matrix: AQ **Batch ID:** MSH2003

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19724-5MS, MC19724-5MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** MSH2005

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19922-1MS, MC19922-1MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acetone, Acrolein, Acrylonitrile, Carbon tetrachloride are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein, Acrylonitrile 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, Acrolein, Acrylonitrile, Carbon disulfide 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: OP32661

- 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) MC19724-5MS, MC19724-5MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 3,3'-Dichlorobenzidine, Dimethyl phthalate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 3,3'-Dichlorobenzidine, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 3,3'-Dichlorobenzidine, Aniline, Hexachlorocyclopentadiene, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for Phenol are outside control limits for sample OP32661-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MC19699-3: Confirmation run for surrogate recoveries.
- OP32661-BS/MS/MSD for 4,6-Dinitro-o-cresol, 2,4-Dinitrophenol: Outside control limits. Associated samples are non-detect for this compound.
- MC19699-3 for 2-Fluorophenol: Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix: AQ	Batch ID: OP32678

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19700-23MS, MC19700-23MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- OP32678-BS/MS/MSD Recovery(s) for 3,3'-Dichlorobenzidine, Aniline, Diethyl phthalate, Dimethyl phthalate, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for Butyl benzyl phthalate are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for Butyl benzyl phthalate, n-Nitrosodimethylamine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for Dimethyl phthalate are outside control limits for sample OP32678-MSD. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ	Batch ID: OP32662

- 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) MC19724-5MS, MC19724-5MSD were used as the QC samples indicated.
- MC19699-3: Confirmation run for surrogate recoveries.
- MC19699-3 for 2-Fluorophenol: Ontside control limits due to possible matrix interference. Confirmed by reanalysis.

Matrix: AQ	Batch ID: OP32679

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19700-24MS, MC19700-24MSD 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: OP32690

- All method blanks for this batch meet method specific criteria.

  Sample(s) MC19800-8MS, MC19800-8MSD were used as the QC samples indicated.

- OP32690-MS for Bromofluorobenzene (S): Outside control limits due to possible matrix interference.

  All samples were analyzed 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(MC19699).

Summary of Hits

Job Number: MC19699
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/09/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19699-1	MW10-ROX-040913					
Benzene		0.67	0.50	0.24	ug/l	SW846 8260B
Di-n-butyl phthalate		1.9 J	5.4	0.42	ug/l	SW846 8270C
Diethyl phthalate		1.8 J	5.4	0.54	ug/l	SW846 8270C
MC19699-2	MW10-ROX-040913-EB					
Di-n-butyl phthalate		2.1 J	5.4	0.42	ug/l	SW846 8270C
Diethyl phthalate		2.0 J	5.4	0.54	ug/l	SW846 8270C
MC19699-3	MW9-ROX-040913					
Di-n-butyl phthalate		1.8 J	5.2	0.40	ug/l	SW846 8270C
Diethyl phthalate		1.6 J	5.2	0.52	ug/l	SW846 8270C
MC19699-4	MW1-ROX-040913					
Benzene		0.40 J	0.50	0.24	ug/l	SW846 8260B
Methyl Tert Butyl Ether		1.2	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		1.2 J	5.3	0.41	ug/l	SW846 8270C
Diethyl phthalate		1.1 J	5.3	0.53	ug/l	SW846 8270C
MC19699-5	TB-ROX-040913-HCL					
No hits reported in this sample.						
MC19699-6	TB-ROX-040913-ST					
No hits reported in this sample.						
MC19699-7	MW2-ROX-040913					
Benzene		17.4	2.5	1.2	ug/l	SW846 8260B
n-Butylbenzene		19.1 J	25	3.0	ug/l	SW846 8260B
sec-Butylbenzene		8.5 J	25	2.8	ng/l	SW846 8260B
Ethylbenzene		910	5.0	2.5	ug/l	SW846 8260B
Isopropylbenzene		85.0	25	2.5	ng/l	SW846 8260B
p-Isopropyltoluene		10.1 J	25	2.9	ng/l	SW846 8260B
Naphthalene		57.8	25	2.5	ug/l	SW846 8260B
n-Propylbenzeue		110	25	2.9	ug/l	SW846 8260B
Toluene		7.3	5.0	2.5	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		338	25	1.7	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		155	25	2.3	ug/l	SW846 8260B
m,p-Xylene		1010	5.0	3.7	ug/l	SW846 8260B

Summary of Hits

Job Number: MC19699
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/09/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
o-Xylene		45.4	5.0	2.9	ug/l	SW846 8260B
Xylene (total)		1050	5.0	2.9	ug/l	SW846 8260B
2,4-Dimethylphenol		5.0 J	11	1.2	ug/l	SW846 8270C
1-Methylnaphthalene		12.0	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		25.6	0.22	0.056	ug/l	SW846 8270C BY SIM
MC19699-8	MW5-ROX-040913					
Benzene		1.8	0.50	0.24	ug/l	SW846 8260B
sec-Butylbenzene		1.8 J	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		6.3	5.0	0.64	ug/l	SW846 8260B
Isopropylbenzene		0.85 J	5.0	0.50	ug/l	SW846 8260B
Methyl Tert Butyl Ether		42.7	1.0	0.41	ug/l	SW846 8260B
Toluene		2.0	1.0	0.51	ug/l	SW846 8260B
m,p-Xylene		1.0	1.0	0.73	ug/l	SW846 8260B
Xylene (total)		1.4	1.0	0.58	ug/l	SW846 8260B
1-Methylnaphthalene		4.0	0.22	0.15	ug/l	SW846 8270C BY SIM
MC19699-9	MW4-ROX-040913					
Benzene		64200	500	240	ug/l	SW846 8260B
Methyl Tert Butyl Ether		112	2.0	0.82	ug/l	SW846 8260B
Toluene		5.7	2.0	1.0	ug/l	SW846 8260B
m,p-Xylene		5.2	2.0	1.5	ug/l	SW846 8260B
Xylene (total)		6.2	2.0	1.2	ug/l	SW846 8260B
Phenol		110	5.3	0.54	ug/l	SW846 8270C
2-Methyluaphthalene		0.082 J	0.22	0.056	ug/l	SW846 8270C BY SIM
MC19699-10	MW4-ROX-040913-DUP					
Benzene		72900	500	240	ug/l	SW846 8260B
Ethylbenzene		0.81 J	1.0	0.51	ug/l	SW846 8260B
Methyl Tert Butyl Ether		125	1.0	0.41	ug/l	SW846 8260B
n-Propylbenzene		4.0 J	5.0	0.58	ug/l	SW846 8260B
Toluene		7.6	1.0	0.51	ug/l	SW846 8260B
m,p-Xylene		7.3	1.0	0.73	ug/l	SW846 8260B
o-Xyleue		1.1	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		8.4	1.0	0.58	ug/l	SW846 8260B
Pheuol		103	5.3	0.54	ug/l	SW846 8270C
Di-n-butyl phthalate		0.62 J	5.3	0.41	ug/l	SW846 8270C
2-Methylnaphthalene		0.076 J	0.21	0.055	ug/l	SW846 8270C BY SIM
MC19699-11	TB-ROX-040913-HCL-A					

No hits reported in this sample.

Summary of Hits

Job Number: MC19699
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Ceutral Avenue, Roxana, IL
Collected: 04/09/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

MC19699-12 TB-ROX-040913-ST-A

No hits reported in this sample.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW10-ROX-040913		
Lab Sample ID:	MC19699-1	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60530.D	1	04/19/13	GK	n/a	n/a	MSH2001
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	ud
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	0.67	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	10	2.4	ug/l	
104-51-8	n-Bntylbenzene	ND	5.0	0.61	ng/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	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 value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-ROX-040913		
Lab Sample ID:	MC19699-1	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Projcet:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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	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-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-Tricbloropropane	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:	MW10-ROX-040913		
Lab Sample ID:	MC19699-1	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	Tolnene-D8	98%		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 Detectiou Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

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

Report of Analysis

Client Sample ID:	MW10-ROX-040913		
Lab Sample ID:	MC19699-1	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13647.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
Run #2							

	Initial Volume	Final Volume
Run #1	920 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	5.4	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.4	0.56	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromopbenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.93	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.71	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.70	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-bntyl phthalate	~~1.9~~ U	5.4	0.42	ug/l	J U
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	MW10-ROX-040913		
Lab Sample ID:	MC19699-1	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Ceutral Avenne, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	~~1.8~~ U	5.4	0.54	ug/l	J U
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	U
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ng/l	
67-72-1	Hexachloroethane	ND	5.4	0.48	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.88	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	22%		15-110%
4165-62-2	Phenol-d5	16%		15-110%
118-79-6	2,4,6-Tribromophenol	67%		15-110%
4165-60-0	Nitrobenzene-d5	66%		30-130%
321-60-8	2-Fluorobiphenyl	65%		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:	MW10-ROX-040913		
Lab Sample ID:	MC19699-1	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82665.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
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	ND	0.11	0.015	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	0.054	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	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	0.079	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.050	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.22	0.056	ug/l	
85-01-8	Phenanthrene	ND	0.054	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.039	ug/l	

CAS No.	Surrogate Recoverics	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	63%		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:	MW10-ROX-040913		
Lab Sample ID:	MC19699-I	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23637.D	1	04/17/13	NK	04/16/13	OP32690	GBK830
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)	97%		36-173%
460-00-4	Bromofluorobenzene (S)	99%		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-040913-EB		
Lab Sample ID:	MC19699-2	Date Sampled:	04/09/13
Matrix:	AQ - Equipment Blank	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxaua, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60525.D	1	04/19/13	GK	n/a	n/a	MSH2001
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	10	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	Chloromethaue	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	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-040913-EB		
Lab Sample ID:	MC19699-2	Date Sampled:	04/09/13
Matrix:	AQ - Equipment Blank	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	Ethylbenzeue	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	Isopropylhenzene	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-Tetrachluroethane	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 au 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-040913-EB		
Lab Sample ID:	MC19699-2	Date Sampled:	04/09/13
Matrix:	AQ - Equipment Blank	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromoflnoromethane	90%		70-130%
2037-26-5	Toluene-D8	101%		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	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:	MW10-ROX-040913-EB		
Lab Sample ID:	MCI9699-2	Date Sampled:	04/09/13
Matrix:	AQ - Equipment Blank	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13648.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
Run #2							

	Initial Volume	Final Volume
Run #1	920 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	5.4	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.4	0.56	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.93	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.71	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.70	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	2.1	5.4	0.42	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	MW10-ROX-040913-EB		
Lab Sample ID:	MC19699-2	Date Sampled:	04/09/13
Matrix:	AQ - Equipment Blank	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	2.0	5.4	0.54	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.48	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.88	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		15-110%
4165-62-2	Phenol-d5	28%		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	72%		30-130%
1718-51-0	Terphenyl-d14	75%		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:	MW10-ROX-040913-EB		
Lab Sample ID:	MC19699-2	Date Sampled:	04/09/13
Matrix:	AQ - Eqnipment Blank	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82666.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
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	ND	0.11	0.015	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	0.054	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	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	0.079	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyreue	ND	0.11	0.050	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.22	0.056	ug/l	
85-01-8	Phenanthrene	ND	0.054	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	72%		30-130%
321-60-8	2-Fluorobiphenyl	69%		30-130%
1718-51-0	Terphenyl-d14	74%		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-040913-EB		
Lab Sample ID:	MC19699-2	Date Sampled:	04/09/13
Matrix:	AQ - Equipment Blank	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23638.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
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)	104%		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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040913		
Lab Sample ID:	MC19699-3	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60531.D	1	04/19/13	GK	n/a	n/a	MSH2001
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	ND	0.50	0.24	ng/l	
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	10	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	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	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	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	ng/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 fonnd in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040913		
Lab Sample ID:	MC19699-3	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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:	MW9-ROX-040913		
Lab Sample ID:	MC19699-3	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	112%		70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cone.	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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	MW9-ROX-040913		
Lab Sample ID:	MC19699-3	Date Sampled:	04/09/13
Matrix:	AQ - Grouud Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13649.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
Run #2 [a]	U13727.D	1	04/22/13	NS	04/15/13	OP32661	MSU694

	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	UJ
95-57-8	2-Chlorophenol	ND	5.2	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimetbylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.66	ng/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	UJ
132-64-9	Dihenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	~~1.8~~ U	5.2	0.40	ug/l	J UJ
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	ug/l	UJ

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040913		
Lab Sample ID:	MC19699-3	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	~~1.6~~ u	5.2	0.52	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.2	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ng/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.45	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.83	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	14% b	14% b	15-110%
4165-62-2	Phenol-d5	15%	15%	15-110%
118-79-6	2,4,6-Tribromophenol	53%	55%	15-110%
4165-60-0	Nitrobenzene-d5	72%	78%	30-130%
321-60-8	2-Fluorobiphenyl	66%	70%	30-130%
1718-51-0	Terphenyl-d14	55%	53%	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.
(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:	MW9-ROX-040913		
Lab Sample ID:	MC19699-3	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82667.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
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	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	0.052	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	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	ND	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
4165-60-0	Nitrobenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	67%		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-040913		
Lab Sample ID:	MC19699-3	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23639.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
Run #2							

	Initial Volume	Final Volume
Run #1	32.6 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	100%		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

Report of Analysis

Client Sample ID:	MW1-ROX-040913		
Lab Sample ID:	MC19699-4	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60532.D	1	04/19/13	GK	n/a	n/a	MSH2001
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	0.40	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	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	10	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 evideuce of a componnd

Report of Analysis

Client Sample ID:	MW1-ROX-040913		
Lab Sample ID:	MC19699-4	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	1.2	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	
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-040913		
Lab Sample ID:	MC19699-4	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	102%		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:	MW1-ROX-040913		
Lab Sample ID:	MC19699-4	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, 1L		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13650.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.62	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.3	0.54	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.61	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.91	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.98	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotolnene	ND	11	0.72	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	~~1.2~~ UJ	5.3	0.41	ug/l	J UJ
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-040913		
Lab Sample ID:	MC19699-4	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	~~1.1~~	5.3	0.53	ug/l	J
131-11-3	Dimethyl phthalate	ND	5.3	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.52	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.47	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.86	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.58	ug/l	
110-86-1	Pyridine	ND	11	0.55	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	28%		15-110%
4165-62-2	Phenol-d5	24%		15-110%
118-79-6	2,4,6-Tribromophenol	70%		15-110%
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	61%		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:	MW1-ROX-040913		
Lab Sample ID:	MC19699-4	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82668.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
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	ND	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
4165-60-0	Nitrobenzene-d5	63%		30-130%
321-60-8	2-Fluorobiphenyl	60%		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:	MW1-ROX-040913		
Lab Sample ID:	MC19699-4	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxaua 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23640.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
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	Bromofluorobeuzene (S)	96%		36-173%
460-00-4	Bromofluorobenzene (S)	98%		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-040913-HCL		
Lab Sample ID:	MC19699-5	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60526.D	1	04/19/13	GK	n/a	n/a	MSH2001
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	Bromochlorometbane	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	10	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-040913-HCL		
Lab Sample ID:	MC19699-5	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-040913-HCL		
Lab Sample ID:	MC19699-5	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	101%		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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040913-ST		
Lab Sample ID:	MC19699-6	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23641.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
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)	104%		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 valne
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a componnd

Report of Analysis

Client Sample ID:	MW2-ROX-040913		
Lab Sample ID:	MC19699-7	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60647.D	5	04/22/13	KR	n/a	n/a	MSH2005
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	50	15	ug/l	
107-02-8	Acrolein	ND	130	51	ug/l	UJ
107-13-1	Acrylonitrile	ND	25	16	ug/l	UJ
71-43-2	Benzene	17.4	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	19.1	25	3.0	ug/l	J
135-98-8	sec-Butylbenzene	8.5	25	2.8	ug/l	J
98-06-6	tert-Butylbenzeue	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	
67-66-3	Chloroform	ND	5.0	2.5	ug/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	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-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 found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW2-ROX-040913		
Lab Sample ID:	MC19699-7	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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	ng/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	910	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	85.0	25	2.5	ug/l	
99-87-6	p-Isopropyltoluene	10.1	25	2.9	ug/l	J
1634-04-4	Methyl Tert Bntyl 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	57.8	25	2.5	ug/l	
103-65-1	n-Propylbenzene	110	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	7.3	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	ng/l	
95-63-6	1,2,4-Trimethylbenzene	338	25	1.7	ug/l	
108-67-8	1,3,5-Trimethylbenzene	155	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	ug/l	
	m,p-Xylene	1010	5.0	3.7	ug/l	
95-47-6	o-Xylene	45.4	5.0	2.9	ug/l	
1330-20-7	Xylene (total)	1050	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:	MW2-ROX-040913		
Lab Sample ID:	MC19699-7	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	100%		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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040913		
Lab Sample ID:	MC19699-7	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13651.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
Run #2							

	Initial Volume	Final Volume
Run #1	920 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	5.4	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	5.0	11	1.2	ug/l	J
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.4	0.56	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl henzyl phthalate	ND	5.4	0.93	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	his(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.71	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.70	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ng/l	U.J
132-64-9	Dibenzofnrau	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.42	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	MW2-ROX-040913		
Lab Sample ID:	MC19699-7	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.48	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.88	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	42%		15-110%
4165-62-2	Phenol-d5	38%		15-110%
118-79-6	2,4,6-Tribromophenol	85%		15-110%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	73%		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-040913		
Lab Sample ID:	MC19699-7	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82669.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
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	ND	0.11	0.015	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	0.054	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ng/l	
205-99-2	Benzo(h)fluoranthene	ND	0.054	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	0.079	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.050	ug/l	
90-12-0	1-Methylnaphthalene	12.0	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	25.6	0.22	0.056	ug/l	
85-01-8	Phenanthrene	ND	0.054	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	74%		30-130%
321-60-8	2-Fluorobipheuyl	69%		30-130%
1718-51-0	Terphenyl-d14	75%		30-130%

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:	MW2-ROX-040913		
Lab Sample ID:	MC19699-7	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23642.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
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	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	113%		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:	MW5-ROX-040913		
Lab Sample ID:	MC19699-8	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60533.D	1	04/19/13	GK	n/a	n/a	MSH2001
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	1.8	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	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	1.8	5.0	0.55	ug/l	J
98-06-6	tert-Butylbenzene	6.3	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetracbloride	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	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
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:	MW5-ROX-040913		
Lab Sample ID:	MC19699-8	Date Sampled:	04/09/13
Matrix:	AQ - Gronnd Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth 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	0.85	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	42.7	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	2.0	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	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbeuzene	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	1.0	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	1.4	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:	MW5-ROX-040913		
Lab Sample ID:	MC19699-8	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	99%		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:	MW5-ROX-040913		
Lab Sample ID:	MC19699-8	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13652.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.4	0.55	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.92	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.99	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.70	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.69	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.42	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	MW5-ROX-040913		
Lab Sample ID:	MC19699-8	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	
67-72-1	Hexachloroethane	ND	5.4	0.47	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.87	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.58	ug/l	
110-86-1	Pyridine	ND	11	0.55	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	85%		15-110%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorohiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	75%		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:	MW5-ROX-040913		
Lab Sample ID:	MC19699-8	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82670.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
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	ND	0.11	0.015	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	0.054	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.025	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	0.063	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	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	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	4.0	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.22	0.056	ug/l	
85-01-8	Phenanthrene	ND	0.054	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	67%		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 found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-ROX-040913		
Lab Sample ID:	MC19699-8	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23643.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
Run #2							

	Initial Volume	Final Volume
Run #1	32.6 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	104%		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:	MW4-ROX-040913		
Lab Sample ID:	MC19699-9	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60537.D	2	04/19/13	GK	n/a	n/a	MSH2001
Run #2	H60585.D	1000	04/20/13	AMY	n/a	n/a	MSH2003

	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	20	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	64200 [a]	500	240	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	ND	10	1.2	ug/l	
135-98-8	sec-Butylbenzene	ND	10	1.1	ug/l	
98-06-6	tert-Butylbenzene	ND	10	1.3	ug/l	
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	ND	4.0	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.5	ug/l	
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:	MW4-ROX-040913		
Lab Sample ID:	MC19699-9	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South 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	ND	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	Isopropylbeuzene	ND	10	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	10	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	112	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	ND	10	1.0	ug/l	
103-65-1	n-Propylbenzene	ND	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	5.7	2.0	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzeue	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	ND	10	0.69	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	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	5.2	2.0	1.5	ug/l	
95-47-6	o-Xylene	ND	2.0	1.2	ug/l	
1330-20-7	Xylene (total)	6.2	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:	MW4-ROX-040913		
Lab Sample ID:	MC19699-9	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%	89%	70-130%
2037-26-5	Toluene-D8	91%	99%	70-130%
460-00-4	4-Bromofluorobenzene	108%	114%	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-040913		
Lab Sample ID:	MC19699-9	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13653.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	110	5.3	0.54	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.33	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.90	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.97	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.71	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UCT
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.41	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-040913		
Lab Sample ID:	MC19699-9	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	U
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.6	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.46	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.85	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.57	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	38%		15-110%
4165-62-2	Phenol-d5	29%		15-110%
118-79-6	2,4,6-Tribromophenol	80%		15-110%
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	65%		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:	MW4-ROX-040913		
Lab Sample ID:	MC19699-9	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82671.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
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	ND	0.11	0.015	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	0.054	0.032	ug/l	
50-32-8	Benzo(a)pyreue	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.025	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	0.063	ug/l	
218-01-9	Chrysene	ND	0.11	0.078	ug/l	
53-70-3	Dibeuzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.035	ug/l	
86-73-7	Fluorene	ND	0.11	0.050	ng/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	0.082	0.22	0.056	ug/l	J
85-01-8	Phenauthrene	ND	0.054	0.014	ug/l	
129-00-0	Pyrene	ND	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	68%		30-130%
321-60-8	2-Fluorobiphenyl	64%		30-130%
1718-51-0	Terphenyl-d14	53%		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-040913		
Lab Sample ID:	MC19699-9	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23645.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
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)	105%		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:	MW4-ROX-040913-DUP		
Lab Sample ID:	MC19699-10	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60534.D	1	04/19/13	GK	n/a	n/a	MSH2001
Run #2	H60654.D	1000	04/22/13	KR	n/a	n/a	MSH2005

	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	10	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	72900 [a]	500	240	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-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 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-040913-DUP		
Lab Sample ID:	MC19699-10	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.81	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	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	125	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ng/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	4.0	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	ng/l	
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	
108-88-3	Toluene	7.6	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	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	7.3	1.0	0.73	ug/l	
95-47-6	o-Xylene	1.1	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	8.4	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:	MW4-ROX-040913-DUP		
Lab Sample ID:	MC19699-10	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%	89%	70-130%
2037-26-5	Toluene-D8	93%	101%	70-130%
460-00-4	4-Bromofluorobenzene	112%	111%	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-040913-DUP		
Lab Sample ID:	MC19699-10	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11311.D	1	04/19/13	KR	04/16/13	OP32678	MSW528
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	103	5.3	0.54	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.33	ug/l	
62-53-3	Aniline	ND	11	0.67	ng/l	UJ
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.90	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.97	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.71	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UJ
132-64-9	Dibenzofnran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	~~0.62~~ U	5.3	0.41	ug/l	J U
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-040913-DUP		
Lab Sample ID:	MC19699-10	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	0.46	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroauiline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.85	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.57	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	36%		15-110%
4165-62-2	Phenol-d5	33%		15-110%
118-79-6	2,4,6-Tribromophenol	75%		15-110%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	67%		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 compouud

Report of Analysis

Client Sample ID:	MW4-ROX-040913-DUP		
Lab Sample ID:	MC19699-10	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82695.D	1	04/18/13	NS	04/16/13	OP32679	MSI3074
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	Acenapbthene	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	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	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	0.076	0.21	0.055	ug/l	J
85-01-8	Phenanthrene	ND	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
4165-60-0	Nitrobenzene-d5	65%		30-130%
321-60-8	2-Fluorobiphenyl	59%		30-130%
1718-51-0	Terphenyl-d14	49%		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-040913-DUP		
Lab Sample ID:	MC19699-10	Date Sampled:	04/09/13
Matrix:	AQ - Ground Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23646.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
Run #2							

	Initial Volume	Final Volume
Run #1	31.0 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	0.017	0.015	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.017	0.012	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	103%		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:	TB-ROX-040913-HCL-A		
Lab Sample ID:	MC19699-11	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60527.D	1	04/19/13	GK	n/a	n/a	MSH2001
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	10	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-040913-HCL-A		
Lab Sample ID:	MC19699-11	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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 (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-Trimethylbeuzene	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-Xyleue	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 compouud

Report of Analysis

Client Sample ID:	TB-ROX-040913-HCL-A		
Lab Sample ID:	MC19699-11	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	101%		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-040913-ST-A		
Lab Sample ID:	MC19699-12	Date Sampled:	04/09/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/10/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxaua, 1L		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23647.D	1	04/18/13	NK	04/16/13	OP32690	GBK830
Run #2							

	Initial Volume	Final Volume
Run #1	32.5 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	100%		36-173%
460-00-4	Bromofluorobenzene (S)	98%		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 ... TION)

☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W, Marlborough, MA 01752 (508-481-6200)
☐ Lab Vendor # (_____)
☐ SPL (_____)

Lab Vendor #

Shell Oi... oducts Chain Of Custody Record

RS

Please Check Appropriate Box:

☑ ENV. SERVICES	☐ MOTIVA RETAIL	☐ SHELL RETAIL
☐ MOTIVA SEABOARD	☐ CONSULTANT	☐ LUBES
☐ SHELL PIPELINE	☐ OTHER _____	

Print Bill To Contact Name: Brian Smith

INCIDENT # (ENV SERVICES): 0 7 2 1 6 8 4 0

☐ CHECK IF NO INCIDE... APPLIES

DATE 4/9/13

PO #

SAP # 3 4 0 0 0 1

PAGE 1 of 2

EMPLOYING COMPANY: URS CORPORATION	COST 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): brian.smith@urs.com, elizabeth.kunkel@urs.com	
SITE ADDRESS (Event and City): 905 South Central Ave, ROXANA	STATE: IL
CITY DESIGNATE TO (Name, Company, Email Address)	PHONE NO.
E-MAIL	CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562860.03002
SAMPLER NAME(S) (Print): L. Rathnow, M. Mansker	LAB USE ONLY: MC19699

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
☐ STARS REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PRIVATE 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)	FIELD NOTES: Container PID Readings or Laboratory Notes
-1	MW10-ROX-040913	4/9/13	08:50	Water	2			2	2	6	X	X	X	X	0	
-2	MW10-ROX-040913-EB		09:10		2			2	2	6	X	X	X	X		
-3	MW9-ROX-040913		10:00		2			2	2	6	X	X	X	X		
-4	MW1-ROX-040913		10:50		2			2	2	6	X	X	X	X		
-5	TB-ROX-040913-HCL		00:00		2					2	X					
-6	TB-ROX-040913-ST		00:00						2	2		X				
-7	MW2-ROX-040913		12:40		2			2	2	6	X	X	X	X		16D, 4M3
-8	MW5-ROX-040913		13:35		2			2	2	6	X	X	X	X		
-9	MW4-ROX-040913		14:35		2			2	2	6	X	X	X	X		
-10	MW4-ROX-040913-DUP	↓	14:35	↓	2			2	2	6	X	X	X	X	↓	

Relinquished by (Signature)	Received by (Signature)	Date	Time
[signature]	FED EX	4/9/13	17:00
FEDX	[signature]	4-10-13	9:30

6.3°C - 0.2°C

5.1

LAB ION)

☐ XENCO (_____)
☐ CALSCIENCE (_____)
☑ OTHER Accutest Labs, 495 Technology Ctr W Marlborough, MA 01752 (508-481-6200)
☐ SPL (_____)
Lab Vendor #

Shell Oi oducts Chain Of Custody Record URS

Please Check Appropriate Box:
☑ ENV SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print bill To Contact Name: Brian Smith
PO #
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDE... APPLIES
DATE 4/9/13
PAGE 2 of 2

Sampler's 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 E-mail: brian.smith@urs.com, elizabeth.kunkel@urs.com
Turnaround Time (Lab Prelim 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: 900 South Central Ave, ROXANA, IL
EDF Deliverable To (Name, Company, Office Location):
Phone No:
Email:
Consultant Project No: Roxana Quarterly GW / 21562850.03002
Sampler's Name(s) (Print): L. Rathnow, M. Mensker
LAB USE ONLY: MC19699

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
☐ MAINTAIN 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
-11	TB-ROX-040913-HCL-A	4/9/13	00:00	water	2					2	X				0	
-12	TB-ROX-040913-ST-A	4/9/13	00:00	water					2	2		X			0	

FIELD NOTES:
TEMPERATURE ON RECEIPT C°

Relinquished by (Signature)	Received by (Signature)	Date	Time
	FED EX	4/9/13	17:00
FEDX		4-10-13	930

0.3°-0.2°C

02/06 Revision

5.1

MC19699: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19699 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/10/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: 900 SOUTH CENTRAL AVE **No. Coolers:** 2 **AirbIII #'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 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

MC19699: Chain of Cnstody
Page 3 of 3

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19699

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19699-1 Collected: 09-APR-13 08:50 By: LRMM Received: 10-APR-13 By: MW10-ROX-040913						
MC19699-1	SW846 8270C	16-APR-13 17:54	NS	15-APR-13	MEW	AB8270SL+
MC19699-1	SW846 8270C BY SIM	17-APR-13 17:02	NS	15-APR-13	MEW	B8270SIMSL
MC19699-1	SW846 8011	17-APR-13 23:46	NK	16-APR-13	CC	V8011SL
MC19699-1	SW846 8260B	19-APR-13 13:31	GK			V8260SL+
MC19699-2 Collected: 09-APR-13 09:10 By: LRMM Received: 10-APR-13 By: MW10-ROX-040913-EB						
MC19699-2	SW846 8270C	16-APR-13 18:16	NS	15-APR-13	MEW	AB8270SL+
MC19699-2	SW846 8270C BY SIM	17-APR-13 17:24	NS	15-APR-13	MEW	B8270SIMSL
MC19699-2	SW846 8011	18-APR-13 00:10	NK	16-APR-13	CC	V8011SL
MC19699-2	SW846 8260B	19-APR-13 11:10	GK			V8260SL+
MC19699-3 Collected: 09-APR-13 10:00 By: LRMM Received: 10-APR-13 By: MW9-ROX-040913						
MC19699-3	SW846 8270C	16-APR-13 18:38	NS	15-APR-13	MEW	AB8270SL+
MC19699-3	SW846 8270C BY SIM	17-APR-13 17:48	NS	15-APR-13	MEW	B8270SIMSL
MC19699-3	SW846 8011	18-APR-13 00:34	NK	16-APR-13	CC	V8011SL
MC19699-3	SW846 8260B	19-APR-13 13:59	GK			V8260SL+
MC19699-3	SW846 8270C	22-APR-13 09:27	NS	15-APR-13	MEW	AB8270SL+
MC19699-4 Collected: 09-APR-13 10:50 By: LRMM Received: 10-APR-13 By: MW1-ROX-040913						
MC19699-4	SW846 8270C	16-APR-13 19:00	NS	15-APR-13	MEW	AB8270SL+
MC19699-4	SW846 8270C BY SIM	17-APR-13 18:11	NS	15-APR-13	MEW	B8270SIMSL
MC19699-4	SW846 8011	18-APR-13 00:58	NK	16-APR-13	CC	V8011SL
MC19699-4	SW846 8260B	19-APR-13 14:27	GK			V8260SL+
MC19699-5 Collected: 09-APR-13 00:00 By: LRMM Received: 10-APR-13 By: TB-ROX-040913-HCL						
MC19699-5	SW846 8260B	19-APR-13 11:37	GK			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19699

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19699-6 Collected: 09-APR-13 00:00 By: LRMM Received: 10-APR-13 By: TB-ROX-040913-ST						
MC19699-6	SW846 8011	18-APR-13 01:22	NK	16-APR-13	CC	V8011SL
MC19699-7 Collected: 09-APR-13 12:40 By: LRMM Received: 10-APR-13 By: MW2-ROX-040913						
MC19699-7	SW846 8270C	16-APR-13 19:22	NS	15-APR-13	MEW	AB8270SL+
MC19699-7	SW846 8270C BY SIM	17-APR-13 18:35	NS	15-APR-13	MEW	B8270SIMSL
MC19699-7	SW846 8011	18-APR-13 01:46	NK	16-APR-13	CC	V8011SL
MC19699-7	SW846 8260B	22-APR-13 13:00	KR			V8260SL+
MC19699-8 Collected: 09-APR-13 13:25 By: LRMM Received: 10-APR-13 By: MW5-ROX-040913						
MC19699-8	SW846 8270C	16-APR-13 19:44	NS	15-APR-13	MEW	AB8270SL+
MC19699-8	SW846 8270C BY SIM	17-APR-13 18:57	NS	15-APR-13	MEW	B8270SIMSL
MC19699-8	SW846 8011	18-APR-13 02:09	NK	16-APR-13	CC	V8011SL
MC19699-8	SW846 8260B	19-APR-13 14:55	GK			V8260SL+
MC19699-9 Collected: 09-APR-13 14:35 By: LRMM Received: 10-APR-13 By: MW4-ROX-040913						
MC19699-9	SW846 8270C	16-APR-13 20:06	NS	15-APR-13	MEW	AB8270SL+
MC19699-9	SW846 8270C BY SIM	17-APR-13 19:20	NS	15-APR-13	MEW	B8270SIMSL
MC19699-9	SW846 8011	18-APR-13 02:56	NK	16-APR-13	CC	V8011SL
MC19699-9	SW846 8260B	19-APR-13 16:48	GK			V8260SL+
MC19699-9	SW846 8260B	20-APR-13 15:46	AMY			V8260SL+
MC19699-10 Collected: 09-APR-13 14:35 By: LRMM Received: 10-APR-13 By: MW4-ROX-040913-DUP						
MC19699-10	SW846 8011	18-APR-13 03:20	NK	16-APR-13	CC	V8011SL
MC19699-10	SW846 8270C BY SIM	18-APR-13 17:49	NS	16-APR-13	MT	B8270SIMSL
MC19699-10	SW846 8270C	19-APR-13 10:29	KR	16-APR-13	MT	AB8270SL+
MC19699-10	SW846 8260B	19-APR-13 15:23	GK			V8260SL+
MC19699-10	SW846 8260B	22-APR-13 16:23	KR			V8260SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19699

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19699-11	Collected: 09-APR-13 00:00 By: LRMM Received: 10-APR-13 By: TB-ROX-040913-HCL-A					
MC19699-11	SW846 8260B	19-APR-13 12:06	GK			V8260SL+
MC19699-12	Collected: 09-APR-13 00:00 By: LRMM Received: 10-APR-13 By: TB-ROX-040913-ST-A					
MC19699-12	SW846 8011	18-APR-13 03:43	NK	16-APR-13	CC	V8011SL

Accutest Internal Chain of Custody

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/10/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19699-1.1	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19699-1.1	Michael Rolo		04/16/13 07:05	Depleted
MC19699-1.3	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage
MC19699-1.3	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrnment
MC19699-1.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-1.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-1.5	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-1.5	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-2.1	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19699-2.1	Michael Rolo		04/16/13 07:05	Depleted
MC19699-2.4	VOC Ref #4	Kerry Ryan	04/19/13 10:30	Retrieve from Storage
MC19699-2.4	Kerry Ryan	GCMSH	04/19/13 10:30	Load on Instrument
MC19699-2.4	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-2.4	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-2.6	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-2.6	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-3.1	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19699-3.1	Michael Rolo		04/16/13 07:05	Depleted
MC19699-3.3	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage
MC19699-3.3	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrument
MC19699-3.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-3.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-3.6	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-3.6	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-4.1	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19699-4.1	Michael Rolo		04/16/13 07:05	Depleted
MC19699-4.3	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage
MC19699-4.3	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrument
MC19699-4.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-4.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-4.4	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage
MC19699-4.4	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrument
MC19699-4.4	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument

5.3

Accutest Internal Chain of Custody

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/10/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19699-4.4	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-4.6	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-4.6	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-5.2	VOC Ref #4	Kerry Ryan	04/19/13 10:30	Retrieve from Storage
MC19699-5.2	Kerry Ryan	GCMSH	04/19/13 10:30	Load on Instrument
MC19699-5.2	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-5.2	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-6.1	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-6.1	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-7.1	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19699-7.1	Michael Rolo		04/16/13 07:05	Depleted
MC19699-7.3	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage
MC19699-7.3	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrument
MC19699-7.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-7.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-7.4	VOC Ref #4	Kerry Ryan	04/22/13 11:46	Retrieve from Storage
MC19699-7.4	Kerry Ryan	GCMSH	04/22/13 11:46	Load on Instrument
MC19699-7.4	GCMSH	Gary Krasinski	04/23/13 09:22	Unload from Instrument
MC19699-7.4	Gary Krasinski	VOC Ref #4	04/23/13 09:22	Retnrn to Storage
MC19699-7.6	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-7.6	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-8.1	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19699-8.1	Michael Rolo		04/16/13 07:05	Depleted
MC19699-8.4	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage
MC19699-8.4	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrument
MC19699-8.4	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-8.4	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-8.6	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-8.6	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-9.2	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19699-9.2	Michael Rolo		04/16/13 07:05	Depleted
MC19699-9.3	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/10/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19699-9.3	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrument
MC19699-9.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-9.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-9.5	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-9.5	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-10.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19699-10.2	Michael Rolo		04/17/13 07:24	Depleted
MC19699-10.3	VOC Ref #4	Kerry Ryan	04/19/13 11:16	Retrieve from Storage
MC19699-10.3	Kerry Ryan	GCMSH	04/19/13 11:31	Load on Instrument
MC19699-10.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-10.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-10.4	VOC Ref #4	Kerry Ryan	04/22/13 11:46	Retrieve from Storage
MC19699-10.4	Kerry Ryan	GCMSH	04/22/13 11:46	Load on Instrument
MC19699-10.4	GCMSH	Gary Krasinski	04/23/13 09:22	Unload from Instrument
MC19699-10.4	Gary Krasinski	VOC Ref #4	04/23/13 09:22	Return to Storage
MC19699-10.5	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-10.5	Corey Aldoupolis		04/16/13 21:47	Depleted
MC19699-11.1	VOC Ref #4	Kerry Ryan	04/19/13 10:30	Retrieve from Storage
MC19699-11.1	Kerry Ryan	GCMSH	04/19/13 10:30	Load on Instrument
MC19699-11.1	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19699-11.1	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19699-12.1	VOC Ref #4	Corey Aldoupolis	04/16/13 18:35	Retrieve from Storage
MC19699-12.1	Corey Aldoupolis		04/16/13 21:47	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

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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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2001-MB	H60524.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

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	Bromobeuzene	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-Bntanone (MEK)	ND	10	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-Chlorotolueue	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-Dichlorobenzene	ND	1.0	0.45	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ng/l	
75-71-8	Dichlorodiflnoromethane	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
MSH2001-MB	H60524.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

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-Isopropyltolnene	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2001-MB	H60524.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	89%	70-130%
2037-26-5	Toluene-D8	104%	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-MB	H60579.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-9

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	86%	70-130%
2037-26-5	Toluene-D8	102%	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	

Method Blank Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

6.1.3

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	89%	70-130%
2037-26-5	Toluene-D8	103%	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	

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2001-BS	H60521.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	91.9	184* a	70-130
107-02-8	Acrolein	250	149	60* b	70-130
107-13-1	Acrylonitrile	50	37.8	76	70-130
71-43-2	Benzene	50	54.4	109	70-130
108-86-1	Bromobenzene	50	56.1	112	70-130
74-97-5	Bromochloromethane	50	50.8	102	70-130
75-27-4	Bromodichloromethane	50	58.0	116	70-130
75-25-2	Bromoform	50	58.7	117	70-130
74-83-9	Bromomethane	50	57.5	115	70-130
78-93-3	2-Butanone (MEK)	50	67.9	136* b	70-130
104-51-8	n-Butylbenzene	50	58.5	117	70-130
135-98-8	sec-Butylbenzene	50	56.7	113	70-130
98-06-6	tert-Butylbenzene	50	56.3	113	70-130
75-15-0	Carbon disulfide	50	51.0	102	70-130
56-23-5	Carbon tetrachloride	50	64.2	128	70-130
108-90-7	Chlorobenzene	50	53.6	107	70-130
75-00-3	Chloroethane	50	58.7	117	70-130
110-75-8	2-Chloroethyl vinyl ether	50	38.2	76	70-130
67-66-3	Chloroform	50	51.5	103	70-130
74-87-3	Chloromethane	50	62.5	125	70-130
95-49-8	o-Chlorotoluene	50	51.9	104	70-130
106-43-4	p-Chlorotoluene	50	54.6	109	70-130
124-48-1	Dibromochloromethane	50	56.6	113	70-130
95-50-1	1,2-Dichlorobenzene	50	53.7	107	70-130
541-73-1	1,3-Dichlorobenzene	50	55.0	110	70-130
106-46-7	1,4-Dichlorobenzene	50	55.1	110	70-130
75-71-8	Dichlorodifluoromethane	50	67.8	136* b	70-130
75-34-3	1,1-Dichloroethane	50	48.4	97	70-130
107-06-2	1,2-Dichloroethane	50	52.1	104	70-130
75-35-4	1,1-Dichloroethene	50	53.8	108	70-130
156-59-2	cis-1,2-Dichloroethene	50	48.9	98	70-130
156-60-5	trans-1,2-Dichloroethene	50	49.2	98	70-130
78-87-5	1,2-Dichloropropane	50	50.0	100	70-130
142-28-9	1,3-Dichloropropane	50	55.0	110	70-130
594-20-7	2,2-Dichloropropane	50	59.4	119	70-130
563-58-6	1,1-Dichloropropene	50	56.3	113	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2001-BS	H60521.D	1	04/19/13	GK	n/a	n/a	MSH2001

6.2.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	47.4	95	70-130
10061-02-6	trans-1,3-Dichloropropene	50	50.0	100	70-130
123-91-1	1,4-Dioxane	250	240	96	70-130
97-63-2	Ethyl methacrylate	50	48.7	97	77-137
100-41-4	Ethylbenzene	50	60.2	120	70-130
87-68-3	Hexachlorobutadiene	50	59.4	119	70-130
591-78-6	2-Hexanone	50	76.2	152* b	70-130
98-82-8	Isopropylbenzene	50	56.1	112	70-130
99-87-6	p-Isopropyltoluene	50	60.9	122	70-130
1634-04-4	Methyl Tert Butyl Ether	50	50.1	100	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	51.8	104	70-130
74-95-3	Methylene bromide	50	54.9	110	70-130
75-09-2	Methylene chloride	50	48.9	98	70-130
91-20-3	Naphthalene	50	49.9	100	70-130
103-65-1	n-Propylbenzene	50	54.5	109	70-130
100-42-5	Styrene	50	60.2	120	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	63.6	127	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	59.0	118	70-130
127-18-4	Tetrachloroethene	50	61.1	122	70-130
108-88-3	Toluene	50	52.9	106	70-130
87-61-6	1,2,3-Trichlorobenzene	50	53.1	106	70-130
120-82-1	1,2,4-Trichlorobenzene	50	53.7	107	70-130
71-55-6	1,1,1-Trichloroethane	50	56.3	113	70-130
79-00-5	1,1,2-Trichloroethane	50	50.7	101	70-130
79-01-6	Trichloroethene	50	53.7	107	70-130
75-69-4	Trichlorofluoromethane	50	59.4	119	70-130
96-18-4	1,2,3-Trichloropropane	50	53.4	107	70-130
95-63-6	1,2,4-Trimethylbenzene	50	57.2	114	70-130
108-67-8	1,3,5-Trimethylbenzene	50	58.2	116	70-130
108-05-4	Vinyl Acetate	50	55.0	110	70-130
75-01-4	Vinyl chloride	50	53.6	107	70-130
	m,p-Xylene	100	121	121	70-130
95-47-6	o-Xylene	50	59.1	118	70-130
1330-20-7	Xylene (total)	150	180	120	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2001-BS	H60521.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobeuzene	107%	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.

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-BS	H60577.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	49.9	100	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	107%	70-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	79.1	158* a	70-130
107-02-8	Acrolein	250	119	48* a	70-130
107-13-1	Acrylonitrile	50	30.9	62* a	70-130
71-43-2	Benzene	50	50.1	100	70-130
108-86-1	Bromobenzene	50	57.6	115	70-130
74-97-5	Bromochloromethane	50	49.5	99	70-130
75-27-4	Bromodichloromethane	50	61.1	122	70-130
75-25-2	Bromoform	50	60.8	122	70-130
74-83-9	Bromomethane	50	50.9	102	70-130
78-93-3	2-Butanone (MEK)	50	56.6	113	70-130
104-51-8	n-Butylbenzene	50	58.6	117	70-130
135-98-8	sec-Bntylbenzene	50	55.3	111	70-130
98-06-6	tert-Butylbenzene	50	56.7	113	70-130
75-15-0	Carbon disulfide	50	43.5	87	70-130
56-23-5	Carbon tetrachloride	50	67.0	134* a	70-130
108-90-7	Chlorobenzene	50	53.0	106	70-130
75-00-3	Chloroethane	50	48.1	96	70-130
110-75-8	2-Chloroethyl vinyl ether	50	33.8	68* a	70-130
67-66-3	Chloroform	50	50.7	101	70-130
74-87-3	Chloromethane	50	52.9	106	70-130
95-49-8	o-Chlorotoluene	50	52.4	105	70-130
106-43-4	p-Chlorotoluene	50	54.2	108	70-130
124-48-1	Dibromochloromethane	50	59.5	119	70-130
95-50-1	1,2-Dichlorobenzene	50	55.7	111	70-130
541-73-1	1,3-Dichlorobenzene	50	56.4	113	70-130
106-46-7	1,4-Dichlorobenzene	50	55.0	110	70-130
75-71-8	Dichlorodiflnoromethane	50	60.4	121	70-130
75-34-3	1,1-Dichloroethane	50	45.1	90	70-130
107-06-2	1,2-Dichloroethane	50	56.8	114	70-130
75-35-4	1,1-Dichloroethene	50	48.8	98	70-130
156-59-2	cis-1,2-Dichloroethene	50	46.4	93	70-130
156-60-5	trans-1,2-Dichloroethene	50	45.2	90	70-130
78-87-5	1,2-Dichloropropane	50	46.6	93	70-130
142-28-9	1,3-Dichloropropane	50	53.1	106	70-130
594-20-7	2,2-Dichloropropane	50	60.4	121	70-130
563-58-6	1,1-Dichloropropene	50	53.7	107	70-130

* = Outside of Control Limits.

6.2.3

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

6.2.3

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	47.7	95	70-130
10061-02-6	trans-1,3-Dichloropropene	50	53.0	106	70-130
123-91-1	1,4-Dioxane	250	221	88	70-130
97-63-2	Ethyl methacrylate	50	45.4	91	77-137
100-41-4	Ethylbenzene	50	58.6	117	70-130
87-68-3	Hexachlorobutadiene	50	64.4	129	70-130
591-78-6	2-Hexanone	50	64.2	128	70-130
98-82-8	Isopropylbenzene	50	55.8	112	70-130
99-87-6	p-Isopropyltoluene	50	60.8	122	70-130
1634-04-4	Methyl Tert Butyl Ether	50	47.4	95	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	42.5	85	70-130
74-95-3	Methylene bromide	50	55.2	110	70-130
75-09-2	Methylene chloride	50	44.9	90	70-130
91-20-3	Naphthalene	50	48.9	98	70-130
103-65-1	n-Propylbenzene	50	53.5	107	70-130
100-42-5	Styrene	50	59.2	118	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	67.3	135* a	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	55.0	110	70-130
127-18-4	Tetrachloroethene	50	60.2	120	70-130
108-88-3	Toluene	50	51.5	103	70-130
87-61-6	1,2,3-Trichlorobenzene	50	55.8	112	70-130
120-82-1	1,2,4-Trichlorobenzene	50	57.0	114	70-130
71-55-6	1,1,1-Trichloroethane	50	56.7	113	70-130
79-00-5	1,1,2-Trichloroethane	50	50.7	101	70-130
79-01-6	Trichloroethene	50	52.4	105	70-130
75-69-4	Trichlorofluoromethane	50	56.5	113	70-130
96-18-4	1,2,3-Trichloropropane	50	53.3	107	70-130
95-63-6	1,2,4-Trimethylbenzene	50	57.7	115	70-130
108-67-8	1,3,5-Trimethylbenzene	50	58.2	116	70-130
108-05-4	Vinyl Acetate	50	49.9	100	70-130
75-01-4	Vinyl chloride	50	45.1	90	70-130
	m,p-Xylene	100	117	117	70-130
95-47-6	o-Xylene	50	58.4	117	70-130
1330-20-7	Xylene (total)	150	176	117	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19699-4MS	H60535.D	5	04/19/13	GK	n/a	n/a	MSH2001
MC19699-4MSD	H60536.D	5	04/19/13	GK	n/a	n/a	MSH2001
MC19699-4	H60532.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

6.3.1

6

CAS No.	Compound	MC19699-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	222	89	215	86	3	70-130/30
107-02-8	Acrolein	ND		1250	541	43* a	550	44* a	2	70-130/30
107-13-1	Acrylonitrile	ND		250	182	73	184	74	1	70-130/30
71-43-2	Benzene	0.40	J	250	294	117	268	107	9	70-130/30
108-86-1	Bromobenzene	ND		250	267	107	269	108	1	70-130/30
74-97-5	Bromochloromethane	ND		250	239	96	246	98	3	70-130/30
75-27-4	Bromodichloromethane	ND		250	258	103	262	105	2	70-130/30
75-25-2	Bromoform	ND		250	231	92	237	95	3	70-130/30
74-83-9	Bromomethane	ND		250	245	98	259	104	6	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	222	89	218	87	2	70-130/30
104-51-8	n-Butylbenzene	ND		250	263	105	266	106	1	70-130/30
135-98-8	sec-Butylbenzene	ND		250	251	100	258	103	3	70-130/30
98-06-6	tert-Butylbenzene	ND		250	259	104	261	104	1	70-130/30
75-15-0	Carbon disulfide	ND		250	189	76	189	76	0	70-130/30
56-23-5	Carbon tetrachloride	ND		250	270	108	276	110	2	70-130/30
108-90-7	Chlorobenzene	ND		250	254	102	255	102	0	70-130/30
75-00-3	Chloroethane	ND		250	247	99	251	100	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* a	6.8	3* a	200* b	70-130/30
67-66-3	Chloroform	ND		250	240	96	243	97	1	70-130/30
74-87-3	Chloromethane	ND		250	261	104	273	109	4	70-130/30
95-49-8	o-Chlorotoluene	ND		250	244	98	247	99	1	70-130/30
106-43-4	p-Chlorotoluene	ND		250	256	102	257	103	0	70-130/30
124-48-1	Dibromochloromethane	ND		250	240	96	242	97	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	254	102	253	101	0	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	255	102	259	104	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	257	103	261	104	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	290	116	286	114	1	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	223	89	230	92	3	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	252	101	250	100	1	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	245	98	245	98	0	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	230	92	232	93	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	229	92	234	94	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	230	92	238	95	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	266	106	266	106	0	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	254	102	254	102	0	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	250	100	259	104	4	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19699-4MS	H60535.D	5	04/19/13	GK	n/a	n/a	MSH2001
MC19699-4MSD	H60536.D	5	04/19/13	GK	n/a	n/a	MSH2001
MC19699-4	H60532.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

6.3.1

6

CAS No.	Compound	MC19699-4 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	214	86	223	89	4	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	227	91	234	94	3	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1100	88	1110	89	1	70-130/30
97-63-2	Ethyl methacrylate	ND		250	222	89	231	92	4	72-139/30
100-41-4	Ethylbenzene	ND		250	283	113	284	114	0	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	263	105	270	108	3	70-130/30
591-78-6	2-Hexanone	ND		250	256	102	258	103	1	70-130/30
98-82-8	Isopropylbenzene	ND		250	259	104	263	105	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	277	111	282	113	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	1.2		250	239	95	235	94	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	232	93	228	91	2	70-130/30
74-95-3	Methylene bromide	ND		250	255	102	259	104	2	70-130/30
75-09-2	Methylene chloride	ND		250	224	90	225	90	0	70-130/30
91-20-3	Naphthalene	ND		250	247	99	260	104	5	70-130/30
103-65-1	n-Propylbenzene	ND		250	253	101	257	103	2	70-130/30
100-42-5	Styrene	ND		250	264	106	274	110	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	290	116	289	116	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	289	116	290	116	0	70-130/30
127-18-4	Tetrachloroethene	ND		250	280	112	285	114	2	70-130/30
108-88-3	Toluene	ND		250	246	98	253	101	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	259	104	270	108	4	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	254	102	265	106	4	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	252	101	253	101	0	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	242	97	246	98	2	70-130/30
79-01-6	Trichloroethene	ND		250	242	97	249	100	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	251	100	250	100	0	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	245	98	248	99	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	264	106	268	107	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	267	107	270	108	1	70-130/30
108-05-4	Vinyl Acetate	ND		250	285	114	285	114	0	70-130/30
75-01-4	Vinyl chloride	ND		250	224	90	229	92	2	70-130/30
	m,p-Xylene	ND		500	571	114	569	114	0	70-130/30
95-47-6	o-Xylene	ND		250	276	110	276	110	0	70-130/30
1330-20-7	Xylene (total)	ND		750	847	113	845	113	0	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19699-4MS	H60535.D	5	04/19/13	GK	n/a	n/a	MSH2001
MC19699-4MSD	H60536.D	5	04/19/13	GK	n/a	n/a	MSH2001
MC19699-4	H60532.D	1	04/19/13	GK	n/a	n/a	MSH2001

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-5, MC19699-8, MC19699-9, MC19699-10, MC19699-11

6.3.1

CAS No.	Surrogate Recoveries	MS	MSD	MC19699-4	Limits
1868-53-7	Dibromofluoromethane	94%	94%	89%	70-130%
2037-26-5	Toluene-D8	99%	101%	102%	70-130%
460-00-4	4-Bromofluorobenzene	106%	106%	113%	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19724-5MS	H60589.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5MSD	H60590.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5	H60582.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-9

CAS No.	Compound	MC19724-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	172		50	217	90	212	80	2	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
1868-53-7	Dibromofluoromethane	98%	96%	89%	70-130%
2037-26-5	Toluene-D8	99%	99%	100%	70-130%
460-00-4	4-Bromofluorobeuzene	105%	107%	112%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

6.3.3

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Compound	MC19922-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	191	76	176	70	8	70-130/30
107-02-8	Acrolein	ND		1250	581	46* [a]	531	42* [a]	9	70-130/30
107-13-1	Acrylonitrile	ND		250	161	64* [a]	145	58* [a]	10	70-130/30
71-43-2	Benzene	ND		250	249	100	228	91	9	70-130/30
108-86-1	Bromobenzene	ND		250	279	112	261	104	7	70-130/30
74-97-5	Bromochloromethane	ND		250	243	97	228	91	6	70-130/30
75-27-4	Bromodichloromethane	ND		250	303	121	270	108	12	70-130/30
75-25-2	Bromoform	ND		250	299	120	269	108	11	70-130/30
74-83-9	Bromomethane	ND		250	250	100	234	94	7	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	192	77	178	71	8	70-130/30
104-51-8	n-Butylbenzene	ND		250	268	107	247	99	8	70-130/30
135-98-8	sec-Butylbenzene	ND		250	258	103	240	96	7	70-130/30
98-06-6	tert-Butylbenzene	ND		250	269	108	251	100	7	70-130/30
75-15-0	Carbon disulfide	ND		250	193	77	167	67* [a]	14	70-130/30
56-23-5	Carbon tetrachloride	ND		250	323	129	286	114	12	70-130/30
108-90-7	Chlorobenzene	ND		250	261	104	242	97	8	70-130/30
75-00-3	Chloroethane	ND		250	224	90	211	84	6	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	1.1		250	253	101	230	92	10	70-130/30
74-87-3	Chloromethane	ND		250	245	98	229	92	7	70-130/30
95-49-8	o-Chlorotoluene	ND		250	251	100	231	92	8	70-130/30
106-43-4	p-Chlorotoluene	ND		250	261	104	243	97	7	70-130/30
124-48-1	Dibromochloromethane	ND		250	290	116	268	107	8	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	266	106	246	98	8	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	272	109	250	100	8	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	270	108	254	102	6	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	278	111	255	102	9	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	221	88	199	80	10	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	283	113	255	102	10	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	232	93	210	84	10	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	228	91	209	84	9	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	221	88	204	82	8	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	229	92	208	83	10	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	265	106	249	100	6	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	288	115	266	106	8	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	257	103	240	96	7	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Compound	MC19922-1 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	237	95	211	84	12	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	260	104	233	93	11	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1010	81	976	78	3	70-130/30
97-63-2	Ethyl methacrylate	ND		250	227	91	202	81	12	72-139/30
100-41-4	Ethylbenzene	ND		250	290	116	268	107	8	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	290	116	265	106	9	70-130/30
591-78-6	2-Hexanone	ND		250	219	88	205	82	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	266	106	247	99	7	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	290	116	270	108	7	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	232	93	209	84	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	206	82	188	75	9	70-130/30
74-95-3	Methylene bromide	ND		250	274	110	249	100	10	70-130/30
75-09-2	Methylene chloride	ND		250	215	86	200	80	7	70-130/30
91-20-3	Naphthalene	ND		250	226	90	213	85	6	70-130/30
103-65-1	n-Propylbenzene	ND		250	252	101	235	94	7	70-130/30
100-42-5	Styrene	ND		250	291	116	264	106	10	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	329	132* [a]	300	120	9	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	280	112	254	102	10	70-130/30
127-18-4	Tetrachloroethene	ND		250	295	118	274	110	7	70-130/30
108-88-3	Toluene	ND		250	256	102	235	94	9	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	250	100	237	95	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	258	103	239	96	8	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	278	111	250	100	11	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	255	102	224	90	13	70-130/30
79-01-6	Trichloroethene	ND		250	255	102	231	92	10	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	266	106	238	95	11	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	255	102	236	94	8	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	277	111	257	103	7	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	277	111	258	103	7	70-130/30
108-05-4	Vinyl Acetate	ND		250	255	102	234	94	9	70-130/30
75-01-4	Vinyl chloride	ND		250	211	84	198	79	6	70-130/30
	m,p-Xylene	ND		500	584	117	535	107	9	70-130/30
95-47-6	o-Xylene	ND		250	289	116	267	107	8	70-130/30
1330-20-7	Xylene (total)	ND		750	873	116	802	107	8	70-130/30

* = Outside of Control Limits.

6.3.3

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19699-7, MC19699-10

CAS No.	Surrogate Recoveries	MS	MSD	MC19922-1	Limits
1868-53-7	Dibromofluoromethane	93%	96%	89%	70-130%
2037-26-5	Toluene-D8	102%	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	105%	105%	111%	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2001-CC1993	Injection Date:	04/19/13
Lab File ID:	H60520.D	Injection Time:	08:49
Instrument ID:	GCMSH	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	189067	8.70	267220	9.57	120454	12.83	152711	15.40	42419	6.28
Upper Limit [a]	378134	9.20	534440	10.07	240908	13.33	305422	15.90	84838	6.78
Lower Limit [b]	94534	8.20	133610	9.07	60227	12.33	76356	14.90	21210	5.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2001-BS	181040	8.70	257760	9.57	116349	12.83	149917	15.40	42961	6.27
MSH2001-MB	172464	8.70	232739	9.57	98596	12.83	117278	15.40	39793	6.28
MC19699-2	185029	8.70	255277	9.57	108785	12.83	125135	15.40	38439	6.28
MC19699-5	171699	8.71	236447	9.57	98283	12.83	116878	15.40	38516	6.28
MC19699-11	179867	8.71	250624	9.57	105954	12.83	123708	15.40	41778	6.28
ZZZZZZ	172034	8.71	234712	9.57	99542	12.83	118572	15.40	37292	6.29
ZZZZZZ	166011	8.70	228996	9.58	96958	12.83	114840	15.40	39493	6.29
MC19699-1	167251	8.70	230719	9.57	95319	12.83	111657	15.40	40772	6.29
MC19699-3	168841	8.70	229337	9.57	97324	12.83	116707	15.40	39568	6.28
MC19699-4	165224	8.70	227336	9.57	96922	12.83	112083	15.40	39817	6.28
MC19699-8	167951	8.70	229704	9.57	96665	12.83	121157	15.40	41420	6.27
MC19699-10	186021	8.71	293855	9.58	109708	12.83	130476	15.40	47976	6.27
MC19699-4MS	184961	8.70	263924	9.57	115562	12.83	149546	15.39	43455	6.28
MC19699-4MSD	193384	8.70	275885	9.57	122945	12.83	155543	15.40	45587	6.27
MC19699-9	209430	8.71	326559	9.57	119281	12.83	145898	15.40	51593	6.28
ZZZZZZ	202928	8.70	299314	9.57	116457	12.83	149640	15.39	54771	6.28
ZZZZZZ	202809	8.70	296537	9.57	121435	12.83	156792	15.40	54647	6.28
ZZZZZZ	197703	8.70	293083	9.57	118511	12.83	148670	15.40	51756	6.28
ZZZZZZ	190105	8.71	267664	9.57	110471	12.83	137473	15.40	46920	6.27
ZZZZZZ	183191	8.70	259162	9.57	106642	12.83	130508	15.40	43815	6.28
ZZZZZZ	185284	8.70	258446	9.57	105585	12.83	130050	15.40	39724	6.28
ZZZZZZ	180262	8.70	248477	9.57	103459	12.83	122318	15.40	37999	6.28

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2003-CC1993	Injection Date:	04/20/13
Lab File ID:	H60576.D	Injection Time:	11:38
Instrument ID:	GCMSH	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	206783	8.70	291185	9.57	126113	12.83	161897	15.39	44462	6.27
Upper Limit [a]	413566	9.20	582370	10.07	252226	13.33	323794	15.89	88924	6.77
Lower Limit [b]	103392	8.20	145593	9.07	63057	12.33	80949	14.89	22231	5.77
Lab Sample ID	IS I AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	1S 4 AREA	RT	IS 5 AREA	RT
MSH2003-BS	203004	8.70	289060	9.57	126211	12.83	157390	15.39	42479	6.27
MSH2003-MB	185208	8.70	256543	9.57	106576	12.83	131041	15.40	37759	6.28
ZZZZZZ	175579	8.70	238634	9.57	98939	12.83	119034	15.40	33288	6.28
MC19724-5	170754	8.71	242923	9.57	99220	12.83	116397	15.40	33677	6.28
ZZZZZZ	166781	8.70	223337	9.57	93100	12.83	110339	15.40	32563	6.28
ZZZZZZ	160052	8.70	218085	9.57	91698	12.83	107539	15.40	32094	6.28
MC19699-9	157989	8.70	221754	9.57	90785	12.83	105387	15.40	31997	6.28
ZZZZZZ	153724	8.70	227919	9.57	89980	12.83	103593	15.40	30062	6.28
ZZZZZZ	146820	8.70	219312	9.57	86661	12.83	106900	15.40	29882	6.28
ZZZZZZ	147805	8.70	217597	9.57	83992	12.83	100017	15.40	29869	6.28
MC19724-5MS	155200	8.70	223290	9.57	99688	12.83	129664	15.40	31592	6.28
MC19724-5MSD	160947	8.70	231883	9.57	102713	12.83	131329	15.40	33485	6.27
ZZZZZZ	173898	8.70	274570	9.58	108576	12.83	145369	15.39	50776	6.27
ZZZZZZ	189758	8.70	276843	9.57	107192	12.83	124341	15.40	39096	6.28
ZZZZZZ	182820	8.70	265614	9.57	102353	12.83	121131	15.40	38433	6.28
ZZZZZZ	169881	8.70	247855	9.57	98504	12.83	118643	15.40	35469	6.29
ZZZZZZ	173367	8.70	261889	9.57	102412	12.83	119898	15.40	35840	6.28
ZZZZZZ	164653	8.70	236286	9.57	94868	12.83	113340	15.40	32071	6.27
ZZZZZZ	157482	8.70	215491	9.57	92249	12.83	108515	15.40	31989	6.28
ZZZZZZ	158349	8.70	214989	9.57	89560	12.83	105992	15.40	32530	6.28

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2005-CC1993	Injection Date:	04/22/13
Lab File ID:	H60638.D	Injection Time:	08:42
Instrument ID:	GCMSH	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	145518	8.70	203839	9.57	92365	12.82	122447	15.39	25920	6.27
Upper Limit [a]	291036	9.20	407678	10.07	184730	13.32	244894	15.89	51840	6.77
Lower Limit [b]	72759	8.20	101920	9.07	46183	12.32	61224	14.89	12960	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2005-BS	153131	8.70	210431	9.57	97000	12.82	124939	15.39	29597	6.27
MSH2005-MB	141357	8.70	190495	9.57	79390	12.83	97297	15.40	27529	6.28
ZZZZZZ	145372	8.70	194657	9.57	82893	12.82	97308	15.40	28465	6.27
ZZZZZZ	136877	8.70	185060	9.57	78268	12.83	93270	15.40	25790	6.28
ZZZZZZ	140480	8.70	184085	9.57	79168	12.83	102070	15.39	26872	6.28
MC19699-7	151215	8.70	205268	9.57	84612	12.83	112538	15.39	30302	6.28
ZZZZZZ	145544	8.70	190398	9.57	82699	12.83	96284	15.40	25141	6.28
ZZZZZZ	146421	8.70	207407	9.56	83715	12.83	105266	15.39	26809	6.27
ZZZZZZ	77186	8.70	103196	9.57	43628[c]	12.82	51114[c]	15.39	13455	6.28
ZZZZZZ	137069	8.70	186849	9.57	80208	12.83	101333	15.40	28083	6.28
ZZZZZZ	139308	8.70	192444	9.57	79270	12.83	94053	15.40	26423	6.28
MC19699-10	137830	8.70	187984	9.57	78530	12.83	94049	15.40	27423	6.28
ZZZZZZ	133472	8.70	185664	9.57	77724	12.83	92782	15.40	26452	6.27
MC19922-1MS	142688	8.70	195289	9.57	89389	12.82	119300	15.39	27185	6.27
MC19922-1MSD	147065	8.70	202105	9.57	90566	12.83	118534	15.39	27790	6.27
MC19922-I	145886	8.70	197741	9.57	83263	12.83	102309	15.39	29211	6.27
ZZZZZZ	141347	8.70	190076	9.57	79817	12.83	96540	15.39	27936	6.28
ZZZZZZ	134414	8.70	178829	9.57	75395	12.83	86839	15.40	25563	6.28
ZZZZZZ	135303	8.70	177608	9.57	77080	12.83	86755	15.40	26425	6.27
ZZZZZZ	133099	8.70	178493	9.57	76610	12.83	88204	15.40	27318	6.28

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 due to possible matrix interference. Confirmed by reanalysis.

Volatile Surrogate Recovery Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19699-1	H60530.D	89.0	98.0	112.0
MC19699-2	H60525.D	90.0	101.0	114.0
MC19699-3	H60531.D	90.0	101.0	112.0
MC19699-4	H60532.D	89.0	102.0	113.0
MC19699-5	H60526.D	91.0	101.0	111.0
MC19699-7	H60647.D	88.0	100.0	111.0
MC19699-8	H60533.D	89.0	99.0	113.0
MC19699-9	H60537.D	86.0	91.0	108.0
MC19699-9	H60585.D	89.0	99.0	114.0
MC19699-10	H60654.D	89.0	101.0	111.0
MC19699-10	H60534.D	88.0	93.0	112.0
MC19699-11	H60527.D	90.0	101.0	113.0
MC19699-4MS	H60535.D	94.0	99.0	106.0
MC19699-4MSD	H60536.D	94.0	101.0	106.0
MC19724-5MS	H60589.D	98.0	99.0	105.0
MC19724-5MSD	H60590.D	96.0	99.0	107.0
MC19922-1MS	H60656.D	93.0	102.0	105.0
MC19922-1MSD	H60657.D	96.0	99.0	105.0
MSH2001-BS	H60521.D	97.0	102.0	107.0
MSH2001-MB	H60524.D	89.0	104.0	114.0
MSH2003-BS	H60577.D	93.0	100.0	107.0
MSH2003-MB	H60579.D	86.0	102.0	109.0
MSH2005-BS	H60639.D	94.0	101.0	104.0
MSH2005-MB	H60642.D	89.0	103.0	113.0

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MB	U13643.D	1	04/16/13	NS	04/15/13	OP32661	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MB	U13643.D	1	04/16/13	NS	04/15/13	OP32661	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		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	78%	30-130%
321-60-8	2-Fluorobiphenyl	78%	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32678-MB	W11306.D	1	04/19/13	KR	04/16/13	OP32678	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-10

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Beuzoic Acid	ND	10	1.3	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	his(2-Chloroethyl)ether	ND	5.0	0.23	ng/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ng/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ng/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofnran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ng/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ng/l	

Method Blank Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32678-MB	W11306.D	1	04/19/13	KR	04/16/13	OP32678	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-10

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	30%	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	63%	30-130%
321-60-8	2-Fluorobiphenyl	59%	30-130%
1718-51-0	Terphenyl-d14	85%	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32662-MB	182661.D	1	04/17/13	NS	04/15/13	OP32662	MS13073

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

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-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	76%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

Method Blank Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32679-MB	I82690.D	1	04/18/13	NS	04/16/13	OP32679	MSI3074

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19699-10

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	27%	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	57%	30-130%
321-60-8	2-Fluorobiphenyl	52%	30-130%
1718-51-0	Terphenyl-d14	70%	30-130%

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-BS	U13644.D	1	04/16/13	NS	04/15/13	OP32661	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	35.6	36	30-130
95-57-8	2-Chlorophenol	100	97.4	97	30-130
59-50-7	4-Chloro-3-methyl phenol	100	111	111	30-130
120-83-2	2,4-Dichlorophenol	100	113	113	30-130
105-67-9	2,4-Dimethylphenol	100	109	109	30-130
51-28-5	2,4-Dinitrophenol	100	149	149* a	30-130
534-52-1	4,6-Dinitro-o-cresol	100	136	136* a	30-130
95-48-7	2-Methylphenol	100	85.3	85	30-130
	3&4-Methylphenol	200	170	85	30-130
88-75-5	2-Nitrophenol	100	111	111	30-130
100-02-7	4-Nitrophenol	100	41.2	41	30-130
87-86-5	Pentachlorophenol	100	106	106	30-130
108-95-2	Phenol	100	43.2	43	30-130
95-95-4	2,4,5-Trichlorophenol	100	114	114	30-130
88-06-2	2,4,6-Trichlorophenol	100	112	112	30-130
62-53-3	Aniline	50	22.6	45	40-140
101-55-3	4-Bromophenyl phenyl ether	50	44.0	88	40-140
85-68-7	Butyl benzyl phthalate	50	32.5	65	40-140
100-51-6	Benzyl Alcohol	50	38.2	76	40-140
91-58-7	2-Chloronaphthalene	100	70.6	71	40-140
106-47-8	4-Chloroaniline	50	35.5	71	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	43.3	87	40-140
111-44-4	bis(2-Chloroethyl)ether	50	68.4	137	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	46.8	94	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	43.6	87	40-140
122-66-7	1,2-Diphenylhydrazine	50	42.0	84	40-140
121-14-2	2,4-Dinitrotoluene	100	85.3	85	40-140
606-20-2	2,6-Dinitrotoluene	100	78.1	78	40-140
91-94-1	3,3'-Dichlorobenzidine	50	5.7	11* b	40-140
132-64-9	Dibenzofuran	50	42.5	85	40-140
84-74-2	Di-n-butyl phthalate	50	39.1	78	40-140
117-84-0	Di-n-octyl phthalate	50	49.0	98	40-140
84-66-2	Diethyl phthalate	50	41.5	83	40-140
131-11-3	Dimethyl phthalate	50	15.2	30* b	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	45.0	90	40-140
118-74-1	Hexachlorobenzene	100	84.4	84	40-140

* = Outside of Control Limits.

7.2.1

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Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-BS	U13644.D	1	04/16/13	NS	04/15/13	OP3266I	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	100	39.6	40	40-140
67-72-1	Hexachloroethane	100	57.4	57	40-140
78-59-1	Isophorone	100	83.2	83	40-140
88-74-4	2-Nitroaniline	50	44.0	88	40-140
99-09-2	3-Nitroaniline	50	35.0	70	40-140
100-01-6	4-Nitroaniline	50	40.4	81	40-140
98-95-3	Nitrobenzene	100	80.9	81	40-140
62-75-9	n-Nitrosodimethylamine	50	26.8	54	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	42.5	85	40-140
86-30-6	N-Nitrosodiphenylamine	50	42.7	85	40-140
110-86-1	Pyridine	50	20.5	41	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	48%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Trihromophenol	90%	15-110%
4165-60-0	Nitrobenzene-d5	86%	30-130%
321-60-8	2-Fluorobiphenyl	83%	30-130%
1718-51-0	Terphenyl-d14	86%	30-130%

(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.

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32678-BS	W11307.D	1	04/19/13	KR	04/16/13	OP32678	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	42.7	43	30-130
95-57-8	2-Chlorophenol	100	79.3	79	30-130
59-50-7	4-Chloro-3-methyl phenol	100	91.3	91	30-130
120-83-2	2,4-Dichlorophenol	100	94.7	95	30-130
105-67-9	2,4-Dimethylphenol	100	72.7	73	30-130
51-28-5	2,4-Dinitrophenol	100	99.8	100	30-130
534-52-1	4,6-Dinitro-o-cresol	100	103	103	30-130
95-48-7	2-Methylphenol	100	73.6	74	30-130
	3&4-Methylphenol	200	134	67	30-130
88-75-5	2-Nitrophenol	100	95.8	96	30-130
100-02-7	4-Nitrophenol	100	54.6	55	30-130
87-86-5	Pentachlorophenol	100	110	110	30-130
108-95-2	Phenol	100	39.8	40	30-130
95-95-4	2,4,5-Trichlorophenol	100	103	103	30-130
88-06-2	2,4,6-Trichlorophenol	100	102	102	30-130
62-53-3	Aniline	50	18.2	36* a	40-140
101-55-3	4-Bromophenyl phenyl ether	50	38.9	78	40-140
85-68-7	Butyl benzyl phthalate	50	20.4	41	40-140
100-51-6	Benzyl Alcohol	50	33.7	67	40-140
91-58-7	2-Chloronaphthalene	50	35.8	72	40-140
106-47-8	4-Chloroaniline	50	30.7	61	40-140
111-91-1	bis(2-Chloroethoxy)metbane	50	36.9	74	40-140
111-44-4	bis(2-Chloroethyl)ether	50	38.2	76	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	38.0	76	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	37.9	76	40-140
122-66-7	1,2-Diphenylhydrazine	50	41.3	83	40-140
121-14-2	2,4-Dinitrotoluene	50	42.4	85	40-140
606-20-2	2,6-Dinitrotoluene	50	40.8	82	40-140
91-94-1	3,3'-Dichlorobenzidine	50	4.4	9* a	40-140
132-64-9	Dibenzofuran	50	37.1	74	40-140
84-74-2	Di-n-butyl phthalate	50	30.6	61	40-140
117-84-0	Di-n-octyl phthalate	50	47.8	96	40-140
84-66-2	Diethyl phthalate	50	19.7	39* a	40-140
131-11-3	Dimethyl phthalate	50	3.8	8* a	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	44.6	89	40-140
118-74-1	Hexachlorobenzene	50	39.6	79	40-140

* = Outside of Control Limits.

7.2.2

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Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32678-BS	W11307.D	1	04/19/13	KR	04/16/13	OP32678	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	12.8	26* a	40-140
67-72-1	Hexachloroethane	50	24.5	49	40-140
78-59-1	Isophorone	50	40.8	82	40-140
88-74-4	2-Nitroaniline	50	41.9	84	40-140
99-09-2	3-Nitroaniline	50	33.8	68	40-140
100-01-6	4-Nitroaniline	50	35.8	72	40-140
98-95-3	Nitrobenzene	50	35.9	72	40-140
62-75-9	n-Nitrosodimethylamine	50	22.3	45	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	37.3	75	40-140
86-30-6	N-Nitrosodiphenylamine	50	41.5	83	40-140
110-86-1	Pyridine	50	18.7	37* a	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	80%	15-110%
4165-60-0	Nitrobenzene-d5	76%	30-130%
321-60-8	2-Fluorobiphenyl	78%	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32662-BS	182662.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	40.1	80	40-140
208-96-8	Acenaphthylene	50	31.9	64	40-140
120-12-7	Anthracene	50	41.7	83	40-140
56-55-3	Benzo(a)anthracene	50	43.4	87	40-140
50-32-8	Benzo(a)pyrene	50	38.4	77	40-140
205-99-2	Benzo(b)fluoranthene	50	42.2	84	40-140
191-24-2	Benzo(g,h,i)perylene	50	47.6	95	40-140
207-08-9	Benzo(k)fluoranthene	50	42.5	85	40-140
218-01-9	Chrysene	50	41.5	83	40-140
53-70-3	Dibenzo(a,h)anthracene	50	42.0	84	40-140
206-44-0	Fluoranthene	50	43.2	86	40-140
86-73-7	Fluorene	50	37.7	75	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.2	82	40-140
90-12-0	1-Methylnaphthalene	50	38.5	77	40-140
91-57-6	2-Methylnaphthalene	50	37.0	74	40-140
85-01-8	Phenanthrene	50	41.8	84	40-140
129-00-0	Pyrene	50	42.8	86	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	83%	30-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32679-BS	I82691.D	1	04/18/13	NS	04/16/13	OP32679	MSI3074

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19699-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	35.4	71	40-140
208-96-8	Acenaphthylene	50	28.2	56	40-140
120-12-7	Anthracene	50	37.6	75	40-140
56-55-3	Benzo(a)anthracene	50	40.2	80	40-140
50-32-8	Benzo(a)pyrene	50	35.4	71	40-140
205-99-2	Benzo(b)fluoranthene	50	39.6	79	40-140
191-24-2	Benzo(g,h,i)perylene	50	44.5	89	40-140
207-08-9	Benzo(k)fluoranthene	50	39.3	79	40-140
218-01-9	Chrysene	50	38.9	78	40-140
53-70-3	Dibenzo(a,h)anthracene	50	39.0	78	40-140
206-44-0	Fluoranthene	50	39.6	79	40-140
86-73-7	Fluorene	50	34.4	69	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	38.5	77	40-140
90-12-0	1-Methylnaphthalene	50	32.3	65	40-140
91-57-6	2-Methylnaphthalene	50	31.3	63	40-140
85-01-8	Phenanthrene	50	37.9	76	40-140
129-00-0	Pyrene	50	39.6	79	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	36%	15-110%
4165-62-2	Phenol-d5	26%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	15-110%
4165-60-0	Nitrobenzene-d5	68%	30-130%
321-60-8	2-Fluorobiphenyl	64%	30-130%
1718-51-0	Terphenyl-d14	77%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MS	U13645.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
OP32661-MSD	U13646.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
MC19724-5	U13718.D	1	04/19/13	NS	04/15/13	OP32661	MSU694

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

CAS No.	Compound	MC19724-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		111	59.9	54	62.5	56	4	30-130/20
95-57-8	2-Chlorophenol	ND		111	110	99	105	95	5	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		111	130	117	126	113	3	30-130/20
120-83-2	2,4-Dichlorophenol	ND		111	128	115	125	113	2	30-130/20
105-67-9	2,4-Dimethylphenol	ND		111	124	112	113	102	9	30-130/20
51-28-5	2,4-Dinitrophenol	ND		111	173	156* [a]	170	153* [a]	2	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		111	155	140* [a]	158	142* [a]	2	30-130/20
95-48-7	2-Methylphenol	ND		111	110	99	96.9	87	13	30-130/20
	3&4-Methylphenol	ND		111	224	112	193	87	15	30-130/20
88-75-5	2-Nitrophenol	ND		111	125	113	126	113	1	30-130/20
100-02-7	4-Nitrophenol	ND		111	54.1	49	51.3	46	5	30-130/20
87-86-5	Pentachlorophenol	ND		111	124	112	111	100	11	30-130/20
108-95-2	Phenol	ND		111	63.6	57	49.7	45	25* [b]	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		111	130	117	134	121	3	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		111	129	116	127	114	2	30-130/20
62-53-3	Aniline	ND		55.6	22.0	40	21.2	38* [c]	4	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		55.6	45.5	82	44.5	80	2	40-140/20
85-68-7	Butyl benzyl phthalate	ND		55.6	48.0	86	46.0	83	4	40-140/20
100-51-6	Benzyl Alcohol	ND		55.6	37.3	67	34.6	62	8	40-140/20
91-58-7	2-Chloronaphthalene	ND		111	77.4	70	77.3	70	0	40-140/20
106-47-8	4-Chloroaniline	ND		55.6	35.4	64	35.2	63	1	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		55.6	46.8	84	44.8	81	4	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		55.6	76.4	138	70.4	127	8	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		55.6	48.6	87	46.6	84	4	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		55.6	45.8	82	44.7	80	2	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		55.6	43.9	79	45.8	82	4	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		111	92.2	83	92.9	84	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		111	84.5	76	83.4	75	1	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		55.6	5.5	10* [c]	5.5	10* [c]	0	40-140/20
132-64-9	Dibenzofuran	ND		55.6	45.1	81	45.3	82	0	40-140/20
84-74-2	Di-n-hutyl phthalate	ND		55.6	44.3	80	46.1	83	4	40-140/20
117-84-0	Di-n-octyl phthalate	ND		55.6	46.7	84	46.2	83	1	40-140/20
84-66-2	Diethyl phthalate	ND		55.6	47.3	85	48.4	87	2	40-140/20
131-11-3	Dimethyl phthalate	ND		55.6	46.4	84	41.5	75	11	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		55.6	43.8	79	43.7	79	0	40-140/20
118-74-1	Hexachlorobenzene	ND		111	87.1	78	87.6	79	1	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MS	U13645.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
OP32661-MSD	U13646.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
MC19724-5	U13718.D	1	04/19/13	NS	04/15/13	OP32661	MSU694

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

CAS No.	Compound	MC19724-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		111	47.5	43	40.2	36* c	17	40-140/20
67-72-1	Hexachloroethane	ND		111	65.0	59	60.8	55	7	40-140/20
78-59-1	Isophorone	ND		111	91.4	82	91.4	82	0	40-140/20
88-74-4	2-Nitroaniline	ND		55.6	48.6	87	46.4	84	5	40-140/20
99-09-2	3-Nitroaniline	ND		55.6	38.4	69	38.8	70	1	40-140/20
100-01-6	4-Nitroaniline	ND		55.6	43.2	78	41.9	75	3	40-140/20
98-95-3	Nitrobenzene	ND		111	89.7	81	87.3	79	3	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		55.6	30.2	54	27.9	50	8	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		55.6	43.9	79	43.3	78	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		55.6	43.6	78	45.3	82	4	40-140/20
110-86-1	Pyridine	ND		55.6	21.5	39* c	21.0	38* c	2	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
367-12-4	2-Fluorophenol	48%	45%	40%	15-110%
4165-62-2	Phenol-d5	43%	33%	29%	15-110%
118-79-6	2,4,6-Tribromophenol	85%	86%	80%	15-110%
4165-60-0	Nitrobenzene-d5	81%	78%	75%	30-130%
321-60-8	2-Fluorobiphenyl	78%	76%	72%	30-130%
1718-51-0	Terphenyl-d14	71%	71%	69%	30-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.
(c) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32678-MS	W11308.D	1	04/19/13	KR	04/16/13	OP32678	MSW528
OP32678-MSD	W11309.D	1	04/19/13	KR	04/16/13	OP32678	MSW528
MC19700-23	W11310.D	1	04/19/13	KR	04/16/13	OP32678	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-10

CAS No.	Compound	MC19700-23 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	38.0	38	37.1	37	2	30-130/20
95-57-8	2-Chlorophenol	ND		100	75.3	75	67.9	68	10	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	82.8	83	78.7	79	5	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	85.6	86	78.4	78	9	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	67.7	68	61.9	62	9	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	97.2	97	100	100	3	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	101	101	104	104	3	30-130/20
95-48-7	2-Methylphenol	ND		100	68.3	68	62.9	63	8	30-130/20
	3&4-Methylphenol	ND		200	125	63	113	57	10	30-130/20
88-75-5	2-Nitrophenol	ND		100	88.8	89	80.9	81	9	30-130/20
100-02-7	4-Nitrophenol	ND		100	51.9	52	52.9	53	2	30-130/20
87-86-5	Pentachlorophenol	ND		100	107	107	110	110	3	30-130/20
108-95-2	Phenol	3.7	J	100	36.9	33	34.2	31	8	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	92.5	93	88.9	89	4	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	91.0	91	87.2	87	4	30-130/20
62-53-3	Aniline	ND		50	16.8	34* [a]	15.5	31* [a]	8	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	35.4	71	36.0	72	2	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	19.2	38* [b]	17.0	34* [b]	12	40-140/20
100-51-6	Benzyl Alcohol	ND		50	26.2	52	25.6	51	2	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	32.6	65	30.3	61	7	40-140/20
106-47-8	4-Chloroaniline	ND		50	27.5	55	25.7	51	7	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	33.1	66	30.6	61	8	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	35.8	72	32.8	66	9	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	35.7	71	32.6	65	9	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	34.1	68	34.0	68	0	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	38.2	76	38.6	77	1	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	39.4	79	40.1	80	2	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	36.8	74	37.1	74	1	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	4.8	10* [a]	4.9	10* [a]	2	40-140/20
132-64-9	Dibenzofuran	ND		50	33.5	67	32.7	65	2	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	29.4	59	28.0	56	5	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	43.3	87	43.2	86	0	40-140/20
84-66-2	Diethyl phthalate	ND		50	19.1	38* [a]	17.3	35* [a]	10	40-140/20
131-11-3	Dimethyl phthalate	ND		50	4.1	8* [a]	2.8	6* [a]	38* [a]	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	40.3	81	40.8	82	1	40-140/20
118-74-1	Hexachlorobenzene	ND		50	36.3	73	36.9	74	2	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32678-MS	W11308.D	1	04/19/13	KR	04/16/13	OP32678	MSW528
OP32678-MSD	W11309.D	1	04/19/13	KR	04/16/13	OP32678	MSW528
MC19700-23	W11310.D	1	04/19/13	KR	04/16/13	OP32678	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19699-10

CAS No.	Compound	MC19700-23 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	12.3	25* [a]	11.7	23* [a]	5	40-140/20
67-72-1	Hexachloroethane	ND		50	24.7	49	23.0	46	7	40-140/20
78-59-1	Isophorone	ND		50	36.1	72	34.5	69	5	40-140/20
88-74-4	2-Nitroaniline	ND		50	37.1	74	37.5	75	1	40-140/20
99-09-2	3-Nitroaniline	ND		50	31.9	64	32.8	66	3	40-140/20
100-01-6	4-Nitroaniline	ND		50	34.2	68	35.6	71	4	40-140/20
98-95-3	Nitrobenzene	ND		50	33.4	67	30.1	60	10	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	20.4	41	18.8	38* [b]	8	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	33.9	68	31.4	63	8	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	38.4	77	39.1	78	2	40-140/20
110-86-1	Pyridine	ND		50	17.0	34* [a]	16.8	34* [a]	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19700-23	Limits
367-12-4	2-Fluorophenol	38%	34%	37%	15-110%
4165-62-2	Phenol-d5	27%	25%	27%	15-110%
118-79-6	2,4,6-Tribromophenol	75%	75%	71%	15-110%
4165-60-0	Nitrobenzene-d5	69%	66%	80%	30-130%
321-60-8	2-Fluorobiphenyl	70%	66%	75%	30-130%
1718-51-0	Terphenyl-d14	86%	88%	91%	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32662-MS	I82663.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
OP32662-MSD	I82664.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
MC19724-5	I82672.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-7, MC19699-8, MC19699-9

CAS No.	Compound	MC19724-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		55.6	42.1	76	42.4	76	1	40-140/20
208-96-8	Acenaphthylene	ND		55.6	33.7	61	33.8	61	0	40-140/20
120-12-7	Anthracene	ND		55.6	43.9	79	43.9	79	0	40-140/20
56-55-3	Benzo(a)anthracene	ND		55.6	43.1	78	41.0	74	5	40-140/20
50-32-8	Benzo(a)pyrene	ND		55.6	37.8	68	36.2	65	4	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		55.6	39.7	71	37.9	68	5	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		55.6	47.0	85	45.0	81	4	40-140/20
207-08-9	Benzo(k)flnoranthene	ND		55.6	44.1	79	42.7	77	3	40-140/20
218-01-9	Chrysene	ND		55.6	41.1	74	39.3	71	4	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		55.6	41.6	75	40.1	72	4	40-140/20
206-44-0	Fluoranthene	ND		55.6	44.4	80	43.5	78	2	40-140/20
86-73-7	Fluorene	ND		55.6	39.8	72	40.3	73	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		55.6	41.0	74	39.4	71	4	40-140/20
90-12-0	1-Methylnaphthalene	ND		55.6	41.2	74	40.4	73	2	40-140/20
91-57-6	2-Methylnaphthalene	ND		55.6	40.3	73	39.0	70	3	40-140/20
85-01-8	Phenanthrene	ND		55.6	44.2	80	44.4	80	0	40-140/20
129-00-0	Pyrene	ND		55.6	43.9	79	42.8	77	3	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
4165-60-0	Nitrobenzene-d5	79%	75%	71%	30-130%
321-60-8	2-Flnorobiphenyl	72%	69%	70%	30-130%
1718-51-0	Terphenyl-d14	71%	69%	70%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32679-MS	I82692.D	1	04/18/13	NS	04/16/13	OP32679	MSI3074
OP32679-MSD	I82693.D	1	04/18/13	NS	04/16/13	OP32679	MSI3074
MC19700-24	I82694.D	1	04/18/13	NS	04/16/13	OP32679	MSI3074

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19699-10

CAS No.	Compound	MC19700-24 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	31.6	63	31.0	62	2	40-140/20
208-96-8	Acenaphthylene	ND		50	25.1	50	24.6	49	2	40-140/20
120-12-7	Anthracene	ND		50	35.4	71	35.7	71	1	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	38.2	76	38.0	76	1	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	32.7	65	33.0	66	1	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	35.3	71	35.4	71	0	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	41.0	82	41.2	82	0	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	38.3	77	38.4	77	0	40-140/20
218-01-9	Chrysene	ND		50	36.3	73	36.3	73	0	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	35.6	71	35.8	72	1	40-140/20
206-44-0	Fluoranthene	ND		50	37.7	75	37.7	75	0	40-140/20
86-73-7	Fluorene	ND		50	31.1	62	30.7	61	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	35.5	71	35.5	71	0	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	30.1	60	28.0	56	7	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	28.9	58	27.0	54	7	40-140/20
85-01-8	Phenanthrene	ND		50	35.3	71	36.2	72	3	40-140/20
129-00-0	Pyrene	ND		50	37.7	75	37.5	75	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19700-24 Limits	
367-12-4	2-Fluorophenol	33%	30%	33%	15-110%
4165-62-2	Phenol-d5	23%	21%	25%	15-110%
118-79-6	2,4,6-Tribromophenol	67%	67%	62%	15-110%
4165-60-0	Nitrobenzene-d5	62%	58%	70%	30-130%
321-60-8	2-Fluorobiphenyl	58%	55%	65%	30-130%
1718-51-0	Terphenyl-d14	71%	72%	74%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3073-CC3044	Injection Date:	04/17/13
Lab File ID:	182650.D	Injection Time:	11:14
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	161691	3.38	403297	4.35	212742	5.75	395919	6.98	312782	9.71	595569	11.10
Upper Limit [a]	323382	3.88	806594	4.85	425484	6.25	791838	7.48	625564	10.21	1191138	11.60
Lower Limit [b]	80846	2.88	201649	3.85	106371	5.25	197960	6.48	156391	9.21	297785	10.60
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	160010	3.38	400853	4.35	198393	5.74	352459	6.98	289010	9.70	563391	11.10
ZZZZZZ	161140	3.38	410909	4.35	205325	5.75	355306	6.98	289435	9.70	579053	11.10
ZZZZZZ	143875	3.38	360086	4.35	182299	5.74	313021	6.98	254154	9.70	511088	11.10
ZZZZZZ	153897	3.38	384039	4.35	190079	5.74	330733	6.98	265844	9.70	539459	11.10
ZZZZZZ	183846	3.38	462997	4.35	229299	5.75	395405	6.98	321054	9.70	625017	11.10
ZZZZZZ	180808	3.38	454862	4.35	224413	5.75	383919	6.98	310479	9.71	611222	11.10
ZZZZZZ	174676	3.38	442617	4.35	221227	5.74	374801	6.98	306217	9.70	604830	11.10
ZZZZZZ	178743	3.38	456297	4.35	225767	5.75	388827	6.98	322372	9.71	638290	11.10
ZZZZZZ	167563	3.38	422715	4.35	209636	5.75	364355	6.98	294498	9.71	594571	11.10
ZZZZZZ	169246	3.38	436104	4.35	217295	5.75	380575	6.98	305190	9.70	596562	11.10
OP32662-MB	138394	3.38	356731	4.35	181532	5.74	320617	6.98	257712	9.70	507428	11.10
OP32662-BS	134106	3.38	343680	4.35	174040	5.75	311263	6.99	241069	9.71	471892	11.10
OP32662-MS	143514	3.38	361285	4.35	184172	5.75	325840	6.99	254321	9.71	501119	11.10
OP32662-MSD	138315	3.39	352582	4.35	177424	5.75	315624	6.99	237211	9.71	468515	11.10
MC19699-1	153647	3.38	390060	4.35	196096	5.75	334665	6.98	269649	9.70	523763	11.10
MC19699-2	145657	3.38	364738	4.35	186238	5.74	319731	6.98	260071	9.71	519633	11.10
MC19699-3	139969	3.38	363956	4.35	179249	5.74	314893	6.98	254272	9.70	509762	11.10
MC19699-4	139674	3.38	360541	4.35	181023	5.74	315843	6.98	248342	9.70	497651	11.10
MC19699-7	128652	3.39	326386	4.35	169502	5.74	306694	6.98	251024	9.70	492438	11.10
MC19699-8	138100	3.38	353628	4.35	177568	5.75	313001	6.98	252231	9.70	502923	11.10
MC19699-9	132264	3.38	335882	4.35	169221	5.74	299907	6.98	244456	9.70	481518	11.10
MC19724-5	135413	3.38	354836	4.35	179686	5.74	313578	6.98	252009	9.70	487416	11.10
ZZZZZZ	124258	3.38	321569	4.35	163812	5.75	292375	6.98	237448	9.70	458461	11.10
ZZZZZZ	139500	3.38	357182	4.35	178648	5.75	312774	6.98	252452	9.70	493423	11.10
ZZZZZZ	111704	3.38	287193	4.35	145323	5.74	260957	6.98	212249	9.70	417710	11.09
ZZZZZZ	131553	3.38	333743	4.35	172494	5.75	311578	6.98	248770	9.70	488876	11.10
ZZZZZZ	130612	3.38	333835	4.35	168927	5.74	290183	6.98	235554	9.70	459422	11.09

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3073-CC3044	Injection Date:	04/17/13
Lab File ID:	I82650.D	Injection Time:	11:14
Instrument ID:	GCMSI	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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3074-CC3044	Injection Date:	04/18/13
Lab File ID:	182689.D	Injection Time:	15:28
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	195874	3.39	485949	4.35	254079	5.75	464060	6.99	374645	9.71	704818	11.10
Upper Limit [a]	391748	3.89	971898	4.85	508158	6.25	928120	7.49	749290	10.21	1409636	11.60
Lower Limit [b]	97937	2.89	242975	3.85	127040	5.25	232030	6.49	187323	9.21	352409	10.60
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
OP32679-MB	162265	3.39	406150	4.35	208081	5.74	357167	6.98	296133	9.70	567965	11.10
OP32679-BS	150271	3.39	382569	4.35	196276	5.75	353577	6.99	281992	9.71	546299	11.10
OP32679-MS	153706	3.39	387239	4.35	199213	5.75	353527	6.99	283150	9.71	545478	11.10
OP32679-MSD	148030	3.39	372881	4.35	191790	5.75	340882	6.99	268548	9.71	522645	11.10
MC19700-24	155807	3.39	387702	4.35	199391	5.74	349032	6.98	286268	9.70	553816	11.10
MC19699-10	146233	3.39	367356	4.35	185259	5.74	324659	6.98	262834	9.70	525497	11.10
ZZZZZZ	152832	3.39	380916	4.35	194091	5.75	336205	6.98	274192	9.70	545850	11.10
ZZZZZZ	144212	3.39	363210	4.35	184694	5.74	321223	6.98	262319	9.70	511163	11.10
ZZZZZZ	153199	3.39	382182	4.35	193822	5.74	337468	6.98	271385	9.70	531383	11.10
ZZZZZZ	152332	3.39	377928	4.35	192147	5.75	338365	6.98	277229	9.71	549863	11.10
ZZZZZZ	152076	3.39	377076	4.35	188043	5.75	323409	6.98	262906	9.70	530002	11.10
ZZZZZZ	161387	3.38	400115	4.35	202665	5.74	349455	6.98	282192	9.70	547633	11.09
ZZZZZZ	151240	3.39	364383	4.35	187206	5.74	328898	6.98	267938	9.70	521195	11.09
ZZZZZZ	154926	3.39	381224	4.35	194832	5.74	338908	6.98	282979	9.70	549687	11.10
ZZZZZZ	153890	3.39	379800	4.35	193422	5.74	338044	6.98	276263	9.70	533597	11.09
ZZZZZZ	150074	3.39	377089	4.35	194187	5.74	338867	6.98	280784	9.70	539242	11.10
ZZZZZZ	155339	3.39	388596	4.35	196983	5.74	344219	6.98	278375	9.70	533716	11.09
ZZZZZZ	154274	3.39	387828	4.35	197366	5.74	343961	6.98	275255	9.70	537744	11.09
ZZZZZZ	147921	3.39	368360	4.35	185635	5.75	325798	6.98	268386	9.70	522213	11.10
ZZZZZZ	147679	3.39	366213	4.35	187212	5.74	322591	6.98	268500	9.70	520660	11.09
ZZZZZZ	157096	3.39	385977	4.35	199474	5.75	341358	6.98	280770	9.70	536468	11.10
ZZZZZZ	165116	3.39	418818	4.35	213672	5.74	370974	6.98	300540	9.70	572372	11.10

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU690-CC623	Injection Date:	04/16/13
Lab File ID:	U13627.D	Injection Time:	10:15
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	104684	2.89	383260	3.85	232726	5.24	407038	6.44	418753	9.11	362458	10.63
Upper Limit [a]	209368	3.39	766520	4.35	465452	5.74	814076	6.94	837506	9.61	724916	11.13
Lower Limit [b]	52342	2.39	191630	3.35	116363	4.74	203519	5.94	209377	8.61	181229	10.13
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	81914	2.88	302531	3.84	184193	5.24	308442	6.43	321294	9.10	284036	10.62
ZZZZZZ	107110	2.88	398632	3.84	245578	5.24	407771	6.43	433519	9.10	375003	10.62
ZZZZZZ	72927	2.88	275962	3.84	167226	5.24	280416	6.43	299133	9.10	268621	10.62
ZZZZZZ	84487	2.88	315393	3.84	191111	5.24	329911	6.43	360759	9.10	324313	10.62
ZZZZZZ	84661	2.88	314759	3.84	190950	5.24	327018	6.43	361834	9.10	330512	10.62
ZZZZZZ	120112	2.88	443235	3.84	272489	5.24	471707	6.43	512453	9.10	472619	10.62
OP32553-MB	112897	2.88	417387	3.84	250323	5.24	432034	6.43	481840	9.10	418662	10.62
OP32553-BS	101154	2.88	364694	3.84	219826	5.24	391319	6.43	435585	9.10	391626	10.62
OP32553-MS	99026	2.88	345569	3.84	213472	5.24	382536	6.43	421357	9.10	387666	10.62
OP32553-MSD	120103	2.88	427738	3.84	262603	5.24	469526	6.43	522907	9.10	486768	10.63
MC19626-1	119849	2.88	443143	3.84	270152	5.24	467822	6.43	503444	9.10	470852	10.62
ZZZZZZ	101513	2.88	363693	3.84	219927	5.24	384081	6.43	425006	9.10	402986	10.63
ZZZZZZ	104982	2.88	377711	3.84	232696	5.24	402385	6.43	458095	9.10	429502	10.63
ZZZZZZ	97409	2.88	353565	3.84	219103	5.24	397218	6.43	443762	9.10	402828	10.63
OP32661-MB	85496	2.88	315755	3.84	191079	5.24	336981	6.43	378197	9.10	352099	10.62
OP32661-BS	95372	2.88	340933	3.85	213920	5.24	383611	6.43	431428	9.10	404922	10.63
OP32661-MS	92781	2.88	332409	3.85	205634	5.24	371214	6.43	414716	9.10	392412	10.63
OP32661-MSD	74566	2.88	262447	3.84	165063	5.24	293092	6.43	329863	9.10	310464	10.63
MC19699-1	103185	2.88	377644	3.84	230769	5.24	414151	6.43	464790	9.10	443436	10.63
MC19699-2	82416	2.88	304440	3.84	186500	5.24	331934	6.43	363899	9.10	338521	10.62
MC19699-3	75685	2.88	279702	3.84	180251	5.24	305460	6.43	343683	9.10	320535	10.62
MC19699-4	77683	2.88	285883	3.84	179354	5.24	311130	6.43	347468	9.10	328132	10.62
MC19699-7	77906	2.88	285107	3.84	185394	5.24	327845	6.43	364471	9.10	343343	10.62
MC19699-8	100687	2.88	362876	3.84	230436	5.24	395518	6.43	461344	9.10	436247	10.63
MC19699-9	87974	2.88	316121	3.84	197925	5.24	343687	6.43	391288	9.10	366433	10.62

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU691-CC652	Injection Date:	04/16/13
Lab File ID:	U13627A.D	Injection Time:	10:15
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	104702	2.89	381426	3.85	232726	5.24	407038	6.44	418753	9.11	362458	10.63
Upper Limit [a]	209404	3.39	762852	4.35	465452	5.74	814076	6.94	837506	9.61	724916	11.13
Lower Limit [b]	52351	2.39	190713	3.35	116363	4.74	203519	5.94	209377	8.61	181229	10.13
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	81914	2.88	302531	3.84	184193	5.24	308442	6.43	321294	9.10	284036	10.62
ZZZZZZ	107110	2.88	398632	3.84	245578	5.24	407771	6.43	433519	9.10	375003	10.62
ZZZZZZ	72927	2.88	275962	3.84	167226	5.24	280416	6.43	299133	9.10	268621	10.62
ZZZZZZ	84487	2.88	315393	3.84	191111	5.24	329911	6.43	360759	9.10	324313	10.62
ZZZZZZ	84661	2.88	314759	3.84	190950	5.24	327018	6.43	361834	9.10	330512	10.62
ZZZZZZ	120112	2.88	443235	3.84	272489	5.24	471707	6.43	512453	9.10	472619	10.62
OP32553-MB	112897	2.88	417387	3.84	250323	5.24	432034	6.43	481840	9.10	418662	10.62
OP32553-BS	101154	2.88	364694	3.84	219826	5.24	391319	6.43	435585	9.10	391626	10.62
OP32553-MS	99026	2.88	345569	3.84	213472	5.24	382536	6.43	421357	9.10	387666	10.62
OP32553-MSD	120103	2.88	427738	3.84	262603	5.24	469526	6.43	522907	9.10	486768	10.63
MC19626-1	119849	2.88	443143	3.84	270152	5.24	467822	6.43	503444	9.10	470852	10.62
ZZZZZZ	101513	2.88	363693	3.84	219927	5.24	384081	6.43	425006	9.10	402986	10.63
ZZZZZZ	104982	2.88	377711	3.84	232696	5.24	402385	6.43	458095	9.10	429502	10.63
ZZZZZZ	97409	2.88	353565	3.84	219103	5.24	397218	6.43	443762	9.10	402828	10.63
OP32661-MB	85496	2.88	315755	3.84	191079	5.24	336981	6.43	378197	9.10	352099	10.62
OP32661-BS	95372	2.88	340933	3.85	213920	5.24	383611	6.43	431428	9.10	404922	10.63
OP32661-MS	92781	2.88	332409	3.85	205634	5.24	371214	6.43	414716	9.10	392412	10.63
OP32661-MSD	74566	2.88	262447	3.84	165063	5.24	293092	6.43	329863	9.10	310464	10.63
MC19699-1	103185	2.88	377644	3.84	230769	5.24	414151	6.43	464790	9.10	443436	10.63
MC19699-2	82416	2.88	304440	3.84	186500	5.24	331934	6.43	363899	9.10	338521	10.62
MC19699-3	75685	2.88	279702	3.84	180251	5.24	305460	6.43	343683	9.10	320535	10.62
MC19699-4	77683	2.88	285883	3.84	179354	5.24	311130	6.43	347468	9.10	328132	10.62
MC19699-7	77906	2.88	285107	3.84	185394	5.24	327845	6.43	364471	9.10	343343	10.62
MC19699-8	100687	2.88	362876	3.84	230436	5.24	395518	6.43	461344	9.10	436247	10.63
MC19699-9	87974	2.88	316121	3.84	197925	5.24	343687	6.43	391288	9.10	366433	10.62

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW528-CC505	Injection Date:	04/19/13
Lab File ID:	W11305.D	Injection Time:	08:08
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	118675	3.60	454103	4.58	306752	6.01	540627	7.29	695543	10.15	641220	11.72
Upper Limit [a]	237350	4.10	908206	5.08	613504	6.51	1081254	7.79	1391086	10.65	1282440	12.22
Lower Limit [b]	59338	3.10	227052	4.08	153376	5.51	270314	6.79	347772	9.65	320610	11.22
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
OP32678-MB	101415	3.59	389149	4.58	257625	6.00	471897	7.28	568474	10.14	554717	11.71
OP32678-BS	104425	3.59	392575	4.58	261156	6.00	462576	7.28	563044	10.14	549110	11.71
OP32678-MS	104803	3.59	399200	4.58	267163	6.00	470392	7.28	572487	10.14	559168	11.72
OP32678-MSD	100054	3.59	380220	4.58	254279	6.00	451262	7.28	555686	10.14	541883	11.72
MC19700-23	102037	3.59	383484	4.58	257244	6.00	463276	7.27	568024	10.14	543704	11.72
MC19699-10	100526	3.59	386824	4.58	251128	6.00	466239	7.28	547319	10.14	535753	11.71
ZZZZZZ	100056	3.59	376994	4.58	250142	6.00	451432	7.27	542220	10.14	527993	11.71
OP32692-MB	93072	3.59	358558	4.58	237521	6.00	439162	7.27	529447	10.14	506368	11.71
OP32692-BS	101936	3.59	395042	4.58	258022	6.00	459375	7.28	572642	10.14	548470	11.71
OP32692-MS	97555	3.59	375680	4.58	246651	6.00	440520	7.28	538247	10.14	520984	11.71
OP32692-MSD	99085	3.59	378708	4.58	252105	6.00	445237	7.28	544413	10.14	527613	11.71
MC19686-6	94285	3.59	361529	4.58	239473	6.00	433842	7.27	525730	10.14	508665	11.71
ZZZZZZ	96248	3.59	368979	4.58	246750	6.00	445318	7.27	533934	10.14	520052	11.71
ZZZZZZ	98682	3.59	375299	4.58	245275	6.00	454218	7.28	544996	10.14	526766	11.71
ZZZZZZ	97687	3.59	377597	4.58	249448	6.00	454663	7.27	540430	10.14	533628	11.71
ZZZZZZ	92896	3.59	354587	4.58	235594	6.00	426574	7.27	506987	10.14	502183	11.71
ZZZZZZ	93459	3.59	355322	4.58	234983	6.00	431960	7.27	514067	10.14	503570	11.71

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19699-1	U13647.D	22.0	16.0	67.0	66.0	65.0	69.0
MC19699-2	U13648.D	40.0	28.0	76.0	72.0	72.0	75.0
MC19699-3	U13649.D	14.0* [a]	15.0	53.0	72.0	66.0	55.0
MC19699-3	U13727.D	14.0* [a]	15.0	55.0	78.0	70.0	53.0
MC19699-4	U13650.D	28.0	24.0	70.0	65.0	61.0	48.0
MC19699-7	U13651.D	42.0	38.0	85.0	74.0	72.0	73.0
MC19699-8	U13652.D	36.0	28.0	85.0	75.0	70.0	75.0
MC19699-9	U13653.D	38.0	29.0	80.0	68.0	65.0	52.0
MC19699-10	W11311.D	36.0	33.0	75.0	75.0	67.0	60.0
OP32661-BS	U13644.D	48.0	33.0	90.0	86.0	83.0	86.0
OP32661-MB	U13643.D	42.0	30.0	84.0	78.0	78.0	80.0
OP32661-MS	U13645.D	48.0	43.0	85.0	81.0	78.0	71.0
OP32661-MSD	U13646.D	45.0	33.0	86.0	78.0	76.0	71.0
OP32678-BS	W11307.D	41.0	30.0	80.0	76.0	78.0	96.0
OP32678-MB	W11306.D	30.0	22.0	65.0	63.0	59.0	85.0
OP32678-MS	W11308.D	38.0	27.0	75.0	69.0	70.0	86.0
OP32678-MSD	W11309.D	34.0	25.0	75.0	66.0	66.0	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%

(a) Outside control limits due to possible matrix interfereuce. Confirmed by reanalysis.

Semivolatile Surrogate Recovery Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19699-1	I82665.D	63.0	63.0	69.0
MC19699-2	I82666.D	72.0	69.0	74.0
MC19699-3	I82667.D	69.0	67.0	55.0
MC19699-4	I82668.D	63.0	60.0	46.0
MC19699-7	I82669.D	74.0	69.0	75.0
MC19699-8	I82670.D	68.0	67.0	76.0
MC19699-9	I82671.D	68.0	64.0	53.0
MC19699-10	I82695.D	65.0	59.0	49.0
OP32662-BS	I82662.D	80.0	74.0	83.0
OP32662-MB	I82661.D	76.0	74.0	80.0
OP32662-MS	I82663.D	79.0	72.0	71.0
OP32662-MSD	I82664.D	75.0	69.0	69.0
OP32679-BS	I82691.D	68.0	64.0	77.0
OP32679-MB	I82690.D	57.0	52.0	70.0
OP32679-MS	I82692.D	62.0	58.0	71.0
OP32679-MSD	I82693.D	58.0	55.0	72.0

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32690-MB	BK23627.D	1	04/17/13	NK	04/16/13	OP32690	GBK830

The QC reported here applies to the following samples: Method: SW846 8011

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-6, MC19699-7, MC19699-8, MC19699-9, MC19699-10, MC19699-12

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)	99%	36-173%
460-00-4	Bromofluorobenzene (S)	100%	36-173%

8.1.1

8

Blank Spike Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32690-BS	BK23663.D	10	04/18/13	NK	04/16/13	OP32690	GBK832

The QC reported here applies to the following samples: Method: SW846 8011

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-6, MC19699-7, MC19699-8, MC19699-9, MC19699-10, MC19699-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.73	103	60-140
106-93-4	1,2-Dibromoethane	0.071	0.88	124	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	155%	36-173%
460-00-4	Bromofluorobenzene (S)	156%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32690-MS	BK23664.D	10	04/18/13	NK	04/16/13	OP32690	GBK832
OP32690-MSD	BK23665.D	10	04/18/13	NK	04/16/13	OP32690	GBK832
MC19800-8	BK23631.D	1	04/17/13	NK	04/16/13	OP32690	GBK830

The QC reported here applies to the following samples: Method: SW846 8011

MC19699-1, MC19699-2, MC19699-3, MC19699-4, MC19699-6, MC19699-7, MC19699-8, MC19699-9, MC19699-10, MC19699-12

CAS No.	Compound	MC19800-8 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		0.71	0.78	110	0.77	109	1	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.71	0.97	137	0.89	125	9	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-8	Limits
460-00-4	Bromofluorobenzene (S)	165%	146%	100%	36-173%
460-00-4	Bromofluorobenzene (S)	176% [a]	151%	99%	36-173%

(a) Outside control limits due to possible matrix interference.

8.3.1

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* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19699-1	BK23637.D	97.0	99.0
MC19699-2	BK23638.D	104.0	104.0
MC19699-3	BK23639.D	100.0	100.0
MC19699-4	BK23640.D	96.0	98.0
MC19699-6	BK23641.D	104.0	105.0
MC19699-7	BK23642.D	113.0	105.0
MC19699-8	BK23643.D	104.0	108.0
MC19699-9	BK23645.D	105.0	107.0
MC19699-10	BK23646.D	103.0	105.0
MC19699-12	BK23647.D	100.0	98.0
OP32690-BS	BK23663.D	155.0	156.0
OP32690-MB	BK23627.D	99.0	100.0
OP32690-MS	BK23664.D	165.0	176.0 [c]
OP32690-MSD	BK23665.D	146.0	151.0

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.

8.4.1

GC Surrogate Retention Time Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK830-CC830	Injection Date:	04/17/13
Lab File ID:	BK23622.D	Injection Time:	17:49
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23623.D	04/17/13	18:12	4.45	4.88
ZZZZZZ	BK23624.D	04/17/13	18:35	4.45	4.88
ZZZZZZ	BK23625.D	04/17/13	18:59	4.45	4.88
ZZZZZZ	BK23626.D	04/17/13	19:22	4.45	4.88
OP32690-MB	BK23627.D	04/17/13	19:46	4.45	4.88
MC19800-8	BK23631.D	04/17/13	21:20	4.45	4.88
ZZZZZZ	BK23632.D	04/17/13	21:45	4.45	4.88

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK830-CC830	Injection Date:	04/17/13
Lab File ID:	BK23633.D	Injection Time:	22:09
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23634.D	04/17/13	22:33	4.45	4.88
ZZZZZZ	BK23635.D	04/17/13	22:57	4.45	4.88
ZZZZZZ	BK23636.D	04/17/13	23:22	4.45	4.88
MC19699-1	BK23637.D	04/17/13	23:46	4.45	4.88
MC19699-2	BK23638.D	04/18/13	00:10	4.45	4.88
MC19699-3	BK23639.D	04/18/13	00:34	4.45	4.88
MC19699-4	BK23640.D	04/18/13	00:58	4.45	4.88
MC19699-6	BK23641.D	04/18/13	01:22	4.45	4.88
MC19699-7	BK23642.D	04/18/13	01:46	4.45	4.88
MC19699-8	BK23643.D	04/18/13	02:09	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.2

GC Surrogate Retention Time Summary

Job Number: MC19699
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK830-CC830	Injection Date:	04/18/13
Lab File ID:	BK23644.D	Injection Time:	02:33
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC19699-9	BK23645.D	04/18/13	02:56	4.45	4.88
MC19699-10	BK23646.D	04/18/13	03:20	4.45	4.88
MC19699-12	BK23647.D	04/18/13	03:43	4.45	4.88
ZZZZZZ	BK23648.D	04/18/13	04:06	4.45	4.88
ZZZZZZ	BK23649.D	04/18/13	04:30	4.45	4.88
ZZZZZZ	BK23650.D	04/18/13	04:53	4.45	4.88
ZZZZZZ	BK23651.D	04/18/13	05:16	4.45	4.88
GBK830-ECC830	BK23652.D	04/18/13	05:39	4.45	4.88

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: MC19699
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK832-CC830	Injection Date:	04/18/13
Lab File ID:	BK23662.D	Injection Time:	10:14
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
OP32690-BS	BK23663.D	04/18/13	10:37	4.45	4.89
OP32690-MS	BK23664.D	04/18/13	11:01	4.45	4.89
OP32690-MSD	BK23665.D	04/18/13	11:25	4.45	4.88
GBK832-ECC830	BK23666.D	04/18/13	11:49	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.4

Roxana Groundwater Quarterly – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19724

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/15/2013

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

Sample Identification	Sample Identification
ROST4PZC-ROX-041013	MW7-ROX-041013
MW7-ROX-041013-Dup	MW8-ROX-041013
P54-ROX-041013	TB-ROX-041013-HCL
TB-ROX-041013-ST	

1.0 Data Package Completeness

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

Yes; please see SDG MC20494 for results for the re-sampling of well P54.

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 SVOC surrogate 2-fluorophenol was outside evaluation criteria for sample MW9-ROX-040913. VOC MS/MSD recoveries were outside evaluation criteria in sample P54-ROX-041013. Internal standard area recoveries for chlorobenzene-d_5 and 1,4-dichlorobenzene-d_4 in sample ROST4PZC-ROX-041013 were outside criteria. Although not indicated in the laboratory case narrative, phenol was detected in the method blank. Samples ROST4PZC-ROX-041013, MW8-ROX-041013 and field duplicate pair MW7-ROX-041013/MW7-ROX-041013-Dup were diluted due to high levels of VOC target analytes. Additionally, the initial 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 0.9ºC, 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?

Yes

Blank ID	Parameter	Analyte	Concentration/ Amount
OP32681-MB	SVOCs	Phenol	3.5 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 required qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST4PZC-ROX-041013	SVOCs	Phenol	-	**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
MSH2003-BS	VOCs	Acetone	**163**	NA	70-130
MSH2003-BS	VOCs	Acrolein	**59**	NA	70-130
MSH2003-BS	VOCs	2-Chloroethyl vinyl ether	**49**	NA	70-130
MSH2003-BS	VOCs	2-Hexanone	**138**	NA	70-130
MSH2005-BS	VOCs	Acetone	**158**	NA	70-130
MSH2005-BS	VOCs	Acrolein	**48**	NA	70-130
MSH2005-BS	VOCs	Acrylonitrile	**62**	NA	70-130
MSH2005-BS	VOCs	Carbon tetrachloride	**134**	NA	70-130
MSH2005-BS	VOCs	2-Chloroethyl vinyl ether	**68**	NA	70-130
MSH2005-BS	VOCs	1,1,1,2-Tetrachloroethane	**135**	NA	70-130
OP32661-BS	SVOCs	2,4-Dinitrophenol	**149**	NA	30-130
OP32661-BS	SVOCs	4,6-Dinitro-o-cresol	**136**	NA	30-130
OP32661-BS	SVOCs	3,3'-Dichlorobenzidine	**11**	NA	40-140
OP32661-BS	SVOCs	Dimethyl phthalate	**30**	NA	40-140
OP32681-BS	SVOCs	3,3'-Dichlorobenzidine	**12**	NA	40-140
OP32681-BS	SVOCs	Hexachlorocyclopentadiene	**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 MSH2005-BS was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
MW7-ROX-041013	VOCs	Acrolein	**UJ**
MW7-ROX-041013	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW7-ROX-041013-Dup	VOCs	Acrolein	**UJ**
MW7-ROX-041013-Dup	VOCs	2-Chloroethyl vinyl ether	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW8-ROX-041013	VOCs	Acrolein	**UJ**
MW8-ROX-041013	VOCs	2-Chloroethyl vinyl ether	**UJ**
P54-ROX-041013	VOCs	Acrolein	**UJ**
P54-ROX-041013	VOCs	2-Chloroethyl vinyl ether	**UJ**
ROST4PZC-ROX-041013	VOCs	Acrolein	**UJ**
ROST4PZC-ROX-041013	VOCs	Acrylonitrile	**UJ**
ROST4PZC-ROX-041013	VOCs	2-Chloroethyl vinyl ether	**UJ**
P54-ROX-041013	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P54-ROX-041013	SVOCs	Dimethyl phthalate	**UJ**
ROST4PZC-ROX-041013	SVOCs	3,3'-Dichlorobenzidine	**UJ**
ROST4PZC-ROX-041013	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-041013	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW7-ROX-041013	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-041013-Dup	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW7-ROX-041013-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW8-ROX-041013	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW8-ROX-041013	SVOCs	Hexachlorocyclopentadiene	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW8-ROX-041013 Run#2	SVOCs	2,4,6-Tribromophenol	**112**	15-110

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
MW8-ROX-041013	SVOCs	Phenol	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample P54-ROX-041013 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-041013	VOCs	Acrolein	**54/54**	1	70-130/30

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
P54-ROX-041013	VOCs	Carbon tetrachloride	**133**/128	4	70-130/30
P54-ROX-041013	VOCs	2-Chloroethyl vinyl ether	**3/0**	**200**	70-130/30
P54-ROX-041013	VOCs	1,1,1,2-Tetrachloroethane	**137/132**	**4**	70-130/30
P54-ROX-041013	VOCs	Tetrachloroethene	**133**/130	2	70-130/30
P54-ROX-041013	SVOCs	2,4-Dinitrophenol	**156/153**	2	30-130/20
P54-ROX-041013	SVOCs	4,6-Dinitro-o-cresol	**140/142**	2	30-130/20
P54-ROX-041013	SVOCs	Phenol	57/45	**25**	30-130/20
P54-ROX-041013	SVOCs	Aniline	40/**38**	4	40-140/20
P54-ROX-041013	SVOCs	3,3'-Dichlorobenzidine	**10/10**	0	40-140/20
P54-ROX-041013	SVOCs	Hexachlorocyclopentadiene	43/**36**	17	40-140/20
P54-ROX-041013	SVOCs	Pyridine	**39/38**	2	40-140/20

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
ROST4PZC-ROX-041013	VOCs	Chlorobenzene-d_5	**43628**	46183-184730
ROST4PZC-ROX-041013	VOCs	1,4-Dichlorobenzene-d_4	**51114**	61224-244894

Analytical data that required qualification based on internal standard data are included in the table below.

Field ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-041013	VOCs	1,1,1-Trichloroethane	**UJ**
ROST4PZC-ROX-041013	VOCs	Carbon tetrachloride	**UJ**
ROST4PZC-ROX-041013	VOCs	Benzene	**J**
ROST4PZC-ROX-041013	VOCs	Trichloroethene	**UJ**

Field ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-041013	VOCs	1,2-Dichloropropane	**UJ**
ROST4PZC-ROX-041013	VOCs	Bromodichloromethane	**UJ**
ROST4PZC-ROX-041013	VOCs	cis-1,3-Dichloropropene	**UJ**
ROST4PZC-ROX-041013	VOCs	4-Methyl-2-pentanone (MIBK)	**UJ**
ROST4PZC-ROX-041013	VOCs	Toluene	**J**
ROST4PZC-ROX-041013	VOCs	trans-1,3-Dichloropropene	**UJ**
ROST4PZC-ROX-041013	VOCs	1,1,2-Trichloroethane	**UJ**
ROST4PZC-ROX-041013	VOCs	Tetrachloroethene	**UJ**
ROST4PZC-ROX-041013	VOCs	2-Hexanone	**UJ**
ROST4PZC-ROX-041013	VOCs	Dibromochloromethane	**UJ**
ROST4PZC-ROX-041013	VOCs	Chlorobenzene	**UJ**
ROST4PZC-ROX-041013	VOCs	Ethylbenzene	**J**
ROST4PZC-ROX-041013	VOCs	m,p-Xylene	**UJ**
ROST4PZC-ROX-041013	VOCs	o-Xylene	**UJ**
ROST4PZC-ROX-041013	VOCs	Xylene (total)	**UJ**
ROST4PZC-ROX-041013	VOCs	Styrene	**UJ**
ROST4PZC-ROX-041013	VOCs	Isopropylbenzene	**J**
ROST4PZC-ROX-041013	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
ROST4PZC-ROX-041013	VOCs	Bromoform	**UJ**
ROST4PZC-ROX-041013	VOCs	1,3-Dichlorobenzene	**UJ**
ROST4PZC-ROX-041013	VOCs	1,4-Dichlorobenzene	**UJ**
ROST4PZC-ROX-041013	VOCs	1,2-Dichlorobenzene	**UJ**
ROST4PZC-ROX-041013	VOCs	1,2,4-Trichlorobenzene	**UJ**
ROST4PZC-ROX-041013	VOCs	1,2,3-Trichlorobenzene	**UJ**

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-041013	MW7-ROX-041013-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.

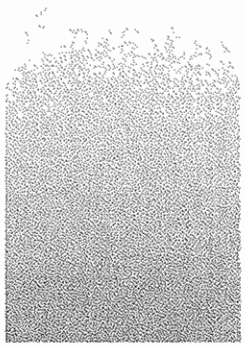
12.0 Additional Qualifications

Were additional qualifications applied?

No, although the initial calibration verification for acrolein exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of data was required.

New England ACCUTEST LABORATORIES

05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19724

Sampling Date: 04/10/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **117**

Reviewed on 5/15/2013

Reza Tand
Lab Director

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.

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)

Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7 8

Sample Summary

Shell Oil

Job No: MC19724

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19724-1	04/10/13	09:05	LRMM	04/11/13	AQ	Ground Water	ROST4PZC-ROX-041013
MC19724-2	04/10/13	11:10	LRMM	04/11/13	AQ	Ground Water	MW7-ROX-041013
MC19724-3	04/10/13	11:10	LRMM	04/11/13	AQ	Ground Water	MW7-ROX-041013-DUP
MC19724-4	04/10/13	13:30	LRMM	04/11/13	AQ	Ground Water	MW8-ROX-041013
MC19724-5	04/10/13	14:30	LRMM	04/11/13	AQ	Ground Water	P54-ROX-041013
MC19724-5D	04/10/13	14:30	LRMM	04/11/13	AQ	Water Dup/MSD	P54-ROX-041013
MC19724-5S	04/10/13	14:30	LRMM	04/11/13	AQ	Water Matrix Spike	P54-ROX-041013
MC19724-6	04/10/13	00:00	LRMM	04/11/13	AQ	Trip Blank Water	TB-ROX-041013-HCL
MC19724-7	04/10/13	00:00	LRMM	04/11/13	AQ	Trip Blank Water	TB-ROX-041013-ST

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19724
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	**Report Date**	5/1/2013 4:39:25 PM

5 Sample(s), 2 Trip Blank(s) were collected on 04/10/2013 and were received at Accutest on 04/11/2013 properly preserved, at 0.9 Deg. C and intact. These Samples received an Accutest job number of MC19724. 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)aeridine, 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:** MSH2003

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19724-5MS, MC19724-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification MSH1993-ICV1993 for acrolein exceeds 50% Difference. Acrolein is within criteria in continuing calibration check standard MSH2003-CC1993 and MSH2005-CC1993.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, 2-Hexanone, Acetone, Acrolein are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein, Carbon tetrachloride, Tetrachloroethene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 1,1,1,2-Tetrachloroethane, Acrolein, 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-Chloroethyl vinyl ether are outside control limits for sample MC19724-5MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.

Matrix AQ **Batch ID:** MSH2004

- MC19724-1: Confirmation run.

Matrix AQ **Batch ID:** MSH2005

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19922-1MS, MC19922-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acetone, Acrolein, Acrylonitrile, Carbon tetrachloride are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein, Acrylonitrile 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, Acrolein, Acrylonitrile, Carbon disulfide are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC19724-1 has internal standard outside control limits. Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP32661

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19724-5MS, MC19724-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 3,3'-Dichlorobenzidine, Dimethyl phthalate are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 3,3'-Dichlorobenzidine, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 3,3'-Dichlorobenzidine, Aniline, Hexachloroeyclopentadiene, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MSD for Phenol are outside control limits for sample OP32661-MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- OP32661-BS/MS/MSD for 4,6-Dinitro-o-cresol, 2,4-Dinitrophenol: Outside control limits. Associated samples are non-detect for this compound.

Matrix AQ	Batch ID: OP32681

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-2MS, MC19800-2MSD were used as the QC samples indicated.
- MC19724-1 has compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- BS/MS/MSD Recovery(s) for 3,3'-Dichlorobenzidine, Hexachlorocyclopentadiene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 4,6-Dinitro-o-cresol, Pentachlorophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2,4.5-Trichlorophenol, 2-Nitrophenol. 4,6-Dinitro-o-eresol, Pentachlorophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC19724-4 for 2,4,6-Tribromophenol: Outside control limits due to possible matrix interference.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP32662

- All samples were extracted withiu the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19724-5MS, MC19724-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix AQ	Batch ID: OP32682

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-3MS, MC19800-3MSD 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: OP32696

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19724-5MS, MC19724-5MSD 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(MC19724).

Summary of Hits

Job Number: MC19724
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/10/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19724-1	ROST4PZC-ROX-041013					
Benzene		15.3	0.50	0.24	ug/l	SW846 8260B
Ethylbenzene		2.8	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		0.61 J	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		1.1 J	5.0	0.58	ug/l	SW846 8260B
Toluene		0.60 J	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		1.6 J	5.0	0.35	ug/l	SW846 8260B
Phenol		5.5 B	5.5	0.56	ug/l	SW846 8270C
Acenaphthene		0.066 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.018 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Anthracene		0.033 J	0.11	0.019	ug/l	SW846 8270C BY SIM
Fluorene		0.069 J	0.11	0.051	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		0.62	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		0.078 J	0.22	0.057	ug/l	SW846 8270C BY SIM
Phenanthrene		0.18	0.055	0.014	ug/l	SW846 8270C BY SIM
MC19724-2	MW7-ROX-041013					
Benzene		475000	1000	480	ug/l	SW846 8260B
Phenol		147	27	2.8	ug/l	SW846 8270C
Dibenzofuran		0.83 J	2.2	0.17	ug/l	SW846 8270C
Acenaphthene		1.2	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.15	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.089 J	0.11	0.019	ug/l	SW846 8270C BY SIM
Fluoranthene		0.039 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.81	0.11	0.050	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		27.1	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		35.1	0.22	0.056	ug/l	SW846 8270C BY SIM
Phenanthrene		1.4	0.054	0.014	ug/l	SW846 8270C BY SIM
Pyrene		0.15	0.11	0.039	ug/l	SW846 8270C BY SIM
MC19724-3	MW7-ROX-041013-DUP					
Benzene		499000	1000	480	ug/l	SW846 8260B
Phenol		148	27	2.7	ug/l	SW846 8270C
Dibenzofuran		0.88 J	2.1	0.17	ug/l	SW846 8270C
Acenaphthene		1.2	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.16	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.11	0.11	0.019	ug/l	SW846 8270C BY SIM
Fluoranthene		0.068 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.87	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		27.4	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		35.7	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		1.5	0.053	0.013	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC19724
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/10/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Pyrene		0.16	0.11	0.038	ug/l	SW846 8270C BY SIM
MC19724-4	**MW8-ROX-041013**					
Benzene		969000	2500	1200	ug/l	SW846 8260B
2,4-Dimethylphenol		35.8	11	1.2	ug/l	SW846 8270C
2-Methylphenol		38.8	11	1.4	ug/l	SW846 8270C
3&4-Methylphenol		84.0	11	2.2	ug/l	SW846 8270C
Phenol		253	27	2.7	ug/l	SW846 8270C
Di-n-butyl phthalate		1.3 J	5.3	0.41	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		2.3	2.1	0.52	ug/l	SW846 8270C
Acenaphthene		0.18	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.059 J	0.11	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.072 J	0.11	0.019	ug/l	SW846 8270C BY SIM
Fluoranthene		0.056 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.32	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		9.1	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		11.3	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.19	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.042 J	0.11	0.038	ug/l	SW846 8270C BY SIM
MC19724-5	**P54-ROX-041013**					
Benzene		172	0.50	0.24	ug/l	SW846 8260B
MC19724-6	**TB-ROX-041013-HCL**					
No hits reported in this sample.						
MC19724-7	**TB-ROX-041013-ST**					
No hits reported in this sample.						

* Sample P54-ROX-041013 results do not match historica
please see SDG 20494 for second sampling results.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041013		
Lab Sample ID:	MC19724-1	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60651.D	1	04/22/13	KR	n/a	n/a	MSH2005
Run #2 [a]	H60627.D	10	04/21/13	AMY	n/a	n/a	MSH2004

	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	10	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	15.3	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	UJ
75-25-2	Bromoform	ND	1.0	0.78	ug/l	UJ
74-83-9	Bromomethane	ND	2.0	1.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	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	UJ
108-90-7	Chlorobenzene	ND	1.0	0.47	ug/l	UJ
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	UJ
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.93	ug/l	UJ
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.45	ug/l	UJ
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.64	ug/l	UJ
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 iu associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041013		
Lab Sample ID:	MC19724-1	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	UJ
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	UJ
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.20	ug/l	UJ
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	2.8	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	UJ
98-82-8	Isopropylbenzene	0.61	5.0	0.50	ug/l	J J
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	UJ
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	1.1	5.0	0.58	ug/l	J
100-42-5	Styrene	ND	5.0	0.45	ug/l	UJ
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	UJ
127-18-4	Tetrachloroethene	ND	1.0	0.42	ug/l	UJ
108-88-3	Toluene	0.60	1.0	0.51	ug/l	J J
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.3	ug/l	UJ
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.3	ug/l	UJ
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.85	ug/l	UJ
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.50	ug/l	UJ
79-01-6	Trichloroethene	ND	1.0	0.78	ug/l	UJ
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	1.6	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	UJ
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	UJ
1330-20-7	Xylene (total)	ND	1.0	0.58	ug/l	UJ

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

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041013		
Lab Sample ID:	MC19724-1	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%	88%	70-130%
2037-26-5	Toluene-D8	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	112%	113%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

(a) Confirmation run.

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

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041013		
Lab Sample ID:	MC19724-1	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63178.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
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	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.64	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	~~5.5~~ U	5.5	0.56	ug/l	B U
95-95-4	2,4,5-Trichlorophenol	ND	11	0.63	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.35	ug/l	
62-53-3	Aniline	ND	11	0.70	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.5	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.5	0.94	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.63	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.5	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.5	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.5	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.5	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.5	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.5	0.72	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.74	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.71	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.5	0.55	ug/l	U J
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.5	0.43	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.5	0.48	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:	ROST4PZC-ROX-041013		
Lab Sample ID:	MC19724-1	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.55	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.54	ug/l	
118-74-1	Hexachlorobenzene	ND	5.5	0.33	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	
67-72-1	Hexachloroethane	ND	5.5	0.48	ug/l	
78-59-1	Isophorone	ND	5.5	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	I1	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.55	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.8	ug/l	
98-95-3	Nitrobenzene	ND	5.5	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.5	0.55	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.5	0.89	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.5	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.57	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		15-110%
4165-62-2	Phenol-d5	41%		15-110%
118-79-6	2,4,6-Tribromophenol	96%		15-110%
4165-60-0	Nitrobenzene-d5	92%		30-130%
321-60-8	2-Fluorobiphenyl	88%		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	

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

Report of Analysis

Client Sample ID:	ROST4PZC-ROX-041013		
Lab Sample ID:	MC19724-1	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82732.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	0.066	0.11	0.015	ug/l	J
208-96-8	Acenaphthylene	0.018	0.11	0.015	ng/l	J
120-12-7	Anthracene	0.033	0.11	0.019	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.055	0.033	ng/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	0.069	0.11	0.051	ng/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.051	ng/l	
90-12-0	1-Methylnaphthalene	0.62	0.22	0.15	ng/l	
91-57-6	2-Methylnaphthalene	0.078	0.22	0.057	ug/l	J
85-01-8	Phenanthrene	0.18	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
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	77%		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:	ROST4PZC-ROX-041013		
Lab Sample ID:	MC19724-1	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23696.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	34.1 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	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	95%		36-173%
460-00-4	Bromofluorobeuzeue (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:	MW7-ROX-041013		
Lab Sample ID:	MC19724-2	Date Sampled:	04/10/13
Matrix:	AQ - Grouud Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60594.D	2000	04/20/13	AMY	n/a	n/a	MSH2003
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	6000	ug/l	
107-02-8	Acrolein	ND	50000	20000	ug/l	UJ
107-13-1	Acrylonitrile	ND	10000	6500	ug/l	
71-43-2	Benzene	475000	1000	480	ug/l	
108-86-1	Bromobenzene	ND	10000	1200	ug/l	
74-97-5	Bromochloromethane	ND	10000	2500	ug/l	
75-27-4	Bromodichloromethane	ND	2000	1200	ug/l	
75-25-2	Bromoform	ND	2000	1600	ug/l	
74-83-9	Bromomethane	ND	4000	2000	ug/l	
78-93-3	2-Butanone (MEK)	ND	20000	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	ug/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:	MW7-ROX-041013		
Lab Sample ID:	MC19724-2	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ND	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 compouud

Report of Analysis

Client Sample ID:	MW7-ROX-041013		
Lab Sample ID:	MC19724-2	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	96%		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-041013		
Lab Sample ID:	MC19724-2	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63180.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	F63273.D	5	04/23/13	KR	04/16/13	OP32681	MSF2955

	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	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ng/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ng/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	147 [a]	27	2.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.93	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ng/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.71	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.70	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	UJ
132-64-9	Dibenzofuran	0.83	2.2	0.17	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.4	0.42	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	MW7-ROX-041013		
Lab Sample ID:	MC19724-2	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.4	0.48	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.88	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%	46%	15-110%
4165-62-2	Phenol-d5	36%	38%	15-110%
118-79-6	2,4,6-Tribromophenol	98%	98%	15-110%
4165-60-0	Nitrobenzene-d5	94%	96%	30-130%
321-60-8	2-Fluorobiphenyl	89%	93%	30-130%
1718-51-0	Terphenyl-d14	82%	82%	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:	MW7-ROX-041013		
Lab Sample ID:	MC19724-2	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	182733.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	1.2	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	0.15	0.11	0.014	ug/l	
120-12-7	Anthracene	0.089	0.11	0.019	ug/l	J
56-55-3	Benzo(a)anthracene	ND	0.054	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	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	0.079	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	0.039	0.11	0.035	ug/l	J
86-73-7	Fluorene	0.81	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.050	ug/l	
90-12-0	1-Methylnaphthalene	27.1	0.22	0.15	ng/l	
91-57-6	2-Methylnaphthalene	35.1	0.22	0.056	ug/l	
85-01-8	Phenanthrene	1.4	0.054	0.014	ug/l	
129-00-0	Pyrene	0.15	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	80%		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:	MW7-ROX-041013		
Lab Sample ID:	MC19724-2	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23697.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	32.6 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	136%		36-173%
460-00-4	Bromofluorobenzene (S)	138%		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-041013-DUP		
Lab Sample ID:	MC19724-3	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, 1L		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60595.D	2000	04/20/13	AMY	n/a	n/a	MSH2003
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	Acetoue	ND	20000	6000	ug/l	
107-02-8	Acrolein	ND	50000	20000	ug/l	uJ
107-13-1	Acrylonitrile	ND	10000	6500	ug/l	
71-43-2	Benzene	499000	1000	480	ug/l	
108-86-1	Bromobenzene	ND	10000	1200	ug/l	
74-97-5	Bromochloromethane	ND	10000	2500	ug/l	
75-27-4	Bromodichloromethane	ND	2000	1200	ug/l	
75-25-2	Bromoform	ND	2000	1600	ug/l	
74-83-9	Bromomethane	ND	4000	2000	ng/l	
78-93-3	2-Butanone (MEK)	ND	20000	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	ug/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	ng/l	uJ
67-66-3	Chloroform	ND	2000	990	ug/l	
74-87-3	Chloromethane	ND	4000	1500	ug/l	
95-49-8	o-Chlorotolnene	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:	MW7-ROX-041013-DUP		
Lab Sample ID:	MC19724-3	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ND	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:	MW7-ROX-041013-DUP		
Lab Sample ID:	MC19724-3	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
2037-26-5	Toluene-D8	97%		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 au 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-041013-DUP		
Lab Sample ID:	MC19724-3	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63181.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	F63277.D	5	04/23/13	KR	04/16/13	OP32681	MSF2955

	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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ng/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.62	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	148 [a]	27	2.7	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.61	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.91	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.98	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.72	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UJ
132-64-9	Dibenzofuran	0.88	2.1	0.17	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.3	0.41	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-041013-DUP		
Lab Sample ID:	MC19724-3	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.52	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.32	ng/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	U
67-72-1	Hexachloroethaue	ND	5.3	0.47	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.86	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.58	ug/l	
110-86-1	Pyridine	ND	11	0.55	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%	46%	15-110%
4165-62-2	Phenol-d5	35%	38%	15-110%
118-79-6	2,4,6-Tribromophenol	92%	105%	15-110%
4165-60-0	Nitrobenzene-d5	98%	108%	30-130%
321-60-8	2-Fluorobiphenyl	92%	103%	30-130%
1718-51-0	Terphenyl-d14	81%	90%	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:	MW7-ROX-041013-DUP		
Lab Sample ID:	MC19724-3	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	182734.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	1.2	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.16	0.11	0.014	ug/l	
120-12-7	Anthracene	0.11	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	0.068	0.11	0.035	ug/l	J
86-73-7	Fluorene	0.87	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	27.4	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	35.7	0.21	0.055	ug/l	
85-01-8	Phenanthrene	1.5	0.053	0.013	ug/l	
129-00-0	Pyrene	0.16	0.11	0.038	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	84%		30-130%
321-60-8	2-Fluorobiphenyl	80%		30-130%
1718-51-0	Terphenyl-d14	74%		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-041013-DUP		
Lab Sample ID:	MC19724-3	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23698.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	34.2 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	0.013	ng/l	
106-93-4	1,2-Dibromoethane	ND	0.015	0.011	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	129%		36-173%
460-00-4	Bromofluorobenzene (S)	127%		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-041013		
Lab Sample ID:	MC19724-4	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60596.D	5000	04/20/13	AMY	n/a	n/a	MSH2003
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	50000	15000	ug/l	
107-02-8	Acrolein	ND	130000	51000	ug/l	UJ
107-13-1	Acrylonitrile	ND	25000	16000	ug/l	
71-43-2	Benzene	969000	2500	1200	ug/l	
108-86-1	Bromobenzene	ND	25000	3100	ug/l	
74-97-5	Bromochloromethane	ND	25000	6300	ug/l	
75-27-4	Bromodichloromethane	ND	5000	2900	ug/l	
75-25-2	Bromoform	ND	5000	3900	ug/l	
74-83-9	Bromomethane	ND	10000	5100	ug/l	
78-93-3	2-Butanone (MEK)	ND	50000	12000	ug/l	
104-51-8	n-Butylbenzene	ND	25000	3000	ug/l	
135-98-8	sec-Butylbenzene	ND	25000	2800	ug/l	
98-06-6	tert-Butylbenzene	ND	25000	3200	ug/l	
75-15-0	Carbon disulfide	ND	25000	3100	ug/l	
56-23-5	Carbon tetrachloride	ND	5000	4300	ug/l	
108-90-7	Chlorobenzene	ND	5000	2300	ug/l	
75-00-3	Chloroethane	ND	10000	2500	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	25000	6300	ug/l	UJ
67-66-3	Chloroform	ND	5000	2500	ug/l	
74-87-3	Chloromethane	ND	10000	3700	ug/l	
95-49-8	o-Chlorotoluene	ND	25000	3200	ug/l	
106-43-4	p-Chlorotoluene	ND	25000	2400	ng/l	
124-48-1	Dibromochloromethane	ND	5000	2600	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5000	4600	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5000	2300	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5000	3200	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10000	8600	ug/l	
75-34-3	1,1-Dichloroethane	ND	5000	3100	ug/l	
107-06-2	1,2-Dichloroethane	ND	5000	3200	ug/l	
75-35-4	1,1-Dichloroethene	ND	5000	2100	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5000	3200	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5000	4700	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:	MW8-ROX-041013		
Lab Sample ID:	MC19724-4	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	10000	3600	ug/l	
142-28-9	1,3-Dichloropropane	ND	25000	3200	ug/l	
594-20-7	2,2-Dichloropropane	ND	25000	7900	ug/l	
563-58-6	1,1-Dichloropropene	ND	25000	4600	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	2500	2200	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2500	980	ug/l	
123-91-1	1,4-Dioxane	ND	130000	74000	ug/l	
97-63-2	Ethyl methacrylate	ND	25000	4100	ug/l	
100-41-4	Ethylbenzene	ND	5000	2500	ug/l	
87-68-3	Hexachlorobutadiene	ND	25000	10000	ug/l	
591-78-6	2-Hexanone	ND	25000	9800	ug/l	
98-82-8	Isopropylbenzene	ND	25000	2500	ug/l	
99-87-6	p-Isopropyltoluene	ND	25000	2900	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5000	2100	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	25000	15000	ug/l	
74-95-3	Methylene bromide	ND	25000	5500	ug/l	
75-09-2	Methylene chloride	ND	10000	4200	ng/l	
91-20-3	Naphthalene	ND	25000	2500	ug/l	
103-65-1	n-Propylbeuzene	ND	25000	2900	ug/l	
100-42-5	Styrene	ND	25000	2300	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	25000	2900	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5000	3000	ug/l	
127-18-4	Tetrachloroethene	ND	5000	2100	ug/l	
108-88-3	Toluene	ND	5000	2500	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	25000	6300	ug/l	
120-82-1	1,2,4-Trichlorohenzene	ND	25000	6400	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5000	4200	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5000	2500	ug/l	
79-01-6	Trichloroethene	ND	5000	3900	ug/l	
75-69-4	Trichlorofluoromethane	ND	5000	1400	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	25000	4200	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	25000	1700	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	25000	2300	ug/l	
108-05-4	Vinyl Acetate	ND	25000	6300	ug/l	
75-01-4	Vinyl chloride	ND	5000	3100	ug/l	
	m,p-Xylene	ND	5000	3700	ug/l	
95-47-6	o-Xylene	ND	5000	2900	ug/l	
1330-20-7	Xylene (total)	ND	5000	2900	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-041013		
Lab Sample ID:	MC19724-4	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	99%		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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041013		
Lab Sample ID:	MC19724-4	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63182.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	F63278.D	5	04/23/13	KR	04/16/13	OP32681	MSF2955

	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	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	35.8	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	38.8	11	1.4	ug/l	
	3&4-Methylphenol	84.0	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.62	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	253 [a]	27	2.7	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	11	0.61	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.68	ug/l	
101-55-3	4-Brounophenyl phenyl ether	ND	5.3	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.91	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.98	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydraziue	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.72	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	1.3	5.3	0.41	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibratiou 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:	MW8-ROX-041013		
Lab Sample ID:	MC19724-4	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	2.3	2.1	0.52	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	0.47	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.86	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.58	ug/l	
110-86-1	Pyridine	ND	11	0.55	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%	61%	15-110%
4165-62-2	Phenol-d5	43%	50%	15-110%
118-79-6	2,4,6-Tribromophenol	99%	112% b	15-110%
4165-60-0	Nitrobenzene-d5	85%	98%	30-130%
321-60-8	2-Fluorobiphenyl	81%	95%	30-130%
1718-51-0	Terphenyl-d14	91%	104%	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
(b) Outside control limits due to possible matrix interference.

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

Report of Analysis

Client Sample ID:	MW8-ROX-041013		
Lab Sample ID:	MC19724-4	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82735.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	0.18	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.059	0.11	0.014	ug/l	J
120-12-7	Anthracene	0.072	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	0.056	0.11	0.035	ug/l	J
86-73-7	Fluorene	0.32	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	9.1	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	11.3	0.21	0.055	ug/l	
85-01-8	Phenanthrene	0.19	0.053	0.013	ug/l	
129-00-0	Pyrene	0.042	0.11	0.038	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	81%		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-041013		
Lab Sample ID:	MC19724-4	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23699.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	118%		36-173%
460-00-4	Bromofluorobenzene (S)	120%		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

* Sample P54-ROX-041013 results do not match historical; please see SDG MC20494 for second sampling results

Accutest LabLink@136412 14:30 06-May-2013

Report of Analysis

Client Sample ID:	P54-ROX-041013		
Lab Sample ID:	MC19724-5	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60582.D	1	04/20/13	AMY	n/a	n/a	MSH2003
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	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	172	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	10	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-Dichlorobeuzene	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-041013		
Lab Sample ID:	MC19724-5	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-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-041013		
Lab Sample ID:	MC19724-5	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	100%		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:	P54-ROX-041013		
Lab Sample ID:	MC19724-5	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U13718.D	1	04/19/13	NS	04/15/13	OP32661	MSU694
Run #2							

	Initial Volume	Final Volume
Run #1	870 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	5.7	0.44	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.57	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.38	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	23	2.9	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.4	ug/l	
95-48-7	2-Methylphenol	ND	11	1.5	ug/l	
	3&4-Methylphenol	ND	11	2.3	ug/l	
88-75-5	2-Nitropbenol	ND	11	0.57	ug/l	
100-02-7	4-Nitropheuol	ND	23	0.67	ug/l	
87-86-5	Pentachloropheuol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.7	0.59	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.66	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.36	ug/l	
62-53-3	Aniliue	ND	11	0.73	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.7	0.23	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.7	0.98	ug/l	
100-51-6	Beuzyl Alcohol	ND	11	0.66	ug/l	
91-58-7	2-Chlorouaphthalene	ND	5.7	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.29	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.7	0.24	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.7	0.27	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.7	0.15	ug/l	
7005-72-3	4-Chlorophenyl pheuyl ether	ND	5.7	0.23	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.7	0.75	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.78	ug/l	
606-20-2	2,6-Dinitrotolueue	ND	11	0.74	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.7	0.57	ug/l	
132-64-9	Dibenzofuran	ND	2.3	0.18	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.7	0.45	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.7	0.50	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-041013		
Lab Sample ID:	MC19724-5	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
84-66-2	Diethyl phthalate	ND	5.7	0.57	ug/l	
131-11-3	Dimethyl phthalate	ND	5.7	0.57	ng/l	aJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.3	0.56	ng/l	
118-74-1	Hexachlorobenzene	ND	5.7	0.34	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.9	ug/l	
67-72-1	Hexachloroethane	ND	5.7	0.50	ug/l	
78-59-1	Isophorone	ND	5.7	0.23	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.32	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.57	ug/l	
100-01-6	4-Nitroaniline	ND	11	5.0	ug/l	
98-95-3	Nitrobenzene	ND	5.7	0.29	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.7	0.57	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.7	0.93	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.7	0.62	ug/l	
110-86-1	Pyridine	ND	11	0.59	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		15-110%
4165-62-2	Phenol-d5	29%		15-110%
118-79-6	2,4,6-Tribromophenol	80%		15-110%
4165-60-0	Nitrobenzene-d5	75%		30-130%
321-60-8	2-Fluorobiphenyl	72%		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:	P54-ROX-041013		
Lab Sample ID:	MC19724-5	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82672.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
Run #2							

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.11	0.016	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	0.057	0.034	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.020	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.057	0.027	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.11	0.043	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.067	ug/l	
218-01-9	Chrysene	ND	0.11	0.084	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.048	ug/l	
206-44-0	Fluoranthene	ND	0.11	0.037	ug/l	
86-73-7	Fluorene	ND	0.11	0.053	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.053	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.23	0.16	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.23	0.060	ug/l	
85-01-8	Phenanthrene	ND	0.057	0.014	ng/l	
129-00-0	Pyrene	ND	0.11	0.041	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	70%		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:	P54-ROX-041013		
Lab Sample ID:	MC19724-5	Date Sampled:	04/10/13
Matrix:	AQ - Ground Water	Date Received:	04/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23700.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	84%		36-173%
460-00-4	Bromofluorobenzene (S)	97%		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-041013-HCL		
Lab Sample ID:	MC19724-6	Date Sampled:	04/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60649.D	1	04/22/13	KR	n/a	n/a	MSH2005
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	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	10	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-041013-HCL		
Lab Sample ID:	MC19724-6	Date Sampled:	04/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-Trichloropropaue	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-041013-HCL		
Lab Sample ID:	MC19724-6	Date Sampled:	04/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	103%		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-ROX-041013-ST		
Lab Sample ID:	MC19724-7	Date Sampled:	04/10/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/11/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23701.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	34.1 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	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	76%		36-173%
460-00-4	Bromoflnorobenzene (S)	87%		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

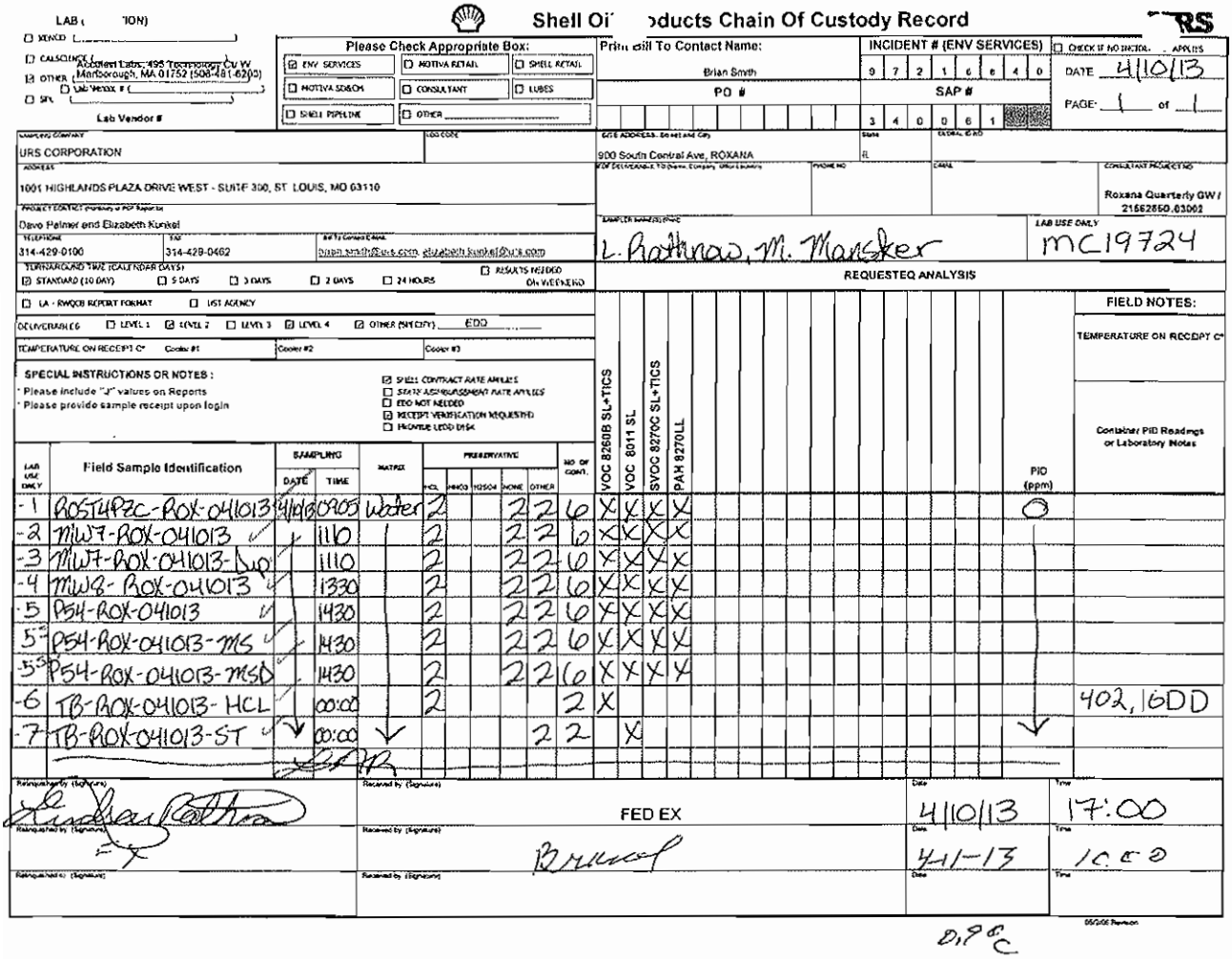
New England ACCUTEST LABORATORIES

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 (ATION)
☐ XENCO (_____)
☐ CALSCIENCE (_____)
☒ OTHER (Accutest Labs, 495 Technology Dr W, Marlborough, MA 01752 (508-481-6200))
☐ SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
☒ ENV SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOS/OM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Brian Smith
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 4/10/13
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 SAMPLER CONTACT EMAIL: brian.smith@urs.com, elizabeth.kunkel@urs.com
SITE ADDRESS: 900 South Central Ave, ROXANA STATE: IL FEDERAL ID NO.
EDF DELIVERABLE TO (Name, Company, Office Location) PHONE NO. EMAIL
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562850.03002
SAMPLER NAME(S) PRINT: L. Rathman, M. Marsker
LAB USE ONLY: MC19724

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 ASSESSMENT 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)	FIELD NOTES: Container PID Readings or Laboratory Notes
-1	ROST4P2C-ROX-041013	4/10/13	0905	Water	2			2	2	6	X	X	X	X	0	
-2	MW7-ROX-041013	"	1110	"	2			2	2	6	X	X	X	X		
-3	MW7-ROX-041013-DUP	"	1110	"	2			2	2	6	X	X	X	X		
-4	MW8-ROX-041013	"	1330	"	2			2	2	6	X	X	X	X		
-5	P54-ROX-041013	"	1430	"	2			2	2	6	X	X	X	X		
-5MS	P54-ROX-041013-MS	"	1430	"	2			2	2	6	X	X	X	X		
-5SD	P54-ROX-041013-MSD	"	1430	"	2			2	2	6	X	X	X	X		
-6	TB-ROX-041013-HCL	"	00:00	"	2					2	X					402, 16DD
-7	TB-ROX-041013-ST	"	00:00	"					2	2		X				

Relinquished by (Signature): L. Rathman — Received by (Signature): FED EX — Date: 4/10/13 — Time: 17:00
Relinquished by (Signature): — Received by (Signature): Brunal — Date: 4/11/13 — Time: 1000
Relinquished by (Signature): — Received by (Signature): — Date: — Time:

0.1°C

05/2006 Revision

5.1

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19724 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/11/2013 **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 Preservation	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

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MC19724: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19724

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19724-1 Collected: 10-APR-13 09:05 By: LRMM Received: 11-APR-13 By: ROST4PZC-ROX-041013						
MC19724-1	SW846 8011	19-APR-13 00:28	NK	17-APR-13	BJ	V8011SL
MC19724-1	SW846 8270C	19-APR-13 11:41	KR	16-APR-13	PA	AB8270SL+
MC19724-1	SW846 8270C BY SIM	19-APR-13 14:07	NS	16-APR-13	PA	B8270SIMSL
MC19724-1	SW846 8260B	21-APR-13 17:06	AMY			V8260SL+
MC19724-1	SW846 8260B	22-APR-13 15:00	KR			V8260SL+
MC19724-2 Collected: 10-APR-13 11:10 By: LRMM Received: 11-APR-13 By: MW7-ROX-041013						
MC19724-2	SW846 8011	19-APR-13 00:53	NK	17-APR-13	BJ	V8011SL
MC19724-2	SW846 8270C	19-APR-13 12:29	KR	16-APR-13	PA	AB8270SL+
MC19724-2	SW846 8270C BY SIM	19-APR-13 14:30	NS	16-APR-13	PA	B8270SIMSL
MC19724-2	SW846 8260B	20-APR-13 19:54	AMY			V8260SL+
MC19724-2	SW846 8270C	23-APR-13 10:38	KR	16-APR-13	PA	AB8270SL+
MC19724-3 Collected: 10-APR-13 11:10 By: LRMM Received: 11-APR-13 By: MW7-ROX-041013-DUP						
MC19724-3	SW846 8011	19-APR-13 01:18	NK	17-APR-13	BJ	V8011SL
MC19724-3	SW846 8270C	19-APR-13 12:53	KR	16-APR-13	PA	AB8270SL+
MC19724-3	SW846 8270C BY SIM	19-APR-13 14:54	NS	16-APR-13	PA	B8270SIMSL
MC19724-3	SW846 8260B	20-APR-13 20:22	AMY			V8260SL+
MC19724-3	SW846 8270C	23-APR-13 12:16	KR	16-APR-13	PA	AB8270SL+
MC19724-4 Collected: 10-APR-13 13:30 By: LRMM Received: 11-APR-13 By: MW8-ROX-041013						
MC19724-4	SW846 8011	19-APR-13 01:44	NK	17-APR-13	BJ	V8011SL
MC19724-4	SW846 8270C	19-APR-13 13:17	KR	16-APR-13	PA	AB8270SL+
MC19724-4	SW846 8270C BY SIM	19-APR-13 15:18	NS	16-APR-13	PA	B8270SIMSL
MC19724-4	SW846 8260B	20-APR-13 20:49	AMY			V8260SL+
MC19724-4	SW846 8270C	23-APR-13 12:40	KR	16-APR-13	PA	AB8270SL+
MC19724-5 Collected: 10-APR-13 14:30 By: LRMM Received: 11-APR-13 By: P54-ROX-041013						
MC19724-5	SW846 8270C BY SIM	17-APR-13 19:44	NS	15-APR-13	MEW	B8270SIMSL

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19724

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19724-5	SW846 8011	19-APR-13 02:09	NK	17-APR-13	BJ	V8011SL
MC19724-5	SW846 8270C	19-APR-13 10:57	NS	15-APR-13	MEW	AB8270SL+
MC19724-5	SW846 8260B	20-APR-13 14:23	AMY			V8260SL+
MC19724-6	Collected: 10-APR-13 00:00 By: LRMM			Received: 11-APR-13 By:		
TB-ROX-041013-HCL						
MC19724-6	SW846 8260B	22-APR-13 13:55	KR			V8260SL+
MC19724-7	Collected: 10-APR-13 00:00 By: LRMM			Received: 11-APR-13 By:		
TB-ROX-041013-ST						
MC19724-7	SW846 8011	19-APR-13 02:34	NK	17-APR-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/11/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19724-1.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19724-1.2	Michael Rolo		04/17/13 07:24	Depleted
MC19724-1.3	VOC Ref #4	Amy Min Yang	04/21/13 09:08	Retrieve from Storage
MC19724-1.3	Amy Min Yang	GCMSH	04/21/13 09:08	Load on Instrument
MC19724-1.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-1.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-1.3	VOC Ref #4	Gary Krasinski	04/22/13 14:03	Retrieve from Storage
MC19724-1.3	Gary Krasinski	GCMSH	04/22/13 14:03	Load on Instrument
MC19724-1.3	GCMSH	Gary Krasinski	04/23/13 09:22	Unload from Instrument
MC19724-1.3	Gary Krasinski	VOC Ref #4	04/23/13 09:22	Return to Storage
MC19724-1.4	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-1.4	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-1.4	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-1.4	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-1.6	VOC Ref #4	Bijan Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-1.6	Bijan Jafari		04/20/13 08:36	Depleted
MC19724-2.1	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19724-2.1	Michael Rolo		04/17/13 07:24	Depleted
MC19724-2.3	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-2.3	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-2.3	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-2.3	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-2.6	VOC Ref #4	Bijan Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-2.6	Bijan Jafari		04/20/13 08:36	Depleted
MC19724-3.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19724-3.2	Michael Rolo		04/17/13 07:24	Depleted
MC19724-3.4	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-3.4	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-3.4	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-3.4	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-3.5	VOC Ref #4	Bijan Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-3.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19724-4.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19724-4.2	Michael Rolo		04/17/13 07:24	Depleted

Accutest Internal Chain of Custody

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/11/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19724-4.3	VOC Ref #4	Bijan Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-4.3	Bijan Jafari		04/20/13 08:36	Depleted
MC19724-4.4	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-4.4	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrnment
MC19724-4.4	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-4.4	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-5.3	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19724-5.3	Michael Rolo		04/16/13 07:05	Depleted
MC19724-5.5	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19724-5.5	Michael Rolo		04/16/13 07:05	Depleted
MC19724-5.6	Walk In Ref #22	Michael Rolo	04/15/13 07:49	Retrieve from Storage
MC19724-5.6	Michael Rolo		04/16/13 07:05	Depleted
MC19724-5.7	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-5.7	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-5.7	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-5.7	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-5.8	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-5.8	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-5.8	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19724-5.8	Kerry Ryan	VOC Ref #4	04/22/13 11:17	Return to Storage
MC19724-5.9	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-5.9	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-5.9	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-5.9	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-5.12	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-5.12	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-5.12	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-5.12	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Retnrn to Storage
MC19724-5.13	VOC Ref #4	Bijan Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-5.13	Bijan Jafari		04/20/13 08:36	Depleted
MC19724-5.14	VOC Ref #4	Bijan Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-5.14	Bijan Jafari		04/20/13 08:36	Depleted

5.3

Accutest Internal Chain of Custody

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/11/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19724-5.15	VOC Ref #4	Bijau Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-5.15	Bijan Jafari		04/20/13 08:36	Depleted
MC19724-6.1	VOC Ref #4	Amy Min Yang	04/20/13 12:42	Retrieve from Storage
MC19724-6.1	Amy Min Yang	GCMSH	04/20/13 12:42	Load on Instrument
MC19724-6.1	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19724-6.1	Kerry Ryan	VOC Ref #4	04/22/13 08:56	Return to Storage
MC19724-6.2	VOC Ref #4	Gary Krasinski	04/22/13 13:19	Retrieve from Storage
MC19724-6.2	Gary Krasinski	GCMSH	04/22/13 13:20	Load on Instrument
MC19724-6.2	GCMSH	Gary Krasinski	04/23/13 09:22	Unload from Instrument
MC19724-6.2	Gary Krasinski	VOC Ref #4	04/23/13 09:22	Return to Storage
MC19724-7.2	VOC Ref #4	Bijan Jafari	04/17/13 16:47	Retrieve from Storage
MC19724-7.2	Bijan Jafari		04/20/13 08:36	Depleted

New England ACCUTEST LABORATORIES

GC/MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Snmmaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-MB	H60579.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	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	10	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	ng/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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-MB	H60579.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

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	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-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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-MB	H60579.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	86%	70-130%
2037-26-5	Toluene-D8	102%	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	

6.1.1

Method Blank Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Ceutral Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	u/a	n/a	MSH2005

The QC reported here applies to thc following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	Bromoforıu	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	Chlorobenzeue	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	Chloroforıu	ND	1.0	0.50	ug/l	
74-87-3	Chloromethaue	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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

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	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	ng/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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	89%	70-130%
2037-26-5	Toluene-D8	103%	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	

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-BS	H60577.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	81.6	163* a	70-130
107-02-8	Acrolein	250	148	59* a	70-130
107-13-1	Acrylonitrile	50	37.2	74	70-130
71-43-2	Benzene	50	49.9	100	70-130
108-86-1	Bromobenzene	50	56.4	113	70-130
74-97-5	Bromochloromethane	50	48.8	98	70-130
75-27-4	Bromodichloromethane	50	52.6	105	70-130
75-25-2	Bromoform	50	55.7	111	70-130
74-83-9	Bromomethane	50	52.3	105	70-130
78-93-3	2-Butanone (MEK)	50	59.4	119	70-130
104-51-8	n-Butylbenzene	50	54.0	108	70-130
135-98-8	sec-Butylbenzene	50	52.9	106	70-130
98-06-6	tert-Butylbenzene	50	52.2	104	70-130
75-15-0	Carbon disulfide	50	41.5	83	70-130
56-23-5	Carbon tetrachloride	50	51.4	103	70-130
108-90-7	Chlorobenzene	50	52.6	105	70-130
75-00-3	Chloroethane	50	47.1	94	70-130
110-75-8	2-Chloroethyl vinyl ether	50	24.6	49* a	70-130
67-66-3	Chloroform	50	47.5	95	70-130
74-87-3	Chloromethane	50	52.0	104	70-130
95-49-8	o-Chlorotoluene	50	50.2	100	70-130
106-43-4	p-Chlorotoluene	50	52.2	104	70-130
124-48-1	Dibromochloromethane	50	54.3	109	70-130
95-50-1	1,2-Dichlorobenzene	50	52.5	105	70-130
541-73-1	1,3-Dichlorobenzene	50	53.8	108	70-130
106-46-7	1,4-Dichlorobenzene	50	53.5	107	70-130
75-71-8	Dichlorodifluoromethane	50	43.2	86	70-130
75-34-3	1,1-Dichloroethane	50	44.5	89	70-130
107-06-2	1,2-Dichloroethane	50	46.6	93	70-130
75-35-4	1,1-Dichloroethene	50	47.3	95	70-130
156-59-2	cis-1,2-Dichloroethene	50	47.6	95	70-130
156-60-5	trans-1,2-Dichloroethene	50	46.6	93	70-130
78-87-5	1,2-Dichloropropane	50	46.5	93	70-130
142-28-9	1,3-Dichloropropane	50	51.8	104	70-130
594-20-7	2,2-Dichloropropane	50	52.1	104	70-130
563-58-6	1,1-Dichloropropene	50	48.3	97	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-BS	H60577.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	45.2	90	70-130
10061-02-6	trans-1,3-Dichloropropene	50	47.1	94	70-130
123-91-1	1,4-Dioxane	250	228	91	70-130
97-63-2	Ethyl methacrylate	50	44.9	90	77-137
100-41-4	Ethylbenzene	50	57.2	114	70-130
87-68-3	Hexachlorobutadiene	50	54.8	110	70-130
591-78-6	2-Hexanone	50	68.9	138* a	70-130
98-82-8	Isopropylbenzene	50	53.8	108	70-130
99-87-6	p-Isopropyltoluene	50	57.3	115	70-130
1634-04-4	Methyl Tert Butyl Ether	50	44.5	89	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.5	89	70-130
74-95-3	Methylene bromide	50	49.6	99	70-130
75-09-2	Methylene chloride	50	44.1	88	70-130
91-20-3	Naphthalene	50	45.5	91	70-130
103-65-1	n-Propylbenzene	50	51.8	104	70-130
100-42-5	Styrene	50	58.0	116	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	60.2	120	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	57.1	114	70-130
127-18-4	Tetrachloroethene	50	58.0	116	70-130
108-88-3	Toluene	50	50.4	101	70-130
87-61-6	1,2,3-Trichlorobenzene	50	49.4	99	70-130
120-82-1	1,2,4-Trichlorobenzene	50	50.9	102	70-130
71-55-6	1,1,1-Trichloroethane	50	47.0	94	70-130
79-00-5	1,1,2-Trichloroethane	50	47.6	95	70-130
79-01-6	Trichloroethene	50	47.7	95	70-130
75-69-4	Trichlorofluoromethane	50	39.9	80	70-130
96-18-4	1,2,3-Trichloropropane	50	51.6	103	70-130
95-63-6	1,2,4-Trimethylbenzene	50	54.9	110	70-130
108-67-8	1,3,5-Trimethylbenzene	50	55.6	111	70-130
108-05-4	Vinyl Acetate	50	52.8	106	70-130
75-01-4	Vinyl chloride	50	41.2	82	70-130
	m,p-Xylene	100	116	116	70-130
95-47-6	o-Xylene	50	56.1	112	70-130
1330-20-7	Xylene (total)	150	172	115	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2003-BS	H60577.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	107%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	79.1	158* a	70-130
107-02-8	Acrolein	250	119	48* a	70-130
107-13-1	Acrylonitrile	50	30.9	62* a	70-130
71-43-2	Benzene	50	50.1	100	70-130
108-86-1	Bromobenzene	50	57.6	115	70-130
74-97-5	Bromochloromethane	50	49.5	99	70-130
75-27-4	Bromodichloromethane	50	61.1	122	70-130
75-25-2	Bromoform	50	60.8	122	70-130
74-83-9	Bromomethane	50	50.9	102	70-130
78-93-3	2-Butanone (MEK)	50	56.6	113	70-130
104-51-8	n-Butylbenzene	50	58.6	117	70-130
135-98-8	sec-Butylbenzene	50	55.3	111	70-130
98-06-6	tert-Butylbenzene	50	56.7	113	70-130
75-15-0	Carbon disulfide	50	43.5	87	70-130
56-23-5	Carbon tetrachloride	50	67.0	134* a	70-130
108-90-7	Chlorobenzene	50	53.0	106	70-130
75-00-3	Chloroethane	50	48.1	96	70-130
110-75-8	2-Chloroethyl vinyl ether	50	33.8	68* a	70-130
67-66-3	Chloroform	50	50.7	101	70-130
74-87-3	Chloromethane	50	52.9	106	70-130
95-49-8	o-Chlorotoluene	50	52.4	105	70-130
106-43-4	p-Chlorotoluene	50	54.2	108	70-130
124-48-1	Dibromochloromethane	50	59.5	119	70-130
95-50-1	1,2-Dichlorobenzene	50	55.7	111	70-130
541-73-1	1,3-Dichlorobenzene	50	56.4	113	70-130
106-46-7	1,4-Dichlorobenzene	50	55.0	110	70-130
75-71-8	Dichlorodifluoromethane	50	60.4	121	70-130
75-34-3	1,1-Dichloroethane	50	45.1	90	70-130
107-06-2	1,2-Dichloroethane	50	56.8	114	70-130
75-35-4	1,1-Dichloroethene	50	48.8	98	70-130
156-59-2	cis-1,2-Dichloroethene	50	46.4	93	70-130
156-60-5	trans-1,2-Dichloroethene	50	45.2	90	70-130
78-87-5	1,2-Dichloropropane	50	46.6	93	70-130
142-28-9	1,3-Dichloropropane	50	53.1	106	70-130
594-20-7	2,2-Dichloropropane	50	60.4	121	70-130
563-58-6	1,1-Dichloropropene	50	53.7	107	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	47.7	95	70-130
10061-02-6	trans-1,3-Dichloropropene	50	53.0	106	70-130
123-91-1	1,4-Dioxane	250	221	88	70-130
97-63-2	Ethyl methacrylate	50	45.4	91	77-137
100-41-4	Ethylbenzene	50	58.6	117	70-130
87-68-3	Hexachlorohutadiene	50	64.4	129	70-130
591-78-6	2-Hexanone	50	64.2	128	70-130
98-82-8	Isopropylbenzene	50	55.8	112	70-130
99-87-6	p-Isopropyltoluene	50	60.8	122	70-130
1634-04-4	Methyl Tert Butyl Ether	50	47.4	95	70-130
108-10-1	4-Methyl-2-pentanone (M1BK)	50	42.5	85	70-130
74-95-3	Methylene bromide	50	55.2	110	70-130
75-09-2	Methylene chloride	50	44.9	90	70-130
91-20-3	Naphthalene	50	48.9	98	70-130
103-65-1	n-Propylbenzene	50	53.5	107	70-130
100-42-5	Styrene	50	59.2	118	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	67.3	135* a	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	55.0	110	70-130
127-18-4	Tetrachloroethene	50	60.2	120	70-130
108-88-3	Toluene	50	51.5	103	70-130
87-61-6	1,2,3-Trichlorobenzene	50	55.8	112	70-130
120-82-1	1,2,4-Trichlorobenzene	50	57.0	114	70-130
71-55-6	1,1,1-Trichloroethane	50	56.7	113	70-130
79-00-5	1,1,2-Trichloroethane	50	50.7	101	70-130
79-01-6	Trichloroethene	50	52.4	105	70-130
75-69-4	Trichlorofluoromethane	50	56.5	113	70-130
96-18-4	1,2,3-Trichloropropane	50	53.3	107	70-130
95-63-6	1,2,4-Trimethylbenzene	50	57.7	115	70-130
108-67-8	1,3,5-Trimethylbenzene	50	58.2	116	70-130
108-05-4	Vinyl Acetate	50	49.9	100	70-130
75-01-4	Vinyl chloride	50	45.1	90	70-130
	m,p-Xylene	100	117	117	70-130
95-47-6	o-Xylene	50	58.4	117	70-130
1330-20-7	Xylene (total)	150	176	117	70-130

* = Outside of Control Limits.

6.2.2

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19724-5MS	H60589.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5MSD	H60590.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5	H60582.D	1	04/20/13	AMY	n/a	n/a	MSH2003

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

CAS No.	Compound	MC19724-5 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	43.4	87	7	70-130/30
107-02-8	Acrolein	ND		250	136	54* a	134	54* a	1	70-130/30
107-13-1	Acrylonitrile	ND		50	36.3	73	38.3	77	5	70-130/30
71-43-2	Benzene	172		50	217	90	212	80	2	70-130/30
108-86-1	Bromobenzene	ND		50	60.2	120	60.2	120	0	70-130/30
74-97-5	Bromochloromethane	ND		50	54.3	109	54.0	108	1	70-130/30
75-27-4	Bromodichloromethane	ND		50	62.5	125	59.9	120	4	70-130/30
75-25-2	Bromoform	ND		50	58.4	117	58.1	116	1	70-130/30
74-83-9	Bromomethane	ND		50	54.5	109	53.1	106	3	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	42.5	85	43.1	86	1	70-130/30
104-51-8	n-Butylbenzene	ND		50	60.9	122	59.3	119	3	70-130/30
135-98-8	sec-Bntylbenzene	ND		50	59.7	119	57.7	115	3	70-130/30
98-06-6	tert-Butylbenzene	ND		50	60.2	120	59.8	120	1	70-130/30
75-15-0	Carbon disulfide	ND		50	40.6	81	40.6	81	0	70-130/30
56-23-5	Carbon tetrachloride	ND		50	66.6	133* a	64.0	128	4	70-130/30
108-90-7	Chlorobenzene	ND		50	57.0	114	55.7	111	2	70-130/30
75-00-3	Chloroethane	ND		50	51.1	102	50.5	101	1	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	1.4	3* a	ND	0* a	200* b	70-130/30
67-66-3	Chloroform	ND		50	55.9	112	54.2	108	3	70-130/30
74-87-3	Chloromethane	ND		50	57.0	114	57.2	114	0	70-130/30
95-49-8	o-Chlorotoluene	ND		50	55.1	110	54.6	109	1	70-130/30
106-43-4	p-Chlorotolnene	ND		50	57.6	115	57.3	115	1	70-130/30
124-48-1	Dibromochloromethane	ND		50	59.0	118	57.3	115	3	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	57.2	114	56.3	113	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	58.7	117	57.0	114	3	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	58.6	117	58.1	116	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	58.7	117	56.5	113	4	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	51.1	102	49.6	99	3	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	57.7	115	55.7	111	4	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	56.0	112	53.3	107	5	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	51.7	103	50.4	101	3	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	52.7	105	50.9	102	3	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	49.3	99	49.1	98	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	57.2	114	57.0	114	0	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	61.8	124	60.0	120	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	57.3	115	56.6	113	1	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19724-5MS	H60589.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5MSD	H60590.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5	H60582.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

6.3.1

CAS No.	Compound	MC19724-5 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	49.2	98	47.6	95	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	52.3	105	51.6	103	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	220	88	223	89	1	70-130/30
97-63-2	Ethyl methacrylate	ND		50	47.8	96	47.6	95	0	72-139/30
100-41-4	Ethylbenzene	ND		50	64.6	129	63.0	126	3	70-130/30
87-68-3	Hexachlorohutadiene	ND		50	63.0	126	62.0	124	2	70-130/30
591-78-6	2-Hexanone	ND		50	47.8	96	48.1	96	1	70-130/30
98-82-8	Isopropylbenzene	ND		50	59.9	120	59.1	118	1	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	65.1	130	63.7	127	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	51.2	102	50.2	100	2	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	44.4	89	44.9	90	1	70-130/30
74-95-3	Methylene bromide	ND		50	56.0	112	56.0	112	0	70-130/30
75-09-2	Methylene chloride	ND		50	50.3	101	49.2	98	2	70-130/30
91-20-3	Naphthalene	ND		50	47.6	95	49.3	99	4	70-130/30
103-65-1	n-Propylbenzene	ND		50	57.7	115	56.4	113	2	70-130/30
100-42-5	Styrene	ND		50	62.9	126	58.8	118	7	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	68.4	137* [a]	65.9	132* [a]	4	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	60.1	120	60.4	121	0	70-130/30
127-18-4	Tetrachloroethene	ND		50	66.4	133* [a]	65.0	130	2	70-130/30
108-88-3	Toluene	ND		50	56.2	112	54.9	110	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	52.8	106	54.3	109	3	70-130/30
120-82-1	1,2,4-Trichlorohenzene	ND		50	55.2	110	54.2	108	2	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	61.4	123	58.9	118	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	52.5	105	51.0	102	3	70-130/30
79-01-6	Trichloroethene	ND		50	55.7	111	53.4	107	4	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	53.2	106	50.4	101	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	53.1	106	54.5	109	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	61.0	122	60.2	120	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	61.7	123	61.2	122	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	53.9	108	55.0	110	2	70-130/30
75-01-4	Vinyl chloride	ND		50	45.9	92	45.8	92	0	70-130/30
	m,p-Xylene	ND		100	129	129	126	126	2	70-130/30
95-47-6	o-Xylene	ND		50	62.7	125	61.7	123	2	70-130/30
1330-20-7	Xylene (total)	ND		150	191	127	188	125	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19724-5MS	H60589.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5MSD	H60590.D	1	04/20/13	AMY	n/a	n/a	MSH2003
MC19724-5	H60582.D	1	04/20/13	AMY	n/a	n/a	MSH2003

The QC reported here applics to the following samples: Method: SW846 8260B

MC19724-2, MC19724-3, MC19724-4, MC19724-5

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
1868-53-7	Dibromofluoromethane	98%	96%	89%	70-130%
2037-26-5	Toluene-D8	99%	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	105%	107%	112%	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.

6.3.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Compound	MC19922-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	191	76	176	70	8	70-130/30
107-02-8	Acrolein	ND		1250	581	46* [a]	531	42* [a]	9	70-130/30
107-13-1	Acrylonitrile	ND		250	161	64* [a]	145	58* [a]	10	70-130/30
71-43-2	Benzene	ND		250	249	100	228	91	9	70-130/30
108-86-1	Bromobenzene	ND		250	279	112	261	104	7	70-130/30
74-97-5	Bromochloromethane	ND		250	243	97	228	91	6	70-130/30
75-27-4	Bromodichloromethane	ND		250	303	121	270	108	12	70-130/30
75-25-2	Bromoform	ND		250	299	120	269	108	11	70-130/30
74-83-9	Bromomethane	ND		250	250	100	234	94	7	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	192	77	178	71	8	70-130/30
104-51-8	n-Butylbenzene	ND		250	268	107	247	99	8	70-130/30
135-98-8	sec-Butylbenzene	ND		250	258	103	240	96	7	70-130/30
98-06-6	tert-Butylbenzene	ND		250	269	108	251	100	7	70-130/30
75-15-0	Carbon disulfide	ND		250	193	77	167	67* [a]	14	70-130/30
56-23-5	Carbon tetrachloride	ND		250	323	129	286	114	12	70-130/30
108-90-7	Chlorobenzene	ND		250	261	104	242	97	8	70-130/30
75-00-3	Chloroethane	ND		250	224	90	211	84	6	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	1.1		250	253	101	230	92	10	70-130/30
74-87-3	Chloromethane	ND		250	245	98	229	92	7	70-130/30
95-49-8	o-Chlorotoluene	ND		250	251	100	231	92	8	70-130/30
106-43-4	p-Chlorotoluene	ND		250	261	104	243	97	7	70-130/30
124-48-1	Dibromochloromethane	ND		250	290	116	268	107	8	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	266	106	246	98	8	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	272	109	250	100	8	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	270	108	254	102	6	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	278	111	255	102	9	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	221	88	199	80	10	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	283	113	255	102	10	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	232	93	210	84	10	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	228	91	209	84	9	70-130/30
156-60-5	trans-1,2-Dichloroetbene	ND		250	221	88	204	82	8	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	229	92	208	83	10	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	265	106	249	100	6	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	288	115	266	106	8	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	257	103	240	96	7	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Compound	MC19922-1 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	237	95	211	84	12	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	260	104	233	93	11	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1010	81	976	78	3	70-130/30
97-63-2	Ethyl methacrylate	ND		250	227	91	202	81	12	72-139/30
100-41-4	Ethylbenzene	ND		250	290	116	268	107	8	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	290	116	265	106	9	70-130/30
591-78-6	2-Hexanone	ND		250	219	88	205	82	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	266	106	247	99	7	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	290	116	270	108	7	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	232	93	209	84	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	206	82	188	75	9	70-130/30
74-95-3	Methylene bromide	ND		250	274	110	249	100	10	70-130/30
75-09-2	Methylene chloride	ND		250	215	86	200	80	7	70-130/30
91-20-3	Naphthalene	ND		250	226	90	213	85	6	70-130/30
103-65-1	n-Propylbenzene	ND		250	252	101	235	94	7	70-130/30
100-42-5	Styrene	ND		250	291	116	264	106	10	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	329	132* [a]	300	120	9	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	280	112	254	102	10	70-130/30
127-18-4	Tetrachloroethene	ND		250	295	118	274	110	7	70-130/30
108-88-3	Toluene	ND		250	256	102	235	94	9	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	250	100	237	95	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	258	103	239	96	8	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	278	111	250	100	11	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	255	102	224	90	13	70-130/30
79-01-6	Trichloroethene	ND		250	255	102	231	92	10	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	266	106	238	95	11	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	255	102	236	94	8	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	277	111	257	103	7	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	277	111	258	103	7	70-130/30
108-05-4	Vinyl Acetate	ND		250	255	102	234	94	9	70-130/30
75-01-4	Vinyl chloride	ND		250	211	84	198	79	6	70-130/30
	m,p-Xylene	ND		500	584	117	535	107	9	70-130/30
95-47-6	o-Xylene	ND		250	289	116	267	107	8	70-130/30
1330-20-7	Xylene (total)	ND		750	873	116	802	107	8	70-130/30

* = Outside of Control Limits.

6.3.2

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19724-1, MC19724-6

CAS No.	Surrogate Recoveries	MS	MSD	MC19922-1	Limits
1868-53-7	Dibromofluoromethane	93%	96%	89%	70-130%
2037-26-5	Toluene-D8	102%	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	105%	105%	111%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

6.3.2

Volatile Internal Standard Area Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2003-CC1993	Injection Date:	04/20/13
Lab File ID:	H60576.D	Injection Time:	11:38
Instrument ID:	GCMSH	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	206783	8.70	291185	9.57	126113	12.83	161897	15.39	44462	6.27
Upper Limit [a]	413566	9.20	582370	10.07	252226	13.33	323794	15.89	88924	6.77
Lower Limit [b]	103392	8.20	145593	9.07	63057	12.33	80949	14.89	22231	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2003-BS	203004	8.70	289060	9.57	12621I	12.83	157390	15.39	42479	6.27
MSH2003-MB	I85208	8.70	256543	9.57	106576	12.83	131041	15.40	37759	6.28
ZZZZZZ	175579	8.70	238634	9.57	98939	12.83	119034	15.40	33288	6.28
MC19724-5	170754	8.71	242923	9.57	99220	12.83	116397	15.40	33677	6.28
ZZZZZZ	I66781	8.70	223337	9.57	93100	12.83	110339	15.40	32563	6.28
ZZZZZZ	160052	8.70	218085	9.57	91698	12.83	107539	15.40	32094	6.28
ZZZZZZ	157989	8.70	221754	9.57	90785	12.83	105387	15.40	31997	6.28
ZZZZZZ	153724	8.70	227919	9.57	89980	12.83	103593	15.40	30062	6.28
ZZZZZZ	146820	8.70	219312	9.57	86661	12.83	106900	15.40	29882	6.28
ZZZZZZ	147805	8.70	217597	9.57	83992	12.83	100017	15.40	29869	6.28
MC19724-5MS	155200	8.70	223290	9.57	99688	12.83	129664	15.40	31592	6.28
MC19724-5MSD	160947	8.70	231883	9.57	102713	12.83	131329	15.40	33485	6.27
ZZZZZZ	173898	8.70	274570	9.58	108576	12.83	145369	15.39	50776	6.27
MC19724-2	189758	8.70	276843	9.57	107192	12.83	124341	15.40	39096	6.28
MC19724-3	182820	8.70	265614	9.57	102353	12.83	121131	15.40	38433	6.28
MC19724-4	169881	8.70	247855	9.57	98504	12.83	118643	15.40	35469	6.29
ZZZZZZ	173367	8.70	261889	9.57	102412	12.83	119898	15.40	35840	6.28
ZZZZZZ	164653	8.70	236286	9.57	94868	12.83	113340	15.40	32071	6.27
ZZZZZZ	157482	8.70	215491	9.57	92249	12.83	108515	15.40	31989	6.28
ZZZZZZ	158349	8.70	214989	9.57	89560	12.83	105992	15.40	32530	6.28

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 cbeck 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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2004-CC1993	Injection Date:	04/21/13
Lab File ID:	H60608.D	Injection Time:	08:24
Instrument ID:	GCMSH	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	154965	8.70	218326	9.57	99937	12.83	129958	15.39	29574	6.28
Upper Limit [a]	309930	9.20	436652	10.07	199874	13.33	259916	15.89	59148	6.78
Lower Limit [b]	77483	8.20	109163	9.07	49969	12.33	64979	14.89	14787	5.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2004-BS	I63020	8.70	229494	9.57	104143	12.83	133312	15.39	33441	6.27
MSH2004-MB	145550	8.70	197728	9.57	84013	12.83	101252	15.40	29106	6.28
ZZZZZZ	147365	8.70	203260	9.57	87132	12.83	102479	15.40	27781	6.29
ZZZZZZ	144580	8.70	194111	9.57	83290	12.83	97794	15.40	27275	6.28
ZZZZZZ	141022	8.70	189693	9.57	82031	12.83	98340	15.40	27036	6.27
ZZZZZZ	142710	8.70	190282	9.57	81102	12.83	96563	15.40	25281	6.28
ZZZZZZ	145496	8.70	194678	9.57	82263	12.83	100439	15.40	28858	6.28
MC19900-13	142470	8.70	192688	9.57	82532	12.83	99547	15.40	27747	6.28
ZZZZZZ	138544	8.70	188517	9.57	80004	12.83	91400	15.40	27888	6.29
ZZZZZZ	143120	8.70	198907	9.57	82208	12.83	101868	15.39	27880	6.28
ZZZZZZ	156028	8.70	212661	9.56	91569	12.83	119347	15.39	28890	6.28
ZZZZZZ	173931	8.70	233175	9.57	97601	12.83	123210	15.40	35917	6.28
MC19900-13MS	189888	8.70	268508	9.57	114380	12.83	148674	15.39	37942	6.27
MC19900-13MSD	193472	8.70	271159	9.57	117784	12.83	151552	15.39	38346	6.28
ZZZZZZ	175882	8.70	246929	9.57	98499	12.83	119937	15.40	34796	6.27
ZZZZZZ	181038	8.70	259902	9.57	101898	12.83	119582	15.40	36324	6.28
MC19724-1 [c]	168624	8.70	230539	9.57	94123	12.83	111269	15.40	33289	6.28
ZZZZZZ	159092	8.70	226057	9.57	89699	12.83	104812	15.40	31168	6.28
ZZZZZZ	150930	8.70	216411	9.57	86931	12.83	100037	15.40	28783	6.28
ZZZZZZ	145114	8.70	217266	9.57	84982	12.83	95656	15.40	27874	6.27
ZZZZZZ	145551	8.70	207135	9.57	84782	12.83	100392	15.40	27657	6.27
ZZZZZZ	138148	8.70	196399	9.57	79531	12.83	94309	15.40	26066	6.28

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) Confirmation run.

Volatile Internal Standard Area Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2005-CC1993	Injection Date:	04/22/13
Lab File ID:	H60638.D	Injection Time:	08:42
Instrument ID:	GCMSH	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	145518	8.70	203839	9.57	92365	12.82	122447	15.39	25920	6.27
Upper Limit [a]	291036	9.20	407678	10.07	184730	13.32	244894	15.89	51840	6.77
Lower Limit [b]	72759	8.20	101920	9.07	46183	12.32	61224	14.89	12960	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2005-BS	153131	8.70	210431	9.57	97000	12.82	124939	15.39	29597	6.27
MSH2005-MB	141357	8.70	190495	9.57	79390	12.83	97297	15.40	27529	6.28
ZZZZZZ	145372	8.70	194657	9.57	82893	12.82	97308	15.40	28465	6.27
ZZZZZZ	136877	8.70	185060	9.57	78268	12.83	93270	15.40	25790	6.28
ZZZZZZ	140480	8.70	184085	9.57	79168	12.83	102070	15.39	26872	6.28
ZZZZZZ	151215	8.70	205268	9.57	84612	12.83	112538	15.39	30302	6.28
MC19724-6	145544	8.70	190398	9.57	82699	12.83	96284	15.40	25141	6.28
ZZZZZZ	146421	8.70	207407	9.56	83715	12.83	105266	15.39	26809	6.27
MC19724-1	77186	8.70	103196	9.57	43628[c]	12.82	51114[c]	15.39	13455	6.28
ZZZZZZ	137069	8.70	186849	9.57	80208	12.83	101333	15.40	28083	6.28
ZZZZZZ	139308	8.70	192444	9.57	79270	12.83	94053	15.40	26423	6.28
ZZZZZZ	137830	8.70	187984	9.57	78530	12.83	94049	15.40	27423	6.28
ZZZZZZ	133472	8.70	185664	9.57	77724	12.83	92782	15.40	26452	6.27
MC19922-1MS	142688	8.70	195289	9.57	89389	12.82	119300	15.39	27185	6.27
MC19922-1MSD	147065	8.70	202105	9.57	90566	12.83	118534	15.39	27790	6.27
MC19922-1	145886	8.70	197741	9.57	83263	12.83	102309	15.39	29211	6.27
ZZZZZZ	141347	8.70	190076	9.57	79817	12.83	96540	15.39	27936	6.28
ZZZZZZ	134414	8.70	178829	9.57	75395	12.83	86839	15.40	25563	6.28
ZZZZZZ	135303	8.70	177608	9.57	77080	12.83	86755	15.40	26425	6.27
ZZZZZZ	133099	8.70	178493	9.57	76610	12.83	88204	15.40	27318	6.28

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 dne to possible matrix interference. Confirmed by reanalysis.

6.4.3

Volatile Surrogate Recovery Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19724-1	H60627.D	88.0	99.0	113.0
MC19724-1	H60651.D	89.0	98.0	112.0
MC19724-2	H60594.D	84.0	96.0	113.0
MC19724-3	H60595.D	84.0	97.0	114.0
MC19724-4	H60596.D	87.0	99.0	111.0
MC19724-5	H60582.D	89.0	100.0	112.0
MC19724-6	H60649.D	88.0	103.0	115.0
MC19724-5MS	H60589.D	98.0	99.0	105.0
MC19724-5MSD	H60590.D	96.0	99.0	107.0
MC19922-1MS	H60656.D	93.0	102.0	105.0
MC19922-1MSD	H60657.D	96.0	99.0	105.0
MSH2003-BS	H60577.D	93.0	100.0	107.0
MSH2003-MB	H60579.D	86.0	102.0	109.0
MSH2005-BS	H60639.D	94.0	101.0	104.0
MSH2005-MB	H60642.D	89.0	103.0	113.0

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MB	U13643.D	1	04/16/13	NS	04/15/13	OP32661	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-5

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Diruethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Diuitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ng/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MB	U13643.D	1	04/16/13	NS	04/15/13	OP32661	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-5

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		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	78%	30-130%
321-60-8	2-Fluorobiphenyl	78%	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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-1, MC19724-2, MC19724-3, MC19724-4

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	3.5	5.0	0.51	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Auiline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ng/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ng/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-1, MC19724-2, MC19724-3, MC19724-4

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroauiline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	53%	15-110%
4165-62-2	Phenol-d5	34%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	92%	30-130%
321-60-8	2-Fluorobiphenyl	88%	30-130%
1718-51-0	Terphenyl-d14	89%	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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32662-MB	I82661.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19724-5

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	Anthraceue	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	Beuzo(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-Methylnaphtbalene	ND	0.20	0.052	ug/l	
85-01-8	Pheuanthrene	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	76%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

Method Blank Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-MB	I82727.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19724-1, MC19724-2, MC19724-3, MC19724-4

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	ND	0.10	0.018	ug/l	
56-55-3	Benzo(a)authracene	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	ng/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	48%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	79%	15-110%
4165-60-0	Nitrobenzene-d5	81%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-BS	U13644.D	1	04/16/13	NS	04/15/13	OP32661	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	35.6	36	30-130
95-57-8	2-Chlorophenol	100	97.4	97	30-130
59-50-7	4-Chloro-3-methyl phenol	100	111	111	30-130
120-83-2	2,4-Dichlorophenol	100	113	113	30-130
105-67-9	2,4-Dimethylphenol	100	109	109	30-130
51-28-5	2,4-Dinitrophenol	100	149	149* a	30-130
534-52-1	4,6-Dinitro-o-cresol	100	136	136* a	30-130
95-48-7	2-Methylphenol	100	85.3	85	30-130
	3&4-Methylphenol	200	170	85	30-130
88-75-5	2-Nitrophenol	100	111	111	30-130
100-02-7	4-Nitrophenol	100	41.2	41	30-130
87-86-5	Pentachlorophenol	100	106	106	30-130
108-95-2	Phenol	100	43.2	43	30-130
95-95-4	2,4,5-Trichlorophenol	100	114	114	30-130
88-06-2	2,4,6-Trichlorophenol	100	112	112	30-130
62-53-3	Aniline	50	22.6	45	40-140
101-55-3	4-Bromophenyl phenyl ether	50	44.0	88	40-140
85-68-7	Butyl benzyl phthalate	50	32.5	65	40-140
100-51-6	Benzyl Alcohol	50	38.2	76	40-140
91-58-7	2-Chloronaphthalene	100	70.6	71	40-140
106-47-8	4-Chloroaniline	50	35.5	71	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	43.3	87	40-140
111-44-4	bis(2-Chloroethyl)ether	50	68.4	137	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	46.8	94	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	43.6	87	40-140
122-66-7	1,2-Diphenylhydrazine	50	42.0	84	40-140
121-14-2	2,4-Dinitrotolnene	100	85.3	85	40-140
606-20-2	2,6-Dinitrotoluene	100	78.1	78	40-140
91-94-1	3,3'-Dichlorobenzidine	50	5.7	11* b	40-140
132-64-9	Dibenzofuran	50	42.5	85	40-140
84-74-2	Di-n-butyl phthalate	50	39.1	78	40-140
117-84-0	Di-n-octyl phthalate	50	49.0	98	40-140
84-66-2	Diethyl phthalate	50	41.5	83	40-140
131-11-3	Dimethyl phthalate	50	15.2	30* b	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	45.0	90	40-140
118-74-1	Hexachlorobenzene	100	84.4	84	40-140

* = Outside of Control Limits.

7.2.1

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Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-BS	U13644.D	1	04/16/13	NS	04/15/13	OP32661	MSU690

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	100	39.6	40	40-140
67-72-1	Hexachloroethane	100	57.4	57	40-140
78-59-1	Isophorone	100	83.2	83	40-140
88-74-4	2-Nitroaniline	50	44.0	88	40-140
99-09-2	3-Nitroaniline	50	35.0	70	40-140
100-01-6	4-Nitroaniline	50	40.4	81	40-140
98-95-3	Nitrobenzene	100	80.9	81	40-140
62-75-9	n-Nitrosodimethylamine	50	26.8	54	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	42.5	85	40-140
86-30-6	N-Nitrosodiphenylamine	50	42.7	85	40-140
110-86-1	Pyridine	50	20.5	41	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	48%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	90%	15-110%
4165-60-0	Nitrobenzene-d5	86%	30-130%
321-60-8	2-Fluorobiphenyl	83%	30-130%
1718-51-0	Terphenyl-d14	86%	30-130%

(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.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-1, MC19724-2, MC19724-3, MC19724-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	35.5	36	30-130
95-57-8	2-Chlorophenol	100	108	108	30-130
59-50-7	4-Chloro-3-methyl phenol	100	113	113	30-130
120-83-2	2,4-Dichlorophenol	100	120	120	30-130
105-67-9	2,4-Dimethylphenol	100	110	110	30-130
51-28-5	2,4-Dinitrophenol	100	119	119	30-130
534-52-1	4,6-Dinitro-o-cresol	100	127	127	30-130
95-48-7	2-Methylphenol	100	90.0	90	30-130
	3&4-Methylphenol	200	183	92	30-130
88-75-5	2-Nitrophenol	100	123	123	30-130
100-02-7	4-Nitrophenol	100	59.8	60	30-130
87-86-5	Pentachlorophenol	100	125	125	30-130
108-95-2	Phenol	100	56.2	56	30-130
95-95-4	2,4,5-Trichlorophenol	100	130	130	30-130
88-06-2	2,4,6-Trichlorophenol	100	126	126	30-130
62-53-3	Aniline	50	19.9	40	40-140
101-55-3	4-Bromophenyl phenyl ether	50	45.9	92	40-140
85-68-7	Bntyl benzyl phthalate	50	46.0	92	40-140
100-51-6	Benzyl Alcohol	50	28.2	56	40-140
91-58-7	2-Chloronaphthalene	50	46.6	93	40-140
106-47-8	4-Chloroaniline	50	32.1	64	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	45.6	91	40-140
111-44-4	bis(2-Chloroethyl)ether	50	42.7	85	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	51.9	104	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	46.9	94	40-140
122-66-7	1,2-Diphenylhydrazine	50	45.8	92	40-140
121-14-2	2,4-Dinitrotoluene	50	47.2	94	40-140
606-20-2	2,6-Dinitrotoluene	50	50.3	101	40-140
91-94-1	3,3'-Dichlorobenzidine	50	5.9	12* a	40-140
132-64-9	Dibenzofuran	50	44.3	89	40-140
84-74-2	Di-n-butyl phthalate	50	46.2	92	40-140
117-84-0	Di-n-octyl phthalate	50	52.3	105	40-140
84-66-2	Diethyl phthalate	50	44.8	90	40-140
131-11-3	Dimethyl phthalate	50	33.3	67	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.4	97	40-140
118-74-1	Hexachlorobenzene	50	46.8	94	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-1, MC19724-2, MC19724-3, MC19724-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	17.7	35* a	40-140
67-72-1	Hexachloroethane	50	38.5	77	40-140
78-59-1	Isophorone	50	49.0	98	40-140
88-74-4	2-Nitroaniline	50	47.8	96	40-140
99-09-2	3-Nitroaniline	50	35.6	71	40-140
100-01-6	4-Nitroaniline	50	42.4	85	40-140
98-95-3	Nitrobenzene	50	44.7	89	40-140
62-75-9	n-Nitrosodimethylamine	50	28.6	57	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	48.2	96	40-140
86-30-6	N-Nitrosodiphenylamine	50	45.4	91	40-140
110-86-1	Pyridine	50	21.8	44	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	56%	15-110%
4165-62-2	Phenol-d5	38%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	93%	30-130%
321-60-8	2-Fluorobiphenyl	90%	30-130%
1718-51-0	Terphenyl-d14	90%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32662-BS	I82662.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19724-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	40.1	80	40-140
208-96-8	Acenaphthylene	50	31.9	64	40-140
120-12-7	Anthracene	50	41.7	83	40-140
56-55-3	Benzo(a)anthracene	50	43.4	87	40-140
50-32-8	Benzo(a)pyrene	50	38.4	77	40-140
205-99-2	Benzo(b)fluoranthene	50	42.2	84	40-140
191-24-2	Benzo(g,h,i)perylene	50	47.6	95	40-140
207-08-9	Benzo(k)fluoranthene	50	42.5	85	40-140
218-01-9	Chrysene	50	41.5	83	40-140
53-70-3	Dibenzo(a,h)anthracene	50	42.0	84	40-140
206-44-0	Fluoranthene	50	43.2	86	40-140
86-73-7	Fluorene	50	37.7	75	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.2	82	40-140
90-12-0	1-Methylnaphthalene	50	38.5	77	40-140
91-57-6	2-Methylnaphthaleue	50	37.0	74	40-140
85-01-8	Phenanthrene	50	41.8	84	40-140
129-00-0	Pyrene	50	42.8	86	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	74%	30-130%
1718-51-0	Terphenyl-d14	83%	30-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-BS	I82728.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19724-1, MC19724-2, MC19724-3, MC19724-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.5	79	40-140
208-96-8	Acenaphthylene	50	31.2	62	40-140
120-12-7	Anthracene	50	40.8	82	40-140
56-55-3	Benzo(a)anthracene	50	41.3	83	40-140
50-32-8	Benzo(a)pyrene	50	36.5	73	40-140
205-99-2	Benzo(b)fluoranthene	50	38.3	77	40-140
191-24-2	Benzo(g,h,i)perylene	50	45.0	90	40-140
207-08-9	Benzo(k)fluoranthene	50	42.4	85	40-140
218-01-9	Chrysene	50	39.4	79	40-140
53-70-3	Dibenzo(a,h)anthracene	50	40.3	81	40-140
206-44-0	Fluoranthene	50	41.3	83	40-140
86-73-7	Fluorene	50	37.2	74	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.5	79	40-140
90-12-0	1-Methylnaphthalene	50	38.4	77	40-140
91-57-6	2-Methylnaphthalene	50	37.8	76	40-140
85-01-8	Phenanthrene	50	40.6	81	40-140
129-00-0	Pyrene	50	40.8	82	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	50%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	15-110%
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	76%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MS	U13645.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
OP32661-MSD	U13646.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
MC19724-5	U13718.D	1	04/19/13	NS	04/15/13	OP32661	MSU694

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-5

7.3.1

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CAS No.	Compound	MC19724-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		111	59.9	54	62.5	56	4	30-130/20
95-57-8	2-Chlorophenol	ND		111	110	99	105	95	5	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		111	130	117	126	113	3	30-130/20
120-83-2	2,4-Dichlorophenol	ND		111	128	115	125	113	2	30-130/20
105-67-9	2,4-Dimethylphenol	ND		111	124	112	113	102	9	30-130/20
51-28-5	2,4-Dinitrophenol	ND		111	173	156* a	170	153* a	2	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		111	155	140* a	158	142* a	2	30-130/20
95-48-7	2-Methylphenol	ND		111	110	99	96.9	87	13	30-130/20
	3&4-Methylphenol	ND		111	224	112	193	87	15	30-130/20
88-75-5	2-Nitrophenol	ND		111	125	113	126	113	1	30-130/20
100-02-7	4-Nitropheuol	ND		111	54.1	49	51.3	46	5	30-130/20
87-86-5	Pentachlorophenol	ND		111	124	112	111	100	11	30-130/20
108-95-2	Phenol	ND		111	63.6	57	49.7	45	25* b	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		111	130	117	134	121	3	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		111	129	116	127	114	2	30-130/20
62-53-3	Aniline	ND		55.6	22.0	40	21.2	38* c	4	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		55.6	45.5	82	44.5	80	2	40-140/20
85-68-7	Butyl benzyl phthalate	ND		55.6	48.0	86	46.0	83	4	40-140/20
100-51-6	Benzyl Alcohol	ND		55.6	37.3	67	34.6	62	8	40-140/20
91-58-7	2-Chloronaphthalene	ND		111	77.4	70	77.3	70	0	40-140/20
106-47-8	4-Chloroaniline	ND		55.6	35.4	64	35.2	63	1	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		55.6	46.8	84	44.8	81	4	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		55.6	76.4	138	70.4	127	8	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		55.6	48.6	87	46.6	84	4	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		55.6	45.8	82	44.7	80	2	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		55.6	43.9	79	45.8	82	4	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		111	92.2	83	92.9	84	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		111	84.5	76	83.4	75	1	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		55.6	5.5	10* c	5.5	10* c	0	40-140/20
132-64-9	Dibenzofuran	ND		55.6	45.1	81	45.3	82	0	40-140/20
84-74-2	Di-n-butyl phthalate	ND		55.6	44.3	80	46.1	83	4	40-140/20
117-84-0	Di-n-octyl phthalate	ND		55.6	46.7	84	46.2	83	1	40-140/20
84-66-2	Diethyl phthalate	ND		55.6	47.3	85	48.4	87	2	40-140/20
131-11-3	Dimethyl phthalate	ND		55.6	46.4	84	41.5	75	11	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		55.6	43.8	79	43.7	79	0	40-140/20
118-74-1	Hexachlorobenzene	ND		111	87.1	78	87.6	79	1	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32661-MS	U13645.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
OP32661-MSD	U13646.D	1	04/16/13	NS	04/15/13	OP32661	MSU690
MC19724-5	U13718.D	1	04/19/13	NS	04/15/13	OP32661	MSU694

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-5

CAS No.	Compound	MC19724-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		111	47.5	43	40.2	36* c	17	40-140/20
67-72-1	Hexachloroethane	ND		111	65.0	59	60.8	55	7	40-140/20
78-59-1	Isophorone	ND		111	91.4	82	91.4	82	0	40-140/20
88-74-4	2-Nitroaniline	ND		55.6	48.6	87	46.4	84	5	40-140/20
99-09-2	3-Nitroaniline	ND		55.6	38.4	69	38.8	70	1	40-140/20
100-01-6	4-Nitroaniline	ND		55.6	43.2	78	41.9	75	3	40-140/20
98-95-3	Nitrobenzene	ND		111	89.7	81	87.3	79	3	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		55.6	30.2	54	27.9	50	8	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		55.6	43.9	79	43.3	78	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		55.6	43.6	78	45.3	82	4	40-140/20
110-86-1	Pyridine	ND		55.6	21.5	39* c	21.0	38* c	2	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
367-12-4	2-Fluorophenol	48%	45%	40%	15-110%
4165-62-2	Phenol-d5	43%	33%	29%	15-110%
118-79-6	2,4,6-Tribromophenol	85%	86%	80%	15-110%
4165-60-0	Nitrobenzene-d5	81%	78%	75%	30-130%
321-60-8	2-Fluorobiphenyl	78%	76%	72%	30-130%
1718-51-0	Terphenyl-d14	71%	71%	69%	30-130%

(a) Outside control limits. Associated samples are non-detect for this compound.
(b) High RPD due to possible matrix interference and/or sample non-homogeneity.
(c) Outside control limits due to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-1, MC19724-2, MC19724-3, MC19724-4

CAS No.	Compound	MC19800-2 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	60.7	61	59.1	59	3	30-130/20
95-57-8	2-Chlorophenol	ND		100	111	111	112	112	1	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	119	119	117	117	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	126	126	125	125	1	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	113	113	114	114	1	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	128	128	123	123	4	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	136	136* [a]	135	135* [a]	1	30-130/20
95-48-7	2-Methylphenol	ND		100	91.3	91	92.1	92	1	30-130/20
	3&4-Methylphenol	ND		200	189	95	185	93	2	30-130/20
88-75-5	2-Nitrophenol	ND		100	130	130	131	131* [a]	1	30-130/20
100-02-7	4-Nitrophenol	ND		100	60.9	61	60.6	61	0	30-130/20
87-86-5	Pentachlorophenol	ND		100	138	138* [a]	131	131* [a]	5	30-130/20
108-95-2	Phenol	2.7	J	100	52.1	49	52.5	50	1	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	137	137* [a]	134	134* [a]	2	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	134	134* [a]	130	130	3	30-130/20
62-53-3	Aniline	ND		50	21.8	44	23.2	46	6	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	46.8	94	46.2	92	1	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	48.3	97	47.2	94	2	40-140/20
100-51-6	Benzyl Alcohol	ND		50	29.3	59	31.4	63	7	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	47.9	96	47.7	95	0	40-140/20
106-47-8	4-Chloroaniline	ND		50	30.6	61	29.7	59	3	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	45.6	91	45.6	91	0	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	42.7	85	44.6	89	4	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	52.1	104	51.9	104	0	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	47.3	95	46.8	94	1	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	47.2	94	47.8	96	1	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	47.8	96	47.4	95	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	50.5	101	50.6	101	0	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	5.7	11* [b]	6.0	12* [b]	5	40-140/20
132-64-9	Dibenzofuran	ND		50	45.4	91	44.4	89	2	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	47.1	94	46.2	92	2	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	54.1	108	52.5	105	3	40-140/20
84-66-2	Diethyl phthalate	ND		50	46.0	92	45.2	90	2	40-140/20
131-11-3	Dimethyl phthalate	ND		50	37.5	75	35.4	71	6	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	3.1		50	49.8	93	48.8	91	2	40-140/20
118-74-1	Hexachlorobenzene	ND		50	48.9	98	48.0	96	2	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19724-1, MC19724-2, MC19724-3, MC19724-4

7.3.2

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CAS No.	Compound	MC19800-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	19.2	38* [b]	18.4	37* [b]	4	40-140/20
67-72-1	Hexachloroethane	ND		50	40.2	80	42.2	84	5	40-140/20
78-59-1	Isophorone	ND		50	49.2	98	49.8	100	1	40-140/20
88-74-4	2-Nitroaniline	ND		50	48.3	97	48.4	97	0	40-140/20
99-09-2	3-Nitroaniline	ND		50	32.1	64	32.7	65	2	40-140/20
100-01-6	4-Nitroaniline	ND		50	42.5	85	43.4	87	2	40-140/20
98-95-3	Nitrobenzene	ND		50	45.1	90	47.0	94	4	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	27.7	55	28.3	57	2	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	47.9	96	48.3	97	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	47.1	94	46.1	92	2	40-140/20
110-86-1	Pyridine	ND		50	21.9	44	21.2	42	3	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-2	Limits
367-12-4	2-Fluorophenol	52%	53%	49%	15-110%
4165-62-2	Phenol-d5	35%	35%	32%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	95%	98%	15-110%
4165-60-0	Nitrobenzene-d5	93%	95%	89%	30-130%
321-60-8	2-Fluorobiphenyl	91%	92%	87%	30-130%
1718-51-0	Terphenyl-d14	91%	93%	93%	30-130%

(a) Ootside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32662-MS	I82663.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
OP32662-MSD	I82664.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073
MC19724-5	I82672.D	1	04/17/13	NS	04/15/13	OP32662	MSI3073

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19724-5

CAS No.	Compound	MC19724-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		55.6	42.1	76	42.4	76	1	40-140/20
208-96-8	Acenaphthylene	ND		55.6	33.7	61	33.8	61	0	40-140/20
120-12-7	Anthracene	ND		55.6	43.9	79	43.9	79	0	40-140/20
56-55-3	Benzo(a)anthracene	ND		55.6	43.1	78	41.0	74	5	40-140/20
50-32-8	Benzo(a)pyrene	ND		55.6	37.8	68	36.2	65	4	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		55.6	39.7	71	37.9	68	5	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		55.6	47.0	85	45.0	81	4	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		55.6	44.1	79	42.7	77	3	40-140/20
218-01-9	Chrysene	ND		55.6	41.1	74	39.3	71	4	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		55.6	41.6	75	40.1	72	4	40-140/20
206-44-0	Fluoranthene	ND		55.6	44.4	80	43.5	78	2	40-140/20
86-73-7	Fluorene	ND		55.6	39.8	72	40.3	73	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		55.6	41.0	74	39.4	71	4	40-140/20
90-12-0	1-Methylnaphthalene	ND		55.6	41.2	74	40.4	73	2	40-140/20
91-57-6	2-Methylnaphthalene	ND		55.6	40.3	73	39.0	70	3	40-140/20
85-01-8	Phenanthrene	ND		55.6	44.2	80	44.4	80	0	40-140/20
129-00-0	Pyrene	ND		55.6	43.9	79	42.8	77	3	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
4165-60-0	Nitrobenzene-d5	79%	75%	71%	30-130%
321-60-8	2-Fluorobiphenyl	72%	69%	70%	30-130%
1718-51-0	Terphenyl-d14	71%	69%	70%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-MS	I82729.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
OP32682-MSD	I82730.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
MC19800-3	I82731.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19724-1, MC19724-2, MC19724-3, MC19724-4

CAS No.	Compound	MC19800-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	39.9	80	40.1	80	1	40-140/20
208-96-8	Acenaphthylene	ND		50	31.6	63	31.8	64	1	40-140/20
120-12-7	Anthracene	ND		50	41.3	83	41.2	82	0	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	41.8	84	41.9	84	0	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	36.8	74	37.2	74	1	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	38.3	77	39.4	79	3	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	45.4	91	45.9	92	1	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	43.6	87	42.5	85	3	40-140/20
218-01-9	Chrysene	ND		50	40.4	81	39.9	80	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	40.3	81	40.6	81	1	40-140/20
206-44-0	Fluoranthene	ND		50	41.9	84	41.7	83	0	40-140/20
86-73-7	Flnorene	ND		50	37.6	75	37.4	75	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.8	80	40.0	80	1	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	40.0	80	39.9	80	0	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	39.3	79	39.2	78	0	40-140/20
85-01-8	Phenanthrene	ND		50	41.4	83	41.1	82	1	40-140/20
129-00-0	Pyrene	ND		50	41.7	83	41.5	83	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-3	Limits
367-12-4	2-Fluorophenol	49%	49%	44%	15-110%
4165-62-2	Phenol-d5	31%	32%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	80%	78%	15-110%
4165-60-0	Nitrobenzene-d5	80%	79%	77%	30-130%
321-60-8	2-Fluorobiphenyl	77%	76%	78%	30-130%
1718-51-0	Terphenyl-d14	80%	82%	81%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2952-CC2937	Injection Date:	04/19/13
Lab File ID:	F63169.D	Injection Time:	08:03
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	26965	4.06	100596	5.05	64690	6.49	121165	7.84	140401	10.63	125531	12.10
Upper Limit [a]	53930	4.56	201192	5.55	129380	6.99	242330	8.34	280802	11.13	251062	12.60
Lower Limit [b]	13483	3.56	50298	4.55	32345	5.99	60583	7.34	70201	10.13	62766	11.60
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
OP32681-MB	21226	4.06	79894	5.05	51442	6.49	95555	7.84	108323	10.62	100710	12.10
OP32681-BS	21277	4.06	80083	5.06	51007	6.49	96593	7.85	109464	10.63	101150	12.10
OP32681-MS	21834	4.06	81093	5.05	51106	6.49	95945	7.85	107570	10.63	97193	12.10
OP32681-MSD	19466	4.06	73354	5.05	46863	6.49	88333	7.84	99932	10.63	91498	12.10
MC19800-2	18953	4.06	72238	5.05	46161	6.49	85827	7.84	96461	10.62	91108	12.09
ZZZZZZ	18531	4.06	71378	5.05	45366	6.49	82508	7.84	98329	10.62	93986	12.10
ZZZZZZ	20715	4.06	76937	5.05	48376	6.49	86774	7.84	107848	10.62	101918	12.10
MC19724-1	20319	4.06	77713	5.05	49940	6.49	93335	7.84	107821	10.63	102870	12.10
MC19724-2	20374	4.06	74799	5.05	48121	6.49	88844	7.84	101827	10.62	98665	12.10
MC19724-3	23166	4.06	85839	5.05	54949	6.49	102196	7.84	115402	10.62	110980	12.10
MC19724-4	19637	4.06	74741	5.05	46722	6.49	86792	7.84	98279	10.62	88652	12.10
ZZZZZZ	17899	4.06	67412	5.05	42872	6.49	78035	7.84	89138	10.62	81087	12.10
ZZZZZZ	18353	4.06	69053	5.05	44757	6.49	79546	7.84	91283	10.62	84577	12.10
ZZZZZZ	19039	4.06	67789	5.05	42435	6.49	75658	7.84	92757	10.63	90851	12.10
ZZZZZZ	17484	4.06	65541	5.05	41935	6.49	75092	7.84	85083	10.62	78046	12.10
ZZZZZZ	16753	4.06	64226	5.05	40927	6.49	74940	7.84	85678	10.62	79138	12.10
ZZZZZZ	21424	4.06	78351	5.05	47525	6.49	87765	7.84	100055	10.62	92231	12.10
ZZZZZZ	14882	4.06	56289	5.05	36520	6.49	66449	7.84	76983	10.62	71026	12.09
ZZZZZZ	17836	4.06	66536	5.05	41919	6.49	76671	7.84	88686	10.62	81904	12.10
ZZZZZZ	17739	4.06	67482	5.05	42611	6.49	79842	7.84	91406	10.62	85552	12.09
ZZZZZZ	16939	4.06	63790	5.05	41000	6.49	74543	7.84	86084	10.62	79340	12.10
ZZZZZZ	19408	4.06	70122	5.05	42447	6.49	77859	7.84	92969	10.62	85770	12.09
ZZZZZZ	18126	4.06	67802	5.05	43620	6.49	77842	7.84	87315	10.63	81870	12.10
ZZZZZZ	16406	4.06	62419	5.05	39403	6.49	72880	7.84	84791	10.62	75333	12.10

IS I = 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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2955-CC2937	Injection Date:	04/23/13
Lab File ID:	F63268.D	Injection Time:	08:25
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	30601	4.04	120229	5.04	78200	6.47	151840	7.82	177124	10.61	164040	12.08
Upper Limit [a]	61202	4.54	240458	5.54	156400	6.97	303680	8.32	354248	11.11	328080	12.58
Lower Limit [b]	15301	3.54	60115	4.54	39100	5.97	75920	7.32	88562	10.11	82020	11.58
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	21368	4.05	81483	5.03	52879	6.47	99435	7.82	119424	10.60	110565	12.07
ZZZZZZ	22262	4.04	85798	5.04	55473	6.47	104511	7.82	127595	10.60	119464	12.07
ZZZZZZ	21485	4.04	82122	5.03	53522	6.47	98152	7.82	113172	10.60	106726	12.07
ZZZZZZ	19985	4.04	77547	5.03	50809	6.47	96854	7.82	111678	10.60	104837	12.07
MC19724-2	21327	4.04	80000	5.03	52503	6.47	99818	7.82	II9862	10.60	111956	12.07
OP32727-MB	20489	4.04	79917	5.03	53016	6.47	100453	7.82	118991	10.60	107329	12.07
OP32727-BS	20413	4.04	78984	5.03	50853	6.47	96864	7.82	115337	10.60	105891	12.07
ZZZZZZ	21175	4.04	82490	5.03	54088	6.47	100954	7.82	119118	10.60	112149	12.07
MC19724-3	21998	4.04	82080	5.03	54954	6.47	103948	7.81	124053	10.60	116117	12.07
MC19724-4	23311	4.04	89069	5.03	57718	6.47	110366	7.82	133025	10.60	123320	12.07
ZZZZZZ	25349	4.04	99742	5.03	63925	6.47	118991	7.82	142916	10.60	125024	12.07
ZZZZZZ	25741	4.04	100971	5.03	65718	6.47	120885	7.82	144606	10.60	116897	12.07

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3073-CC3044	Injection Date:	04/17/13
Lab File ID:	I82650.D	Injection Time:	11:14
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	161691	3.38	403297	4.35	212742	5.75	395919	6.98	312782	9.71	595569	11.10
Upper Limit [a]	323382	3.88	806594	4.85	425484	6.25	791838	7.48	625564	10.21	1191138	11.60
Lower Limit [b]	80846	2.88	201649	3.85	106371	5.25	197960	6.48	156391	9.21	297785	10.60
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	160010	3.38	400853	4.35	198393	5.74	352459	6.98	289010	9.70	563391	11.10
ZZZZZZ	161140	3.38	410909	4.35	205325	5.75	355306	6.98	289435	9.70	579053	11.10
ZZZZZZ	143875	3.38	360086	4.35	182299	5.74	313021	6.98	254154	9.70	511088	11.10
ZZZZZZ	153897	3.38	384039	4.35	190079	5.74	330733	6.98	265844	9.70	539459	11.10
ZZZZZZ	183846	3.38	462997	4.35	229299	5.75	395405	6.98	321054	9.70	625017	11.10
ZZZZZZ	180808	3.38	454862	4.35	224413	5.75	383919	6.98	310479	9.71	611222	11.10
ZZZZZZ	174676	3.38	442617	4.35	221227	5.74	374801	6.98	306217	9.70	604830	11.10
ZZZZZZ	178743	3.38	456297	4.35	225767	5.75	388827	6.98	322372	9.71	638290	11.10
ZZZZZZ	167563	3.38	422715	4.35	209636	5.75	364355	6.98	294498	9.71	594571	11.10
ZZZZZZ	169246	3.38	436104	4.35	217295	5.75	380575	6.98	305190	9.70	596562	11.10
OP32662-MB	138394	3.38	356731	4.35	181532	5.74	320617	6.98	257712	9.70	507428	11.10
OP32662-BS	134106	3.38	343680	4.35	174040	5.75	311263	6.99	241069	9.71	471892	11.10
OP32662-MS	143514	3.38	361285	4.35	184172	5.75	325840	6.99	254321	9.71	501119	11.10
OP32662-MSD	138315	3.39	352582	4.35	177424	5.75	315624	6.99	237211	9.71	468515	11.10
ZZZZZZ	153647	3.38	390060	4.35	196096	5.75	334665	6.98	269649	9.70	523763	11.10
ZZZZZZ	145657	3.38	364738	4.35	186238	5.74	319731	6.98	260071	9.71	519633	11.10
ZZZZZZ	139969	3.38	363956	4.35	179249	5.74	314893	6.98	254272	9.70	509762	11.10
ZZZZZZ	139674	3.38	360541	4.35	181023	5.74	315843	6.98	248342	9.70	497651	11.10
ZZZZZZ	128652	3.39	326386	4.35	169502	5.74	306694	6.98	251024	9.70	492438	11.10
ZZZZZZ	138100	3.38	353628	4.35	177568	5.75	313001	6.98	252231	9.70	502923	11.10
ZZZZZZ	132264	3.38	335882	4.35	169221	5.74	299907	6.98	244456	9.70	481518	11.10
MC19724-5	135413	3.38	354836	4.35	179686	5.74	313578	6.98	252009	9.70	487416	11.10
ZZZZZZ	124258	3.38	321569	4.35	163812	5.75	292375	6.98	237448	9.70	458461	11.10
ZZZZZZ	139500	3.38	357182	4.35	178648	5.75	312774	6.98	252452	9.70	493423	11.10
ZZZZZZ	111704	3.38	287193	4.35	145323	5.74	260957	6.98	212249	9.70	417710	11.09
ZZZZZZ	131553	3.38	333743	4.35	172494	5.75	311578	6.98	248770	9.70	488876	11.10
ZZZZZZ	130612	3.38	333835	4.35	168927	5.74	290183	6.98	235554	9.70	459422	11.09

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3073-CC3044	Injection Date:	04/17/13
Lab File ID:	I82650.D	Injection Time:	11:14
Instrument ID:	GCMSI	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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
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	179692	3.39	460I56	4.35	237I34	5.75	434209	6.98	344879	9.71	639898	1I.10
Upper Limit [a]	359384	3.89	920312	4.85	474268	6.25	868418	7.48	689758	10.21	1279796	11.60
Lower Limit [b]	89846	2.89	230078	3.85	118567	5.25	217105	6.48	172440	9.21	319949	10.60
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
OP32693-MB	139424	3.38	358365	4.35	182528	5.75	318374	6.98	250282	9.70	486696	11.10
OP32693-BS	139690	3.38	355246	4.35	183610	5.75	323862	6.99	256817	9.71	499776	11.10
OP32693-MS	130368	3.38	333129	4.35	171280	5.75	301573	6.98	237538	9.71	463846	11.10
OP32693-MSD	125331	3.38	320948	4.35	165486	5.74	297198	6.98	233451	9.70	451858	11.09
MC19800-9	144481	3.38	377139	4.35	189735	5.74	326402	6.98	266470	9.70	515316	11.09
ZZZZZZ	13I278	3.38	334825	4.35	163915	5.74	287165	6.98	232011	9.70	458538	11.10
ZZZZZZ	122472	3.38	323344	4.35	167074	5.74	292322	6.98	238730	9.70	465652	11.09
OP32682-MB	148798	3.38	379002	4.35	194285	5.74	343460	6.98	278659	9.70	542303	11.09
OP32682-BS	153296	3.39	386293	4.35	198122	5.75	354075	6.99	274577	9.71	521264	11.10
OP32682-MS	155723	3.39	391581	4.35	201115	5.75	357436	6.99	274726	9.71	525274	11.10
OP32682-MSD	146672	3.39	374500	4.35	193256	5.75	346963	6.99	272228	9.71	525153	11.10
MC19800-3	157230	3.38	402876	4.35	203336	5.74	358154	6.98	279045	9.70	551300	11.10
MC19724-1	150080	3.38	382672	4.35	196813	5.74	351141	6.98	283440	9.70	565244	11.09
MC19724-2	137342	3.39	341792	4.35	173991	5.74	308917	6.98	247995	9.70	490916	11.09
MC19724-3	151165	3.39	373443	4.35	189460	5.74	335217	6.98	270943	9.70	532909	11.09
MC19724-4	174567	3.39	458604	4.35	224352	5.75	394969	6.98	312619	9.71	602698	11.10
ZZZZZZ	149620	3.39	388888	4.35	201733	5.75	364947	6.98	299036	9.70	580990	11.10
ZZZZZZ	145419	3.39	372209	4.35	193062	5.75	347268	6.98	283829	9.70	562118	11.10
ZZZZZZ	154647	3.39	396581	4.35	200338	5.74	352331	6.98	283827	9.71	546027	11.10
ZZZZZZ	153832	3.38	398126	4.35	203856	5.74	358521	6.98	292968	9.70	571587	11.10
ZZZZZZ	140627	3.38	367318	4.35	183513	5.75	337924	6.98	279273	9.71	547113	11.10
ZZZZZZ	124448	3.38	327531	4.35	173742	5.74	309890	6.98	258582	9.70	503738	11.10
ZZZZZZ	144516	3.38	373750	4.35	192239	5.74	349202	6.98	292199	9.71	574680	11.10
ZZZZZZ	141757	3.38	378382	4.35	196962	5.75	359156	6.98	302709	9.70	592309	11.10
ZZZZZZ	150396	3.39	398302	4.35	206391	5.75	372293	6.98	314997	9.71	621297	11.10
ZZZZZZ	136149	3.39	356418	4.36	185150	5.75	333478	6.99	275713	9.71	529195	11.10
ZZZZZZ	142746	3.38	376341	4.35	192528	5.75	351934	6.99	292685	9.71	548493	11.11
ZZZZZZ	152229	3.38	407303	4.35	214602	5.74	380880	6.98	327110	9.71	617058	11.10
ZZZZZZ	129337	3.39	342167	4.35	182913	5.74	332736	6.98	285283	9.70	558557	11.10

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
Instrument ID:	GCMSI	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-dI2

(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.

7.4.4

Semivolatile Internal Standard Area Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU690-CC623	Injection Date:	04/16/13
Lab File ID:	U13627.D	Injection Time:	10:15
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	104684	2.89	383260	3.85	232726	5.24	407038	6.44	418753	9.11	362458	10.63
Upper Limit [a]	209368	3.39	766520	4.35	465452	5.74	814076	6.94	837506	9.61	724916	11.13
Lower Limit [b]	52342	2.39	191630	3.35	116363	4.74	203519	5.94	209377	8.61	181229	10.13

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	81914	2.88	302531	3.84	184193	5.24	308442	6.43	321294	9.10	284036	10.62
ZZZZZZ	107110	2.88	398632	3.84	245578	5.24	407771	6.43	433519	9.10	375003	10.62
ZZZZZZ	72927	2.88	275962	3.84	167226	5.24	280416	6.43	299133	9.10	268621	10.62
ZZZZZZ	84487	2.88	315393	3.84	191111	5.24	329911	6.43	360759	9.10	324313	10.62
ZZZZZZ	84661	2.88	314759	3.84	190950	5.24	327018	6.43	361834	9.10	330512	10.62
ZZZZZZ	120112	2.88	443235	3.84	272489	5.24	471707	6.43	512453	9.10	472619	10.62
OP32553-MB	112897	2.88	417387	3.84	250323	5.24	432034	6.43	481840	9.10	418662	10.62
OP32553-BS	101154	2.88	364694	3.84	219826	5.24	391319	6.43	435585	9.10	391626	10.62
OP32553-MS	99026	2.88	345569	3.84	213472	5.24	382536	6.43	421357	9.10	387666	10.62
OP32553-MSD	120103	2.88	427738	3.84	262603	5.24	469526	6.43	522907	9.10	486768	10.63
MC19626-1	119849	2.88	443143	3.84	270152	5.24	467822	6.43	503444	9.10	470852	10.62
ZZZZZZ	101513	2.88	363693	3.84	219927	5.24	384081	6.43	425006	9.10	402986	10.63
ZZZZZZ	104982	2.88	377711	3.84	232696	5.24	402385	6.43	458095	9.10	429502	10.63
ZZZZZZ	97409	2.88	353565	3.84	219103	5.24	397218	6.43	443762	9.10	402828	10.63
OP32661-MB	85496	2.88	315755	3.84	191079	5.24	336981	6.43	378197	9.10	352099	10.62
OP32661-BS	95372	2.88	340933	3.85	213920	5.24	383611	6.43	431428	9.10	404922	10.63
OP32661-MS	92781	2.88	332409	3.85	205634	5.24	371214	6.43	414716	9.10	392412	10.63
OP32661-MSD	74566	2.88	262447	3.84	165063	5.24	293092	6.43	329863	9.10	310464	10.63
ZZZZZZ	103185	2.88	377644	3.84	230769	5.24	414151	6.43	464790	9.10	443436	10.63
ZZZZZZ	82416	2.88	304440	3.84	186500	5.24	331934	6.43	363899	9.10	338521	10.62
ZZZZZZ	75685	2.88	279702	3.84	180251	5.24	305460	6.43	343683	9.10	320535	10.62
ZZZZZZ	77683	2.88	285883	3.84	179354	5.24	311130	6.43	347468	9.10	328132	10.62
ZZZZZZ	77906	2.88	285107	3.84	185394	5.24	327845	6.43	364471	9.10	343343	10.62
ZZZZZZ	100687	2.88	362876	3.84	230436	5.24	395518	6.43	461344	9.10	436247	10.63
ZZZZZZ	87974	2.88	316121	3.84	197925	5.24	343687	6.43	391288	9.10	366433	10.62

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU691-CC652	Injection Date:	04/16/13
Lab File ID:	U13627A.D	Injection Time:	10:15
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	104702	2.89	381426	3.85	232726	5.24	407038	6.44	418753	9.11	362458	10.63
Upper Limit [a]	209404	3.39	762852	4.35	465452	5.74	814076	6.94	837506	9.61	724916	11.13
Lower Limit [b]	52351	2.39	190713	3.35	116363	4.74	203519	5.94	209377	8.61	181229	10.13
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	81914	2.88	302531	3.84	184193	5.24	308442	6.43	321294	9.10	284036	10.62
ZZZZZZ	107110	2.88	398632	3.84	245578	5.24	407771	6.43	433519	9.10	375003	10.62
ZZZZZZ	72927	2.88	275962	3.84	167226	5.24	280416	6.43	299133	9.10	268621	10.62
ZZZZZZ	84487	2.88	315393	3.84	191111	5.24	329911	6.43	360759	9.10	324313	10.62
ZZZZZZ	84661	2.88	314759	3.84	190950	5.24	327018	6.43	361834	9.10	330512	10.62
ZZZZZZ	120112	2.88	443235	3.84	272489	5.24	471707	6.43	512453	9.10	472619	10.62
OP32553-MB	112897	2.88	417387	3.84	250323	5.24	432034	6.43	481840	9.10	418662	10.62
OP32553-BS	101154	2.88	364694	3.84	219826	5.24	391319	6.43	435585	9.10	391626	10.62
OP32553-MS	99026	2.88	345569	3.84	213472	5.24	382536	6.43	421357	9.10	387666	10.62
OP32553-MSD	120103	2.88	427738	3.84	262603	5.24	469526	6.43	522907	9.10	486768	10.63
MC19626-1	119849	2.88	443143	3.84	270152	5.24	467822	6.43	503444	9.10	470852	10.62
ZZZZZZ	101513	2.88	363693	3.84	219927	5.24	384081	6.43	425006	9.10	402986	10.63
ZZZZZZ	104982	2.88	377711	3.84	232696	5.24	402385	6.43	458095	9.10	429502	10.63
ZZZZZZ	97409	2.88	353565	3.84	219103	5.24	397218	6.43	443762	9.10	402828	10.63
OP32661-MB	85496	2.88	315755	3.84	191079	5.24	336981	6.43	378197	9.10	352099	10.62
OP32661-BS	95372	2.88	340933	3.85	213920	5.24	383611	6.43	431428	9.10	404922	10.63
OP32661-MS	92781	2.88	332409	3.85	205634	5.24	371214	6.43	414716	9.10	392412	10.63
OP32661-MSD	74566	2.88	262447	3.84	165063	5.24	293092	6.43	329863	9.10	310464	10.63
ZZZZZZ	103185	2.88	377644	3.84	230769	5.24	414151	6.43	464790	9.10	443436	10.63
ZZZZZZ	82416	2.88	304440	3.84	186500	5.24	331934	6.43	363899	9.10	338521	10.62
ZZZZZZ	75685	2.88	279702	3.84	180251	5.24	305460	6.43	343683	9.10	320535	10.62
ZZZZZZ	77683	2.88	285883	3.84	179354	5.24	311130	6.43	347468	9.10	328132	10.62
ZZZZZZ	77906	2.88	285107	3.84	185394	5.24	327845	6.43	364471	9.10	343343	10.62
ZZZZZZ	100687	2.88	362876	3.84	230436	5.24	395518	6.43	461344	9.10	436247	10.63
ZZZZZZ	87974	2.88	316121	3.84	197925	5.24	343687	6.43	391288	9.10	366433	10.62

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU694-CC623	Injection Date:	04/19/13
Lab File ID:	U13713.D	Injection Time:	08:52
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	78688	2.86	284644	3.82	177789	5.21	312627	6.41	354155	9.07	329988	10.59
Upper Limit [a]	157376	3.36	569288	4.32	355578	5.71	625254	6.91	708310	9.57	659976	11.09
Lower Limit [b]	39344	2.36	142322	3.32	88895	4.71	156314	5.91	177078	8.57	164994	10.09
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
MC19778-7	114960	2.86	417546	3.82	248497	5.21	417026	6.40	463035	9.07	435771	10.59
ZZZZZZ	92258	2.86	332529	3.82	208000	5.21	332402	6.40	374401	9.07	362358	10.60
ZZZZZZ	109289	2.86	407640	3.82	236245	5.21	425151	6.40	464807	9.07	439058	10.59
ZZZZZZ	109699	2.86	397035	3.82	246280	5.21	401017	6.40	450111	9.07	425548	10.59
MC19724-5	99789	2.86	372127	3.82	229256	5.21	393273	6.40	444791	9.07	419215	10.59
ZZZZZZ	136355	2.86	504299	3.82	303757	5.21	524749	6.40	590626	9.07	552065	10.59
OP32680-MB	110194	2.86	402534	3.82	245666	5.21	426072	6.40	510366	9.06	476036	10.59
OP32680-BS	109886	2.86	389667	3.82	239609	5.21	431592	6.40	489268	9.07	452762	10.59
OP32680-MS	127255	2.86	459185	3.82	285835	5.21	502486	6.40	563829	9.07	525279	10.59
OP32680-MSD	116228	2.86	422198	3.82	256165	5.21	460479	6.40	515542	9.07	488534	10.59
MC20000-1	121906	2.86	436753	3.82	273201	5.21	465089	6.40	523559	9.06	500779	10.59
ZZZZZZ	124653	2.86	473409	3.81	283636	5.21	477147	6.40	538708	9.06	479678	10.59
ZZZZZZ	121114	2.86	443427	3.82	272306	5.21	463386	6.40	518115	9.06	490290	10.59

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
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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 minntes.

Semivolatile Internal Standard Area Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU695-CC652	Injection Date:	04/19/13
Lab File ID:	U13713A.D	Injection Time:	08:52
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	78688	2.86	284644	3.82	177789	5.21	312627	6.41	354155	9.07	329988	10.59
Upper Limit [a]	157376	3.36	569288	4.32	355578	5.71	625254	6.91	708310	9.57	659976	11.09
Lower Limit [b]	39344	2.36	142322	3.32	88895	4.71	156314	5.91	177078	8.57	164994	10.09
Lab Sample ID	IS 1 AREA	RT	1S 2 AREA	RT	1S 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
MC19778-7	114960	2.86	417546	3.82	248497	5.21	417026	6.40	463035	9.07	435771	10.59
ZZZZZZ	92258	2.86	332529	3.82	208000	5.21	332402	6.40	374401	9.07	362358	10.60
ZZZZZZ	109289	2.86	407640	3.82	236245	5.21	425151	6.40	464807	9.07	439058	10.59
ZZZZZZ	109699	2.86	397035	3.82	246280	5.21	401017	6.40	450111	9.07	425548	10.59
MC19724-5	99789	2.86	372127	3.82	229256	5.21	393273	6.40	444791	9.07	419215	10.59
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OP32680-MB	110194	2.86	402534	3.82	245666	5.21	426072	6.40	510366	9.06	476036	10.59
OP32680-BS	109886	2.86	389667	3.82	239609	5.21	431592	6.40	489268	9.07	452762	10.59
OP32680-MS	127255	2.86	459185	3.82	285835	5.21	502486	6.40	563829	9.07	525279	10.59
OP32680-MSD	116228	2.86	422198	3.82	256165	5.21	460479	6.40	515542	9.07	488534	10.59
MC20000-1	121906	2.86	436753	3.82	273201	5.21	465089	6.40	523559	9.06	500779	10.59
ZZZZZZ	124653	2.86	473409	3.81	283636	5.21	477147	6.40	538708	9.06	479678	10.59
ZZZZZZ	121114	2.86	443427	3.82	272306	5.21	463386	6.40	518115	9.06	490290	10.59

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19724-1	F63178.D	48.0	41.0	96.0	92.0	88.0	80.0
MC19724-2	F63273.D	46.0	38.0	98.0	96.0	93.0	82.0
MC19724-2	F63180.D	46.0	36.0	98.0	94.0	89.0	82.0
MC19724-3	F63277.D	46.0	38.0	105.0	108.0	103.0	90.0
MC19724-3	F63181.D	45.0	35.0	92.0	98.0	92.0	81.0
MC19724-4	F63278.D	61.0	50.0	112.0* [a]	98.0	95.0	104.0
MC19724-4	F63182.D	50.0	43.0	99.0	85.0	81.0	91.0
MC19724-5	U13718.D	40.0	29.0	80.0	75.0	72.0	69.0
OP32661-BS	U13644.D	48.0	33.0	90.0	86.0	83.0	86.0
OP32661-MB	U13643.D	42.0	30.0	84.0	78.0	78.0	80.0
OP32661-MS	U13645.D	48.0	43.0	85.0	81.0	78.0	71.0
OP32661-MSD	U13646.D	45.0	33.0	86.0	78.0	76.0	71.0
OP32681-BS	F63171.D	56.0	38.0	97.0	93.0	90.0	90.0
OP32681-MB	F63170.D	53.0	34.0	97.0	92.0	88.0	89.0
OP32681-MS	F63172.D	52.0	35.0	95.0	93.0	91.0	91.0
OP32681-MSD	F63173.D	53.0	35.0	95.0	95.0	92.0	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%

(a) Outside control limits due to possible matrix interference.

Semivolatile Surrogate Recovery Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19724-1	I82732.D	77.0	77.0	73.0
MC19724-2	I82733.D	81.0	80.0	73.0
MC19724-3	I82734.D	84.0	80.0	74.0
MC19724-4	I82735.D	71.0	74.0	81.0
MC19724-5	I82672.D	71.0	70.0	70.0
OP32662-BS	I82662.D	80.0	74.0	83.0
OP32662-MB	I82661.D	76.0	74.0	80.0
OP32662-MS	I82663.D	79.0	72.0	71.0
OP32662-MSD	I82664.D	75.0	69.0	69.0
OP32682-BS	I82728.D	80.0	76.0	81.0
OP32682-MB	I82727.D	81.0	78.0	80.0
OP32682-MS	I82729.D	80.0	77.0	80.0
OP32682-MSD	I82730.D	79.0	76.0	82.0

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

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-MB	BK23691.D	1	04/18/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19724-1, MC19724-2, MC19724-3, MC19724-4, MC19724-5, MC19724-7

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)	99%	36-173%
460-00-4	Bromofluorobenzene (S)	106%	36-173%

8.1.1 8

Blank Spike Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-BS	BK23692.D	1	04/18/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19724-1, MC19724-2, MC19724-3, MC19724-4, MC19724-5, MC19724-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.064	90	60-140
106-93-4	1,2-Dibromoethane	0.071	0.070	99	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	96%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	36-173%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-MS	BK23693.D	1	04/18/13	NK	04/17/13	OP32696	GBK833
OP32696-MSD	BK23694.D	1	04/18/13	NK	04/17/13	OP32696	GBK833
MC19724-5	BK23700.D	1	04/19/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19724-1, MC19724-2, MC19724-3, MC19724-4, MC19724-5, MC19724-7

CAS No.	Compound	MC19724-5 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		0.0727	0.058	80	0.057	77	2	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0727	0.072	99	0.073	99	1	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
460-00-4	Bromoflnorobenzene (S)	99%	93%	84%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	103%	97%	36-173%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19724-1	BK23696.D	95.0	107.0
MC19724-2	BK23697.D	136.0	138.0
MC19724-3	BK23698.D	129.0	127.0
MC19724-4	BK23699.D	118.0	120.0
MC19724-5	BK23700.D	84.0	97.0
MC19724-7	BK23701.D	76.0	87.0
OP32696-BS	BK23692.D	96.0	104.0
OP32696-MB	BK23691.D	99.0	106.0
OP32696-MS	BK23693.D	99.0	104.0
OP32696-MSD	BK23694.D	93.0	103.0

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: MC19724
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/18/13
Lab File ID:	BK23684.D	Injection Time:	19:38
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23685.D	04/18/13	20:02	4.45	4.89
ZZZZZZ	BK23686.D	04/18/13	20:25	4.45	4.88
ZZZZZZ	BK23687.D	04/18/13	20:48	4.45	4.88
ZZZZZZ	BK23688.D	04/18/13	21:12	4.45	4.88
ZZZZZZ	BK23689.D	04/18/13	21:36	4.45	4.88
ZZZZZZ	BK23690.D	04/18/13	22:01	4.45	4.89
OP32696-MB	BK23691.D	04/18/13	22:25	4.45	4.89
OP32696-BS	BK23692.D	04/18/13	22:49	4.45	4.89
OP32696-MS	BK23693.D	04/18/13	23:13	4.45	4.89
OP32696-MSD	BK23694.D	04/18/13	23:38	4.45	4.89

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: MC19724
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/19/13
Lab File ID:	BK23695.D	Injection Time:	00:03
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.89

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC19724-1	BK23696.D	04/19/13	00:28	4.45	4.89
MC19724-2	BK23697.D	04/19/13	00:53	4.45	4.88
MC19724-3	BK23698.D	04/19/13	01:18	4.45	4.88
MC19724-4	BK23699.D	04/19/13	01:44	4.45	4.88
MC19724-5	BK23700.D	04/19/13	02:09	4.45	4.89
MC19724-7	BK23701.D	04/19/13	02:34	4.45	4.89
ZZZZZZ	BK23702.D	04/19/13	02:59	4.45	4.89
ZZZZZZ	BK23703.D	04/19/13	03:25	4.45	4.88
ZZZZZZ	BK23704.D	04/19/13	03:50	4.45	4.88
ZZZZZZ	BK23705.D	04/19/13	04:15	4.45	4.88

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 – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19816

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/15/2013

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

Sample Identification	Sample Identification
TRIP BLANK-041113	TRIP BLANK-041113-ST
P93A-ROX-041113	P93A-ROX-041113-Dup
P93B-ROX-041113	P93D-ROX-041113

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. Although not indicated in the laboratory case narrative, phenol was detected in the method blank. The difference in phenanthrene results for the field duplicate pair P93A-ROX-041113/P93A-ROX-041113-Dup was greater than two times (2X) the reporting level; therefore, results were qualified as estimated. Samples P93B-ROX-041113 and field duplicate pair P93A-ROX-041113/P93A-ROX-041113-Dup were diluted due to high levels of VOC and target analytes. Additionally, the initial 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?

Yes

Blank ID	Parameter	Analyte	Concentration/ Amount
OP32681-MB	SVOCs	Phenol	3.5 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 required qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P93D-ROX-041113	SVOCs	Phenol	8.7 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
MSH2004-BS	VOCs	Acetone	**162**	NA	70-130
MSH2004-BS	VOCs	Acrolein	**52**	NA	70-130
MSH2004-BS	VOCs	Acrylonitrile	**69**	NA	70-130
MSH2004-BS	VOCs	2-Chloroethyl vinyl ether	**58**	NA	70-130
MSH2004-BS	VOCs	2-Hexanone	**131**	NA	70-130
OP32681-BS	SVOCs	3,3'-Dichlorobenzidine	**12**	NA	40-140
OP32681-BS	SVOCs	Hexachlorocyclopentadiene	**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 MSH2004-BS was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
P93A-ROX-041113	VOCs	Acrolein	**UJ**
P93A-ROX-041113	VOCs	Acrylonitrile	**UJ**
P93A-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**
P93A-ROX-041113-Dup	VOCs	Acrolein	**UJ**
P93A-ROX-041113-Dup	VOCs	Acrylonitrile	**UJ**
P93A-ROX-041113-Dup	VOCs	2-Chloroethyl vinyl ether	**UJ**
P93B-ROX-041113	VOCs	Acrolein	**UJ**
P93B-ROX-041113	VOCs	Acrylonitrile	**UJ**
P93B-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**
P93D-ROX-041113	VOCs	Acrolein	**UJ**
P93D-ROX-041113	VOCs	Acrylonitrile	**UJ**
P93D-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**
P93A-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P93A-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93A-ROX-041113-Dup	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P93A-ROX-041113-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93B-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P93B-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**UJ**

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P93D-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**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?

Yes

Field ID	Field Duplicate ID
P93A-ROX-041113	P93A-ROX-041113-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
P93A-ROX-041113	P93A-ROX-041113-Dup	PAHs	1-Methylnaphthalene	**>2X RL**	**J/J**

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, although the initial calibration verification for acrolein exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of data was required.

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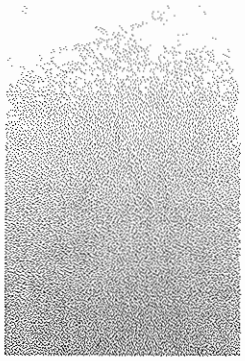
05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19816

Sampling Date: 04/11/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **86**

Reviewed on
5/15/2013

Reza Pand
Lab Director

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.

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)

Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7 8

Sample Summary

Shell Oil

Job No: MC19816

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC19816-1	04/11/13	00:00	WPEA	04/12/13	AQ	Trip Blank Water	TRIP BLANK-0411113-HCL
MC19816-2	04/11/13	00:00	WPEA	04/12/13	AQ	Trip Blank Water	TRIP BLANK-041113-ST
MC19816-3	04/11/13	12:01	WPEA	04/12/13	AQ	Ground Water	P93A-ROX-041113
MC19816-4	04/11/13	12:01	WPEA	04/12/13	AQ	Ground Water	P93A-ROX-041113-DUP
MC19816-5	04/11/13	14:25	WPEA	04/12/13	AQ	Ground Water	P93B-ROX-041113
MC19816-6	04/11/13	12:40	WPEA	04/12/13	AQ	Ground Water	P93D-ROX-041113

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC19816
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	Report Date	4/29/2013 10:24:34 AM

4 Sample(s) and 2 Trip Blank(s) were collected on 04/11/2013 and were received at Accutest on 04/12/2013 properly preserved, at 1.4 Deg. C and intact. These Samples received an Accutest job number of MC19816. 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: MSH2004

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19900-13MS, MC19900-13MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6 have compounds reported with "D" qualifiers indicating results from the diluted analysis.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, 2-Hexanone, Acetone, Acrolein, Acrylonitrile are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein, Ethylbenzene, m,p-Xylene, Tetrachloroethene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- Initial calibration verification MSH1993-ICV1993 for acrolein exceeds 50% Difference. Acrolein is considered a difficult method analyte.

Matrix AQ	Batch ID: MSH2005

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19922-1MS, MC19922-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP32681

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-2MS, MC19800-2MSD were used as the QC samples indicated.
- OP32681-BS/MS/MSD Recovery(s) for 3,3'-Dichlorobenzidine, Hexachlorocyclopentadiene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 4,6-Dinitro-o-cresol, Pentachlorophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2,4,5-Trichlorophenol, 2-Nitrophenol, 4,6-Dinitro-o-cresol, Pentachlorophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- MC19816-6 has compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP32682

- 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) MC19800-3MS, MC19800-3MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP32696

- 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) MC19724-5MS, MC19724-5MSD 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(MC19816).

Summary of Hits

Job Number: MC19816
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19816-1	TRIP BLANK-0411113-HCL					
No hits reported in this sample.						
MC19816-2	TRIP BLANK-041113-ST					
No hits reported in this sample.						
MC19816-3	P93A-ROX-041113					
Benzene		120000	250	120	ug/l	SW846 8260B
Ethylbenzene		255 J	500	250	ug/l	SW846 8260B
Phenol		200	25	2.6	ug/l	SW846 8270C
Acenaphthene		0.23	0.10	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.074 J	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluoranthene		0.046 J	0.10	0.033	ug/l	SW846 8270C BY SIM
Fluorene		0.30	0.10	0.046	ug/l	SW846 8270C BY SIM
1-Methylnaphthaleue		14.6	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		9.8	0.20	0.052	ng/l	SW846 8270C BY SIM
Phenanthrene		0.35	0.050	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.040 J	0.10	0.036	ug/l	SW846 8270C BY SIM
MC19816-4	P93A-ROX-041113-DUP					
Benzene		120000	250	120	ug/l	SW846 8260B
Phenol		179	25	2.6	ug/l	SW846 8270C
Acenaphthene		0.21	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.25	0.10	0.046	ug/l	SW846 8270C BY SIM
1-Methyluaphthalene		14.6	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		9.6	0.20	0.052	ug/l	SW846 8270C BY SIM
Phenanthrene		0.24	0.050	0.013	ug/l	SW846 8270C BY SIM
MC19816-5	P93B-ROX-041113					
Benzene		618000	2500	1200	ug/l	SW846 8260B
Phenol		122	25	2.6	ug/l	SW846 8270C
Di-n-butyl phthalate		1.3 J	5.1	0.39	ug/l	SW846 8270C
MC19816-6	P93D-ROX-041113					
Phenol		8.7 B	5.2	0.53	ug/l	SW846 8270C

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	TRIP BLANK-0411113-HCL		
Lab Sample ID:	MC19816-1	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60612.D	1	04/21/13	AMY	n/a	n/a	MSH2004
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	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	10	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:	TRIP BLANK-0411113-HCL		
Lab Sample ID:	MC19816-1	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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-Xyleue	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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK-0411113-HCL		
Lab Sample ID:	MC19816-1	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	102%		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:	TRIP BLANK-041113-ST		
Lab Sample ID:	MC19816-2	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23702.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	35.0 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)	84%		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 evideuce of a compound

Report of Analysis

Client Sample ID:	P93A-ROX-041113		
Lab Sample ID:	MC19816-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60628.D	500	04/21/13	AMY	n/a	n/a	MSH2004
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	5000	1500	ug/l	
107-02-8	Acrolein	ND	13000	5100	ug/l	UJ
107-13-1	Acrylonitrile	ND	2500	1600	ug/l	UJ
71-43-2	Benzene	120000	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	5000	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	ng/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	UJ
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-041113		
Lab Sample ID:	MC19816-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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	255	500	250	ug/l	J
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	ng/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	
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-041113		
Lab Sample ID:	MC19816-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	97%		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:	P93A-ROX-041113		
Lab Sample ID:	MC19816-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	u/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63183.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	U13742.D	5	04/24/13	NS	04/16/13	OP32681	MSU698

	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	
95-57-8	2-Chlorophenol	ND	5.0	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	200 [a]	25	2.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ng/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ng/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	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-041113		
Lab Sample ID:	MC19816-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.50	ng/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	a,J
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ng/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%	42%	15-110%
4165-62-2	Phenol-d5	51%	39%	15-110%
118-79-6	2,4,6-Tribromophenol	105%	74%	15-110%
4165-60-0	Nitrobenzene-d5	105%	72%	30-130%
321-60-8	2-Fluorobiphenyl	94%	74%	30-130%
1718-51-0	Terphenyl-d14	91%	69%	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-041113		
Lab Sample ID:	MC19816-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82736.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	0.23	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.013	ug/l	
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	0.046	0.10	0.033	ug/l	J
86-73-7	Fluorene	0.30	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	14.6	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	9.8	0.20	0.052	ug/l	
85-01-8	Phenanthrene	0.35	0.050	0.013	ug/l	J
129-00-0	Pyrene	0.040	0.10	0.036	ng/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		15-110%
4165-62-2	Phenol-d5	44%		15-110%
118-79-6	2,4,6-Tribromophenol	84%		15-110%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%
1718-51-0	Terphenyl-d14	84%		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-041113		
Lab Sample ID:	MC19816-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23703.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	33.2 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	130%		36-173%
460-00-4	Bromofluorobenzene (S)	141%		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-041113-DUP		
Lab Sample ID:	MC19816-4	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60629.D	500	04/21/13	AMY	n/a	n/a	MSH2004
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	5000	1500	ug/l	
107-02-8	Acrolein	ND	13000	5100	ug/l	UJ
107-13-1	Acrylonitrile	ND	2500	1600	ug/l	UJ
71-43-2	Benzene	120000	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	5000	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	Chloroethaue	ND	1000	250	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	2500	630	ug/l	UJ
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-041113-DUP		
Lab Sample ID:	MC19816-4	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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	
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-041113-DUP		
Lab Sample ID:	MC19816-4	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	98%		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:	P93A-ROX-041113-DUP		
Lab Sample ID:	MC19816-4	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63184.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	U13743.D	5	04/24/13	NS	04/16/13	OP32681	MSU698

	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	
95-57-8	2-Chlorophenol	ND	5.0	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	179 [a]	25	2.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ng/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ng/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	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:	P93A-ROX-041113-DUP		
Lab Sample ID:	MC19816-4	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	U
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ng/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	53%	36%	15-110%
4165-62-2	Phenol-d5	48%	34%	15-110%
118-79-6	2,4,6-Tribromophenol	102%	64%	15-110%
4165-60-0	Nitrobenzene-d5	107%	67%	30-130%
321-60-8	2-Fluorobiphenyl	90%	65%	30-130%
1718-51-0	Terphenyl-d14	87%	60%	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-041113-DUP		
Lab Sample ID:	MC19816-4	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82737.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	0.21	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	0.25	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	14.6	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	9.6	0.20	0.052	ug/l	
85-01-8	Phenanthrene	0.24	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	47%		15-110%
4165-62-2	Phenol-d5	43%		15-110%
118-79-6	2,4,6-Tribromophenol	81%		15-110%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	81%		30-130%
1718-51-0	Terphenyl-d14	81%		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-041113-DUP		
Lab Sample ID:	MC19816-4	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23704.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	33.4 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	118%		36-173%
460-00-4	Bromofluorobenzene (S)	134%		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-041113		
Lab Sample ID:	MC19816-5	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60630.D	500	04/21/13	AMY	n/a	n/a	MSH2004
Run #2	H60653.D	5000	04/22/13	KR	n/a	n/a	MSH2005

	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	1500	ug/l	
107-02-8	Acrolein	ND	13000	5100	ug/l	UJ
107-13-1	Acrylonitrile	ND	2500	1600	ug/l	UJ
71-43-2	Benzene	618000 [a]	2500	1200	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	5000	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	UJ
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:	P93B-ROX-041113		
Lab Sample ID:	MC19816-5	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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	ng/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	
75-01-4	Vinyl chloride	ND	500	310	ng/l	
	m,p-Xylene	ND	500	370	ng/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:	P93B-ROX-041113		
Lab Sample ID:	MC19816-5	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%	87%	70-130%
2037-26-5	Toluene-D8	96%	99%	70-130%
460-00-4	4-Bromofluorobenzene	116%	113%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ng/l	

(a) Resnlt 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-041113		
Lab Sample ID:	MC19816-5	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63188.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	U13744.D	5	04/24/13	NS	04/16/13	OP32681	MSU698

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2	990 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	5.1	0.39	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.59	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	122 [a]	25	2.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.58	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.86	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.58	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.93	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.66	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.65	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.51	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	1.3	5.1	0.39	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.1	0.44	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-041113		
Lab Sample ID:	MC19816-5	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.51	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	ui J
67-72-1	Hexachloroethane	ND	5.1	0.44	ug/l	
78-59-1	Isophorone	ND	5.1	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.51	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.4	ug/l	
98-95-3	Nitrobenzeue	ND	5.1	0.25	ng/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.51	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.82	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.55	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%	34%	15-110%
4165-62-2	Phenol-d5	36%	29%	15-110%
118-79-6	2,4,6-Tribromophenol	92%	66%	15-110%
4165-60-0	Nitrobenzene-d5	86%	66%	30-130%
321-60-8	2-Fluorobiphenyl	81%	64%	30-130%
1718-51-0	Terphenyl-d14	88%	69%	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:	P93B-ROX-041113		
Lab Sample ID:	MC19816-5	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82738.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	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	0.059	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	0.047	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	0.051	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	39%		15-110%
4165-62-2	Phenol-d5	33%		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	73%		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:	P93B-ROX-041113		
Lab Sample ID:	MC19816-5	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23705.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	31.8 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	0.017	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.017	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	127%		36-173%
460-00-4	Bromofluorobenzene (S)	140%		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-041113		
Lab Sample ID:	MC19816-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60618.D	1	04/21/13	AMY	n/a	n/a	MSH2004
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	3.0	ng/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-Butanone (MEK)	ND	10	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:	P93D-ROX-041113		
Lab Sample ID:	MC19816-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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 (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	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 valne
B = Indicates analyte found in associated method hlank
N = Indicates presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	P93D-ROX-041113		
Lab Sample ID:	MC19816-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	101%		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:	P93D-ROX-041113		
Lab Sample ID:	MC19816-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63189.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	~~8.7~~ 4	~~5.2~~ 8.7	0.53	ug/l	B 4
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ng/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.66	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.40	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	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-041113		
Lab Sample ID:	MC19816-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ng/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	0.45	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.83	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	30%		15-110%
4165-62-2	Phenol-d5	22%		15-110%
118-79-6	2,4,6-Tribromopheuol	96%		15-110%
4165-60-0	Nitrobenzene-d5	85%		30-130%
321-60-8	2-Fluorobiphenyl	83%		30-130%
1718-51-0	Terphenyl-d14	97%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cone.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibratiou 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:	P93D-ROX-041113		
Lab Sample ID:	MC19816-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82739.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	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)authracene	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	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	Phenanthreue	ND	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	28%		15-110%
4165-62-2	Phenol-d5	20%		15-110%
118-79-6	2,4,6-Tribromophenol	79%		15-110%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	74%		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:	P93D-ROX-041113		
Lab Sample ID:	MC19816-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23707.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	82%		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

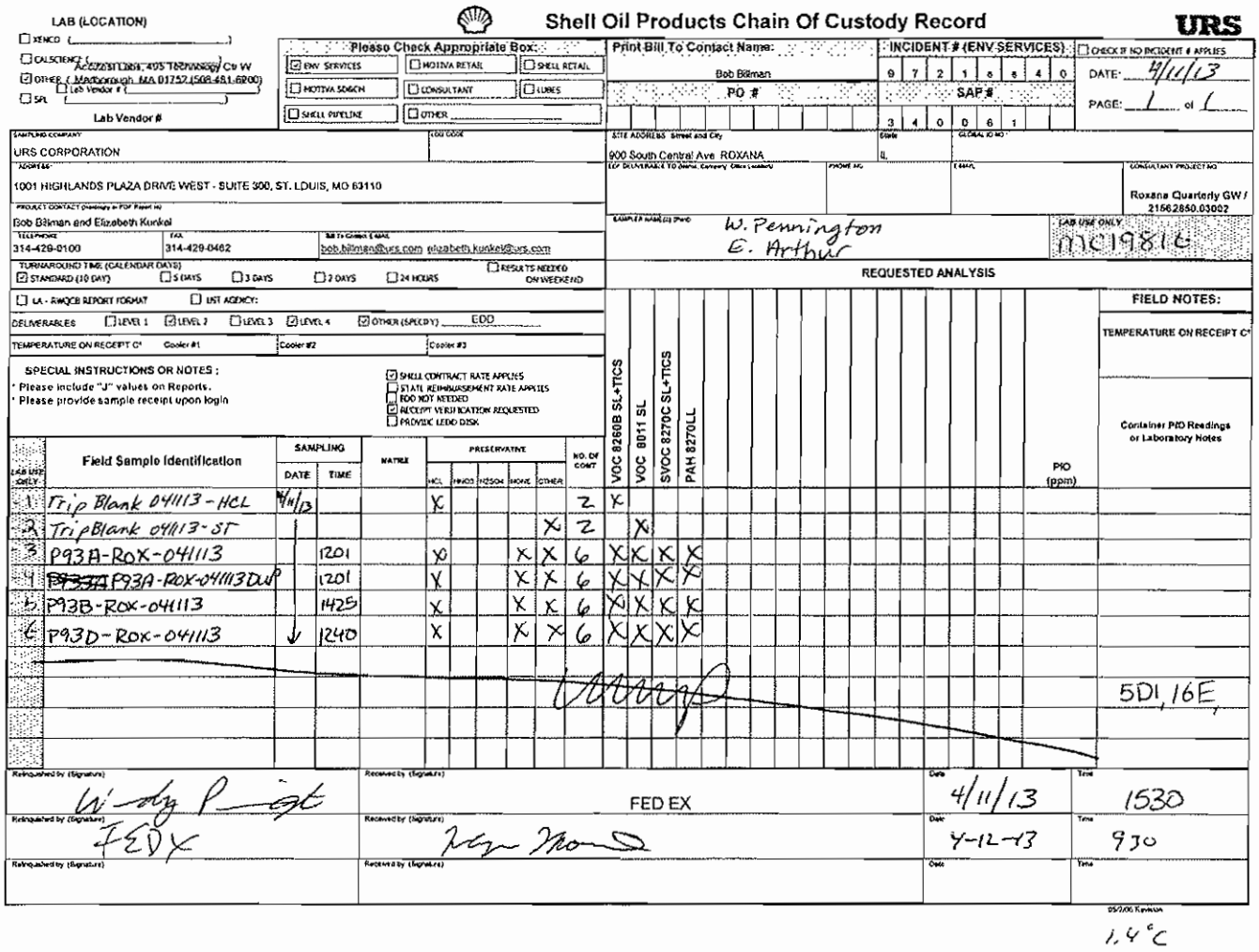
New England ACCUTEST LABORATORIES

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 (Acterra Labs, 405 Technology Cir W Marlborough, MA 01752 (508-481-6200))
☑ OTHER (_____) ☐ Lab Vendor # (_____)
☐ SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SD&CH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Bob Billman
INCIDENT # (ENV SERVICES): 9 7 2 1 8 8 4 0
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/11/13
PAGE: 1 of 1
PO #
SAP #: 3 4 0 0 6 1

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
LOC (DELIVERABLE TO) (Name, Company, Office Location)
PHONE NO.
E-MAIL
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562850.03002
PROJECT CONTACT (Hardcopy or PDF Report to): Bob Billman and Elizabeth Kunkel
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.billman@urs.com elizabeth.kunkel@urs.com
SAMPLER NAME(S) (Print): W. Pennington E. Arthur
LAB USE ONLY: MC19816

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 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	Trip Blank 041113-HCL	4/11/13			X					2	X					
2	Trip Blank 041113-ST	↓							X	2		X				
3	P93A-ROX-041113		1201		X			X	X	6	X	X	X	X		
4	~~P93A~~ P93A-ROX-041113DUP		1201		X			X	X	6	X	X	X	X		
5	P93B-ROX-041113		1425		X			X	X	6	X	X	X	X		
6	P93D-ROX-041113	↓	1240		X			X	X	6	X	X	X	X		

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
5DI, 16E

Relinquished by (Signature)	Received by (Signature)	Date	Time
Windy Pruitt	FED EX	4/11/13	1530
FEDX	[signature]	4-12-13	930

05/06 Revision

1.4°C

5.1
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MC19816: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19816 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/12/2013 **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 ,Preservation	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

MC19816: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19816

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19816-1 Collected: 11-APR-13 00:00 By: WPEA Received: 12-APR-13 By: TRIP BLANK-0411113-HCL						
MC19816-1	SW846 8260B	21-APR-13 10:14	AMY			V8260SL+
MC19816-2 Collected: 11-APR-13 00:00 By: WPEA Received: 12-APR-13 By: TRIP BLANK-041113-ST						
MC19816-2	SW846 8011	19-APR-13 02:59	NK	17-APR-13	BJ	V8011SL
MC19816-3 Collected: 11-APR-13 12:01 By: WPEA Received: 12-APR-13 By: P93A-ROX-041113						
MC19816-3	SW846 8011	19-APR-13 03:25	NK	17-APR-13	BJ	V8011SL
MC19816-3	SW846 8270C	19-APR-13 13:41	KR	16-APR-13	PA	AB8270SL+
MC19816-3	SW846 8270C BY SIM	19-APR-13 15:41	NS	16-APR-13	PA	B8270SIMSL
MC19816-3	SW846 8260B	21-APR-13 17:34	AMY			V8260SL+
MC19816-3	SW846 8270C	24-APR-13 12:15	NS	16-APR-13	PA	AB8270SL+
MC19816-4 Collected: 11-APR-13 12:01 By: WPEA Received: 12-APR-13 By: P93A-ROX-041113-DUP						
MC19816-4	SW846 8011	19-APR-13 03:50	NK	17-APR-13	BJ	V8011SL
MC19816-4	SW846 8270C	19-APR-13 14:05	KR	16-APR-13	PA	AB8270SL+
MC19816-4	SW846 8270C BY SIM	19-APR-13 16:05	NS	16-APR-13	PA	B8270SIMSL
MC19816-4	SW846 8260B	21-APR-13 18:01	AMY			V8260SL+
MC19816-4	SW846 8270C	24-APR-13 12:36	NS	16-APR-13	PA	AB8270SL+
MC19816-5 Collected: 11-APR-13 14:25 By: WPEA Received: 12-APR-13 By: P93B-ROX-041113						
MC19816-5	SW846 8011	19-APR-13 04:15	NK	17-APR-13	BJ	V8011SL
MC19816-5	SW846 8270C	19-APR-13 15:41	KR	16-APR-13	PA	AB8270SL+
MC19816-5	SW846 8270C BY SIM	19-APR-13 16:28	NS	16-APR-13	PA	B8270SIMSL
MC19816-5	SW846 8260B	21-APR-13 18:29	AMY			V8260SL+
MC19816-5	SW846 8260B	22-APR-13 15:55	KR			V8260SL+
MC19816-5	SW846 8270C	24-APR-13 12:58	NS	16-APR-13	PA	AB8270SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19816

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19816-6 Collected: 11-APR-13 12:40 By: WPEA Received: 12-APR-13 By: P93D-ROX-041113						
MC19816-6	SW846 8011	19-APR-13 05:06	NK	17-APR-13	BJ	V8011SL
MC19816-6	SW846 8270C	19-APR-13 16:05	KR	16-APR-13	PA	AB8270SL+
MC19816-6	SW846 8270C BY SIM	19-APR-13 16:51	NS	16-APR-13	PA	B8270SIMSL
MC19816-6	SW846 8260B	21-APR-13 12:59	AMY			V8260SL+

Accutest Internal Chain of Custody

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19816-1.1	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19816-1.1	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19816-1.1	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19816-1.1	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19816-2.2	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19816-2.2	Bijan Jafari		04/20/13 08:36	Depleted
MC19816-3.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19816-3.2	Michael Rolo		04/17/13 07:24	Depleted
MC19816-3.4	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19816-3.4	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19816-3.4	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19816-3.4	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19816-3.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19816-3.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19816-4.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19816-4.2	Michael Rolo		04/17/13 07:24	Depleted
MC19816-4.3	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19816-4.3	Bijan Jafari		04/20/13 08:36	Depleted
MC19816-4.4	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19816-4.4	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19816-4.4	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19816-4.4	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19816-5.1	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19816-5.1	Michael Rolo		04/17/13 07:24	Depleted
MC19816-5.3	VOC Ref #5	Gary Krasinski	04/22/13 14:02	Retrieve from Storage
MC19816-5.3	Gary Krasinski	GCMSH	04/22/13 14:02	Load on Instrument
MC19816-5.3	GCMSH	Gary Krasinski	04/23/13 09:22	Unload from Instrument
MC19816-5.3	Gary Krasinski	VOC Ref #5	04/25/13 10:05	Return to Storage
MC19816-5.4	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19816-5.4	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19816-5.4	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19816-5.4	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19816-5.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage

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Accutest Internal Chain of Custody

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19816-5.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19816-6.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19816-6.2	Michael Rolo		04/17/13 07:24	Depleted
MC19816-6.3	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19816-6.3	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19816-6.3	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19816-6.3	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Retnrn to Storage
MC19816-6.6	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19816-6.6	Bijan Jafari		04/20/13 08:36	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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-MB	H60611.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	10	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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-MB	H60611.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-MB	H60611.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	90%	70-130%
2037-26-5	Toluene-D8	102%	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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-5

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	89%	70-130%
2037-26-5	Toluene-D8	103%	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	

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-BS	H60609.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	80.9	162* a	70-130
107-02-8	Acrolein	250	129	52* a	70-130
107-13-1	Acrylonitrile	50	34.6	69* a	70-130
71-43-2	Benzene	50	49.4	99	70-130
108-86-1	Bromobenzene	50	54.6	109	70-130
74-97-5	Bromochloromethane	50	47.2	94	70-130
75-27-4	Bromodichloromethane	50	56.9	114	70-130
75-25-2	Bromoform	50	57.1	114	70-130
74-83-9	Bromomethane	50	48.7	97	70-130
78-93-3	2-Butanone (MEK)	50	57.3	115	70-130
104-51-8	n-Butylbenzene	50	55.7	111	70-130
135-98-8	sec-Butylbenzene	50	53.4	107	70-130
98-06-6	tert-Butylbenzene	50	54.3	109	70-130
75-15-0	Carbon disulfide	50	43.0	86	70-130
56-23-5	Carbon tetrachloride	50	60.7	121	70-130
108-90-7	Chlorobenzene	50	50.5	101	70-130
75-00-3	Chloroethane	50	48.2	96	70-130
110-75-8	2-Chloroethyl vinyl ether	50	29.2	58* a	70-130
67-66-3	Chloroform	50	49.6	99	70-130
74-87-3	Chloromethane	50	51.2	102	70-130
95-49-8	o-Chlorotoluene	50	50.1	100	70-130
106-43-4	p-Chlorotoluene	50	53.0	106	70-130
124-48-1	Dibromochloromethane	50	55.1	110	70-130
95-50-1	1,2-Dichlorobenzene	50	52.7	105	70-130
541-73-1	1,3-Dichlorobenzene	50	54.1	108	70-130
106-46-7	1,4-Dichlorobenzene	50	53.2	106	70-130
75-71-8	Dichlorodifluoromethane	50	57.8	116	70-130
75-34-3	1,1-Dichloroethane	50	44.4	89	70-130
107-06-2	1,2-Dichloroethane	50	52.8	106	70-130
75-35-4	1,1-Dichloroethene	50	47.4	95	70-130
156-59-2	cis-1,2-Dichloroethene	50	45.0	90	70-130
156-60-5	trans-1,2-Dichloroethene	50	44.1	88	70-130
78-87-5	1,2-Dichloropropane	50	45.4	91	70-130
142-28-9	1,3-Dichloropropane	50	50.8	102	70-130
594-20-7	2,2-Dichloropropane	50	58.3	117	70-130
563-58-6	1,1-Dichloropropene	50	50.2	100	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-BS	H60609.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	46.2	92	70-130
10061-02-6	trans-1,3-Dichloropropene	50	49.7	99	70-130
123-91-1	1,4-Dioxane	250	201	80	70-130
97-63-2	Ethyl methacrylate	50	43.0	86	77-137
100-41-4	Ethylbenzene	50	57.2	114	70-130
87-68-3	Hexachlorobutadiene	50	58.0	116	70-130
591-78-6	2-Hexanone	50	65.6	131* a	70-130
98-82-8	Isopropylbenzene	50	53.4	107	70-130
99-87-6	p-Isopropyltoluene	50	59.0	118	70-130
1634-04-4	Methyl Tert Butyl Ether	50	45.0	90	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	42.9	86	70-130
74-95-3	Methylene bromide	50	51.0	102	70-130
75-09-2	Methylene chloride	50	44.5	89	70-130
91-20-3	Naphthalene	50	45.3	91	70-130
103-65-1	n-Propylbenzene	50	51.2	102	70-130
100-42-5	Styrene	50	56.8	114	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	62.3	125	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	53.6	107	70-130
127-18-4	Tetrachloroethene	50	57.2	114	70-130
108-88-3	Toluene	50	49.7	99	70-130
87-61-6	1,2,3-Trichlorobenzene	50	51.1	102	70-130
120-82-1	1,2,4-Trichlorobenzene	50	52.8	106	70-130
71-55-6	1,1,1-Trichloroethane	50	53.2	106	70-130
79-00-5	1,1,2-Trichloroethane	50	48.3	97	70-130
79-01-6	Trichloroethene	50	50.1	100	70-130
75-69-4	Trichlorofluoromethane	50	53.2	106	70-130
96-18-4	1,2,3-Trichloropropane	50	51.4	103	70-130
95-63-6	1,2,4-Trimethylbenzene	50	55.5	111	70-130
108-67-8	1,3,5-Trimethylbenzene	50	55.9	112	70-130
108-05-4	Vinyl Acetate	50	49.5	99	70-130
75-01-4	Vinyl chloride	50	44.3	89	70-130
	m,p-Xylene	100	114	114	70-130
95-47-6	o-Xylene	50	55.9	112	70-130
1330-20-7	Xylene (total)	150	170	113	70-130

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-BS	H60609.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	106%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

6.2.1

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	50.1	100	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dihromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%

6.2.2

6

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19900-13MS	H60622.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13MSD	H60623.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13	H60617.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	MC19900-13 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	186	74	178	71	4	70-130/30
107-02-8	Acrolein	ND		1250	692	55* [a]	684	55* [a]	1	70-130/30
107-13-1	Acrylonitrile	ND		250	185	74	187	75	1	70-130/30
71-43-2	Benzene	ND		250	271	108	273	109	1	70-130/30
108-86-1	Bromobenzene	ND		250	306	122	307	123	0	70-130/30
74-97-5	Bromochloromethane	ND		250	265	106	263	105	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	290	116	286	114	1	70-130/30
75-25-2	Bromoform	ND		250	297	119	295	118	1	70-130/30
74-83-9	Bromomethane	ND		250	258	103	254	102	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	218	87	216	86	1	70-130/30
104-51-8	n-Butylbenzene	ND		250	299	120	287	115	4	70-130/30
135-98-8	sec-Butylbenzene	ND		250	293	117	285	114	3	70-130/30
98-06-6	tert-Butylbenzene	ND		250	294	118	287	115	2	70-130/30
75-15-0	Carbon disulfide	ND		250	220	88	222	89	1	70-130/30
56-23-5	Carbon tetrachloride	ND		250	313	125	311	124	1	70-130/30
108-90-7	Chlorobenzene	ND		250	296	118	286	114	3	70-130/30
75-00-3	Chloroethane	ND		250	252	101	245	98	3	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	7.0	3* [a]	6.4	3* [a]	9	70-130/30
67-66-3	Chloroform	ND		250	263	105	252	101	4	70-130/30
74-87-3	Chloromethane	ND		250	275	110	265	106	4	70-130/30
95-49-8	o-Chlorotoluene	ND		250	274	110	272	109	1	70-130/30
106-43-4	p-Chlorotoluene	ND		250	286	114	277	111	3	70-130/30
124-48-1	Dibromochloromethane	ND		250	296	118	293	117	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	287	115	280	112	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	293	117	288	115	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	290	116	283	113	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	265	106	247	99	7	70-130/30
75-34-3	1,1-Dichloroethane	3.8		250	244	96	238	94	2	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	259	104	260	104	0	70-130/30
75-35-4	1,1-Dichloroethene	0.48	J	250	267	107	261	104	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	33.1		250	283	100	280	99	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	250	100	246	98	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	249	100	248	99	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	294	118	285	114	3	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	290	116	279	112	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	280	112	272	109	3	70-130/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19900-13MS	H60622.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13MSD	H60623.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13	H60617.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	MC19900-13 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	240	96	238	95	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	252	101	248	99	2	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1190	95	1250	100	5	70-130/30
97-63-2	Ethyl methacrylate	ND		250	235	94	237	95	1	72-139/30
100-41-4	Ethylbenzene	ND		250	328	131* [a]	313	125	5	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	306	122	304	122	1	70-130/30
591-78-6	2-Hexanone	ND		250	244	98	245	98	0	70-130/30
98-82-8	Isopropylbenzene	ND		250	302	121	290	116	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	319	128	311	124	3	70-130/30
1634-04-4	Methyl Tert Bntyl Ether	ND		250	240	96	241	96	0	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	218	87	220	88	1	70-130/30
74-95-3	Methylene bromide	ND		250	273	109	274	110	0	70-130/30
75-09-2	Methylene chloride	ND		250	241	96	236	94	2	70-130/30
91-20-3	Naphthalene	ND		250	243	97	249	100	2	70-130/30
103-65-1	n-Propylbenzene	ND		250	286	114	277	111	3	70-130/30
100-42-5	Styrene	ND		250	326	130	316	126	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	344	138* [a]	343	137* [a]	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	300	120	300	120	0	70-130/30
127-18-4	Tetrachloroethene	0.47	J	250	336	134* [a]	320	128	5	70-130/30
108-88-3	Toluene	ND		250	278	111	271	108	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	264	106	271	108	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	276	110	277	111	0	70-130/30
71-55-6	1,1,1-Trichloroethane	10.3		250	293	113	280	108	5	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	261	104	251	100	4	70-130/30
79-01-6	Trichloroethene	2.1		250	275	109	268	106	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	242	97	231	92	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	264	106	265	106	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	303	121	296	118	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	305	122	300	120	2	70-130/30
108-05-4	Vinyl Acetate	ND		250	280	112	276	110	1	70-130/30
75-01-4	Vinyl chloride	ND		250	216	86	212	85	2	70-130/30
	m,p-Xylene	ND		500	655	131* [a]	637	127	3	70-130/30
95-47-6	o-Xylene	ND		250	319	128	311	124	3	70-130/30
1330-20-7	Xylene (total)	ND		750	974	130	948	126	3	70-130/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19900-13MS	H60622.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13MSD	H60623.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13	H60617.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-1, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Surrogate Recoveries	MS	MSD	MC19900-13	Limits
1868-53-7	Dibromofluoromethane	93%	92%	93%	70-130%
2037-26-5	Toluene-D8	99%	99%	102%	70-130%
460-00-4	4-Bromofluorobenzene	106%	105%	111%	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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

6.3.2

The QC reported here applies to the following samples: Method: SW846 8260B

MC19816-5

CAS No.	Compound	MC19922-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		250	249	100	228	91	9	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC19922-1	Limits
1868-53-7	Dibromofluoromethane	93%	96%	89%	70-130%
2037-26-5	Toluene-D8	102%	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	105%	105%	111%	70-130%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2004-CC1993	Injection Date:	04/21/13
Lab File ID:	H60608.D	Injection Time:	08:24
Instrument ID:	GCMSH	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	154965	8.70	218326	9.57	99937	12.83	129958	15.39	29574	6.28
Upper Limit [a]	309930	9.20	436652	10.07	199874	13.33	259916	15.89	59148	6.78
Lower Limit [b]	77483	8.20	109163	9.07	49969	12.33	64979	14.89	14787	5.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2004-BS	163020	8.70	229494	9.57	104143	12.83	133312	15.39	33441	6.27
MSH2004-MB	145550	8.70	197728	9.57	84013	12.83	101252	15.40	29106	6.28
MC19816-1	147365	8.70	203260	9.57	87132	12.83	102479	15.40	27781	6.29
ZZZZZZ	144580	8.70	194111	9.57	83290	12.83	97794	15.40	27275	6.28
ZZZZZZ	141022	8.70	189693	9.57	82031	12.83	98340	15.40	27036	6.27
ZZZZZZ	142710	8.70	190282	9.57	81102	12.83	96563	15.40	25281	6.28
ZZZZZZ	145496	8.70	194678	9.57	82263	12.83	100439	15.40	28858	6.28
MC19900-13	142470	8.70	192688	9.57	82532	12.83	99547	15.40	27747	6.28
MC19816-6	138544	8.70	188517	9.57	80004	12.83	91400	15.40	27888	6.29
ZZZZZZ	143120	8.70	198907	9.57	82208	12.83	101868	15.39	27880	6.28
ZZZZZZ	156028	8.70	212661	9.56	91569	12.83	119347	15.39	28890	6.28
ZZZZZZ	173931	8.70	233175	9.57	97601	12.83	123210	15.40	35917	6.28
MC19900-13MS	189888	8.70	268508	9.57	114380	12.83	148674	15.39	37942	6.27
MC19900-13MSD	193472	8.70	271159	9.57	117784	12.83	151552	15.39	38346	6.28
ZZZZZZ	175882	8.70	246929	9.57	98499	12.83	119937	15.40	34796	6.27
ZZZZZZ	181038	8.70	259902	9.57	101898	12.83	119582	15.40	36324	6.28
ZZZZZZ	168624	8.70	230539	9.57	94123	12.83	111269	15.40	33289	6.28
MC19816-3	159092	8.70	226057	9.57	89699	12.83	104812	15.40	31168	6.28
MC19816-4	150930	8.70	216411	9.57	86931	12.83	100037	15.40	28783	6.28
MC19816-5	145114	8.70	217266	9.57	84982	12.83	95656	15.40	27874	6.27
ZZZZZZ	145551	8.70	207135	9.57	84782	12.83	100392	15.40	27657	6.27
ZZZZZZ	138148	8.70	196399	9.57	79531	12.83	94309	15.40	26066	6.28

IS 1 = Pentaflnorobenzene
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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2005-CC1993	Injection Date:	04/22/13
Lab File ID:	H60638.D	Injection Time:	08:42
Instrument ID:	GCMSH	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	145518	8.70	203839	9.57	92365	12.82	122447	15.39	25920	6.27
Upper Limit [a]	291036	9.20	407678	10.07	184730	13.32	244894	15.89	51840	6.77
Lower Limit [b]	72759	8.20	101920	9.07	46183	12.32	61224	14.89	12960	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2005-BS	153131	8.70	210431	9.57	97000	12.82	124939	15.39	29597	6.27
MSH2005-MB	141357	8.70	190495	9.57	79390	12.83	97297	15.40	27529	6.28
ZZZZZZ	145372	8.70	194657	9.57	82893	12.82	97308	15.40	28465	6.27
ZZZZZZ	136877	8.70	185060	9.57	78268	12.83	93270	15.40	25790	6.28
ZZZZZZ	140480	8.70	184085	9.57	79168	12.83	102070	15.39	26872	6.28
ZZZZZZ	151215	8.70	205268	9.57	84612	12.83	112538	15.39	30302	6.28
ZZZZZZ	145544	8.70	190398	9.57	82699	12.83	96284	15.40	25141	6.28
ZZZZZZ	146421	8.70	207407	9.56	83715	12.83	105266	15.39	26809	6.27
ZZZZZZ	77186	8.70	103196	9.57	43628[c]	12.82	51114[c]	15.39	13455	6.28
ZZZZZZ	137069	8.70	186849	9.57	80208	12.83	101333	15.40	28083	6.28
MC19816-5	139308	8.70	192444	9.57	79270	12.83	94053	15.40	26423	6.28
ZZZZZZ	137830	8.70	187984	9.57	78530	12.83	94049	15.40	27423	6.28
ZZZZZZ	133472	8.70	185664	9.57	77724	12.83	92782	15.40	26452	6.27
MC19922-1MS	142688	8.70	195289	9.57	89389	12.82	119300	15.39	27185	6.27
MC19922-1MSD	147065	8.70	202105	9.57	90566	12.83	118534	15.39	27790	6.27
MC19922-1	145886	8.70	197741	9.57	83263	12.83	102309	15.39	29211	6.27
ZZZZZZ	141347	8.70	190076	9.57	79817	12.83	96540	15.39	27936	6.28
ZZZZZZ	134414	8.70	178829	9.57	75395	12.83	86839	15.40	25563	6.28
ZZZZZZ	135303	8.70	177608	9.57	77080	12.83	86755	15.40	26425	6.27
ZZZZZZ	133099	8.70	178493	9.57	76610	12.83	88204	15.40	27318	6.28

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 due to possible matrix interference. Confirmed by reanalysis.

6.4.2 6

Volatile Surrogate Recovery Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19816-1	H60612.D	91.0	102.0	113.0
MC19816-3	H60628.D	86.0	97.0	112.0
MC19816-4	H60629.D	88.0	98.0	115.0
MC19816-5	H60653.D	87.0	99.0	113.0
MC19816-5	H60630.D	88.0	96.0	116.0
MC19816-6	H60618.D	90.0	101.0	115.0
MC19900-13MS	H60622.D	93.0	99.0	106.0
MC19900-13MSD	H60623.D	92.0	99.0	105.0
MC19922-1MS	H60656.D	93.0	102.0	105.0
MC19922-1MSD	H60657.D	96.0	99.0	105.0
MSH2004-BS	H60609.D	96.0	101.0	106.0
MSH2004-MB	H60611.D	90.0	102.0	111.0
MSH2005-BS	H60639.D	94.0	101.0	104.0
MSH2005-MB	H60642.D	89.0	103.0	113.0

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
- Blauk Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19816-3, MC19816-4, MC19816-5, MC19816-6

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	3.5	5.0	0.51	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl pheuyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl henzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	53%	15-110%
4165-62-2	Phenol-d5	34%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	92%	30-130%
321-60-8	2-Fluorobiphenyl	88%	30-130%
1718-51-0	Terphenyl-d14	89%	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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-MB	I82727.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19816-3, MC19816-4, MC19816-5, MC19816-6

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 Recoverics		Limits
367-12-4	2-Fluorophenol	48%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	79%	15-110%
4165-60-0	Nitrobenzene-d5	81%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	35.5	36	30-130
95-57-8	2-Chlorophenol	100	108	108	30-130
59-50-7	4-Chloro-3-methyl phenol	100	113	113	30-130
120-83-2	2,4-Dichlorophenol	100	120	120	30-130
105-67-9	2,4-Dimethylphenol	100	110	110	30-130
51-28-5	2,4-Dinitrophenol	100	119	119	30-130
534-52-1	4,6-Dinitro-o-cresol	100	127	127	30-130
95-48-7	2-Methylphenol	100	90.0	90	30-130
	3&4-Methylphenol	200	183	92	30-130
88-75-5	2-Nitrophenol	100	123	123	30-130
100-02-7	4-Nitrophenol	100	59.8	60	30-130
87-86-5	Pentachlorophenol	100	125	125	30-130
108-95-2	Phenol	100	56.2	56	30-130
95-95-4	2,4,5-Trichlorophenol	100	130	130	30-130
88-06-2	2,4,6-Trichlorophenol	100	126	126	30-130
62-53-3	Aniline	50	19.9	40	40-140
101-55-3	4-Bromophenyl phenyl ether	50	45.9	92	40-140
85-68-7	Butyl benzyl phthalate	50	46.0	92	40-140
100-51-6	Benzyl Alcohol	50	28.2	56	40-140
91-58-7	2-Chloronaphthalene	50	46.6	93	40-140
106-47-8	4-Chloroaniline	50	32.1	64	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	45.6	91	40-140
111-44-4	bis(2-Chloroethyl)ether	50	42.7	85	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	51.9	104	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	46.9	94	40-140
122-66-7	1,2-Diphenylhydrazine	50	45.8	92	40-140
121-14-2	2,4-Dinitrotoluene	50	47.2	94	40-140
606-20-2	2,6-Dinitrotoluene	50	50.3	101	40-140
91-94-1	3,3'-Dichlorobenzidine	50	5.9	12* a	40-140
132-64-9	Dibenzofuran	50	44.3	89	40-140
84-74-2	Di-n-butyl phthalate	50	46.2	92	40-140
117-84-0	Di-n-octyl phthalate	50	52.3	105	40-140
84-66-2	Diethyl phthalate	50	44.8	90	40-140
131-11-3	Dimethyl phthalate	50	33.3	67	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.4	97	40-140
118-74-1	Hexachlorobenzene	50	46.8	94	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	17.7	35* a	40-140
67-72-1	Hexachloroethane	50	38.5	77	40-140
78-59-1	Isophorone	50	49.0	98	40-140
88-74-4	2-Nitroaniline	50	47.8	96	40-140
99-09-2	3-Nitroaniline	50	35.6	71	40-140
100-01-6	4-Nitroaniline	50	42.4	85	40-140
98-95-3	Nitrobenzene	50	44.7	89	40-140
62-75-9	n-Nitrosodimethylamine	50	28.6	57	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	48.2	96	40-140
86-30-6	N-Nitrosodiphenylamine	50	45.4	91	40-140
110-86-1	Pyridine	50	21.8	44	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	56%	15-110%
4165-62-2	Phenol-d5	38%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	93%	30-130%
321-60-8	2-Fluorobiphenyl	90%	30-130%
1718-51-0	Terphenyl-d14	90%	30-130%

(a) Ontside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

7.2.1

7

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-BS	I82728.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.5	79	40-140
208-96-8	Acenaphthylene	50	31.2	62	40-140
120-12-7	Anthracene	50	40.8	82	40-140
56-55-3	Benzo(a)anthracene	50	41.3	83	40-140
50-32-8	Benzo(a)pyrene	50	36.5	73	40-140
205-99-2	Benzo(b)fluoranthene	50	38.3	77	40-140
191-24-2	Benzo(g,h,i)perylene	50	45.0	90	40-140
207-08-9	Benzo(k)fluoranthene	50	42.4	85	40-140
218-01-9	Chrysene	50	39.4	79	40-140
53-70-3	Dibenzo(a,h)anthracene	50	40.3	81	40-140
206-44-0	Fluoranthene	50	41.3	83	40-140
86-73-7	Fluorene	50	37.2	74	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.5	79	40-140
90-12-0	1-Methylnaphthalene	50	38.4	77	40-140
91-57-6	2-Methylnaphthalene	50	37.8	76	40-140
85-01-8	Phenanthrene	50	40.6	81	40-140
129-00-0	Pyrene	50	40.8	82	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	50%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	15-110%
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	76%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	MC19800-2 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	60.7	61	59.1	59	3	30-130/20
95-57-8	2-Chlorophenol	ND		100	111	111	112	112	1	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	119	119	117	117	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	126	126	125	125	1	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	113	113	114	114	1	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	128	128	123	123	4	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	136	136* [a]	135	135* [a]	1	30-130/20
95-48-7	2-Methylphenol	ND		100	91.3	91	92.1	92	1	30-130/20
	3&4-Methylphenol	ND		200	189	95	185	93	2	30-130/20
88-75-5	2-Nitrophenol	ND		100	130	130	131	131* [a]	1	30-130/20
100-02-7	4-Nitrophenol	ND		100	60.9	61	60.6	61	0	30-130/20
87-86-5	Pentachlorophenol	ND		100	138	138* [a]	131	131* [a]	5	30-130/20
108-95-2	Phenol	2.7	J	100	52.1	49	52.5	50	1	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	137	137* [a]	134	134* [a]	2	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	134	134* [a]	130	130	3	30-130/20
62-53-3	Aniline	ND		50	21.8	44	23.2	46	6	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	46.8	94	46.2	92	1	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	48.3	97	47.2	94	2	40-140/20
100-51-6	Benzyl Alcohol	ND		50	29.3	59	31.4	63	7	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	47.9	96	47.7	95	0	40-140/20
106-47-8	4-Chloroaniline	ND		50	30.6	61	29.7	59	3	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	45.6	91	45.6	91	0	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	42.7	85	44.6	89	4	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	52.1	104	51.9	104	0	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	47.3	95	46.8	94	1	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	47.2	94	47.8	96	1	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	47.8	96	47.4	95	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	50.5	101	50.6	101	0	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	5.7	11* [b]	6.0	12* [b]	5	40-140/20
132-64-9	Dibenzofuran	ND		50	45.4	91	44.4	89	2	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	47.1	94	46.2	92	2	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	54.1	108	52.5	105	3	40-140/20
84-66-2	Diethyl phthalate	ND		50	46.0	92	45.2	90	2	40-140/20
131-11-3	Dimethyl phthalate	ND		50	37.5	75	35.4	71	6	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	3.1		50	49.8	93	48.8	91	2	40-140/20
118-74-1	Hexachlorobenzene	ND		50	48.9	98	48.0	96	2	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	MC19800-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	19.2	38* [b]	18.4	37* [b]	4	40-140/20
67-72-1	Hexachloroethane	ND		50	40.2	80	42.2	84	5	40-140/20
78-59-1	Isophorone	ND		50	49.2	98	49.8	100	1	40-140/20
88-74-4	2-Nitroaniline	ND		50	48.3	97	48.4	97	0	40-140/20
99-09-2	3-Nitroaniline	ND		50	32.1	64	32.7	65	2	40-140/20
100-01-6	4-Nitroaniline	ND		50	42.5	85	43.4	87	2	40-140/20
98-95-3	Nitrobenzene	ND		50	45.1	90	47.0	94	4	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	27.7	55	28.3	57	2	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	47.9	96	48.3	97	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	47.1	94	46.1	92	2	40-140/20
110-86-1	Pyridine	ND		50	21.9	44	21.2	42	3	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-2	Limits
367-12-4	2-Fluorophenol	52%	53%	49%	15-110%
4165-62-2	Phenol-d5	35%	35%	32%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	95%	98%	15-110%
4165-60-0	Nitrobenzene-d5	93%	95%	89%	30-130%
321-60-8	2-Fluorobiphenyl	91%	92%	87%	30-130%
1718-51-0	Terphenyl-d14	91%	93%	93%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
OP32682-MS	I82729.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
OP32682-MSD	I82730.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
MC19800-3	I82731.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19816-3, MC19816-4, MC19816-5, MC19816-6

7.3.2

7

CAS No.	Compound	MC19800-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	39.9	80	40.1	80	1	40-140/20
208-96-8	Acenaphthylene	ND		50	31.6	63	31.8	64	1	40-140/20
120-12-7	Anthracene	ND		50	41.3	83	41.2	82	0	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	41.8	84	41.9	84	0	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	36.8	74	37.2	74	1	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	38.3	77	39.4	79	3	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	45.4	91	45.9	92	1	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	43.6	87	42.5	85	3	40-140/20
218-01-9	Chrysene	ND		50	40.4	81	39.9	80	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	40.3	81	40.6	81	1	40-140/20
206-44-0	Flnoranthene	ND		50	41.9	84	41.7	83	0	40-140/20
86-73-7	Fluorene	ND		50	37.6	75	37.4	75	I	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.8	80	40.0	80	1	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	40.0	80	39.9	80	0	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	39.3	79	39.2	78	0	40-140/20
85-01-8	Phenanthrene	ND		50	41.4	83	41.1	82	1	40-140/20
129-00-0	Pyrene	ND		50	41.7	83	41.5	83	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-3	Limits
367-12-4	2-Fluorophenol	49%	49%	44%	15-110%
4165-62-2	Phenol-d5	31%	32%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	80%	78%	15-110%
4165-60-0	Nitrobenzene-d5	80%	79%	77%	30-130%
321-60-8	2-Fluorobiphenyl	77%	76%	78%	30-130%
1718-51-0	Terphenyl-d14	80%	82%	81%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2952-CC2937	Injection Date:	04/19/13
Lab File ID:	F63169.D	Injection Time:	08:03
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	26965	4.06	100596	5.05	64690	6.49	121165	7.84	140401	10.63	125531	12.10
Upper Limit [a]	53930	4.56	201192	5.55	129380	6.99	242330	8.34	280802	11.13	251062	12.60
Lower Limit [b]	13483	3.56	50298	4.55	32345	5.99	60583	7.34	70201	10.13	62766	11.60
Lab Sample ID	IS I AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT	IS 6 AREA	RT
OP32681-MB	21226	4.06	79894	5.05	51442	6.49	95555	7.84	108323	10.62	100710	12.10
OP32681-BS	21277	4.06	80083	5.06	51007	6.49	96593	7.85	109464	10.63	101150	12.10
OP32681-MS	21834	4.06	81093	5.05	51106	6.49	95945	7.85	107570	10.63	97193	12.10
OP32681-MSD	19466	4.06	73354	5.05	46863	6.49	88333	7.84	99932	10.63	91498	12.10
MC19800-2	18953	4.06	72238	5.05	46161	6.49	85827	7.84	96461	10.62	91108	12.09
ZZZZZZ	18531	4.06	71378	5.05	45366	6.49	82508	7.84	98329	10.62	93986	12.10
ZZZZZZ	20715	4.06	76937	5.05	48376	6.49	86774	7.84	107848	10.62	101918	12.10
ZZZZZZ	20319	4.06	77713	5.05	49940	6.49	93335	7.84	107821	10.63	102870	12.10
ZZZZZZ	20374	4.06	74799	5.05	48121	6.49	88844	7.84	101827	10.62	98665	12.10
ZZZZZZ	23166	4.06	85839	5.05	54949	6.49	102196	7.84	115402	10.62	110980	12.10
ZZZZZZ	19637	4.06	74741	5.05	46722	6.49	86792	7.84	98279	10.62	88652	12.10
MC19816-3	17899	4.06	67412	5.05	42872	6.49	78035	7.84	89138	10.62	81087	12.10
MC19816-4	18353	4.06	69053	5.05	44757	6.49	79546	7.84	91283	10.62	84577	12.10
ZZZZZZ	19039	4.06	67789	5.05	42435	6.49	75658	7.84	92757	10.63	90851	12.10
MC19816-5	17484	4.06	65541	5.05	41935	6.49	75092	7.84	85083	10.62	78046	12.10
MC19816-6	16753	4.06	64226	5.05	40927	6.49	74940	7.84	85678	10.62	79138	12.10
ZZZZZZ	21424	4.06	78351	5.05	47525	6.49	87765	7.84	100055	10.62	92231	12.10
ZZZZZZ	14882	4.06	56289	5.05	36520	6.49	66449	7.84	76983	10.62	71026	12.09
ZZZZZZ	17836	4.06	66536	5.05	41919	6.49	76671	7.84	88686	10.62	81904	12.10
ZZZZZZ	17739	4.06	67482	5.05	42611	6.49	79842	7.84	91406	10.62	85552	12.09
ZZZZZZ	16939	4.06	63790	5.05	41000	6.49	74543	7.84	86084	10.62	79340	12.10
ZZZZZZ	19408	4.06	70122	5.05	42447	6.49	77859	7.84	92969	10.62	85770	12.09
ZZZZZZ	18126	4.06	67802	5.05	43620	6.49	77842	7.84	87315	10.63	81870	12.10
ZZZZZZ	16406	4.06	62419	5.05	39403	6.49	72880	7.84	84791	10.62	75333	12.10

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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
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	179692	3.39	460156	4.35	237134	5.75	434209	6.98	344879	9.71	639898	11.10
Upper Limit [a]	359384	3.89	920312	4.85	474268	6.25	868418	7.48	689758	10.21	1279796	11.60
Lower Limit [b]	89846	2.89	230078	3.85	118567	5.25	217105	6.48	172440	9.21	319949	10.60
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
OP32693-MB	139424	3.38	358365	4.35	182528	5.75	318374	6.98	250282	9.70	486696	11.10
OP32693-BS	139690	3.38	355246	4.35	183610	5.75	323862	6.99	256817	9.71	499776	11.10
OP32693-MS	130368	3.38	333129	4.35	171280	5.75	301573	6.98	237538	9.71	463846	11.10
OP32693-MSD	125331	3.38	320948	4.35	165486	5.74	297198	6.98	233451	9.70	451858	11.09
MC19800-9	144481	3.38	377139	4.35	189735	5.74	326402	6.98	266470	9.70	515316	11.09
ZZZZZZ	131278	3.38	334825	4.35	163915	5.74	287165	6.98	232011	9.70	458538	11.10
ZZZZZZ	122472	3.38	323344	4.35	167074	5.74	292322	6.98	238730	9.70	465652	11.09
OP32682-MB	148798	3.38	379002	4.35	194285	5.74	343460	6.98	278659	9.70	542303	11.09
OP32682-BS	153296	3.39	386293	4.35	198122	5.75	354075	6.99	274577	9.71	521264	11.10
OP32682-MS	155723	3.39	391581	4.35	201115	5.75	357436	6.99	274726	9.71	525274	11.10
OP32682-MSD	146672	3.39	374500	4.35	193256	5.75	346963	6.99	272228	9.71	525153	11.10
MC19800-3	157230	3.38	402876	4.35	203336	5.74	358154	6.98	279045	9.70	551300	11.10
ZZZZZZ	150080	3.38	382672	4.35	196813	5.74	351141	6.98	283440	9.70	565244	11.09
ZZZZZZ	137342	3.39	341792	4.35	173991	5.74	308917	6.98	247995	9.70	490916	11.09
ZZZZZZ	151165	3.39	373443	4.35	189460	5.74	335217	6.98	270943	9.70	532909	11.09
ZZZZZZ	174567	3.39	458604	4.35	224352	5.75	394969	6.98	312619	9.71	602698	11.10
MC19816-3	149620	3.39	388888	4.35	201733	5.75	364947	6.98	299036	9.70	580990	11.10
MC19816-4	145419	3.39	372209	4.35	193062	5.75	347268	6.98	283829	9.70	562118	11.10
MC19816-5	154647	3.39	396581	4.35	200338	5.74	352331	6.98	283827	9.71	546027	11.10
MC19816-6	153832	3.38	398126	4.35	203856	5.74	358521	6.98	292968	9.70	571587	11.10
ZZZZZZ	140627	3.38	367318	4.35	183513	5.75	337924	6.98	279273	9.71	547113	11.10
ZZZZZZ	124448	3.38	327531	4.35	173742	5.74	309890	6.98	258582	9.70	503738	11.10
ZZZZZZ	144516	3.38	373750	4.35	192239	5.74	349202	6.98	292199	9.71	574680	11.10
ZZZZZZ	141757	3.38	378382	4.35	196962	5.75	359156	6.98	302709	9.70	592309	11.10
ZZZZZZ	150396	3.39	398302	4.35	206391	5.75	372293	6.98	314997	9.71	621297	11.10
ZZZZZZ	136149	3.39	356418	4.36	185150	5.75	333478	6.99	275713	9.71	529195	11.10
ZZZZZZ	142746	3.38	376341	4.35	192528	5.75	351934	6.99	292685	9.71	548493	11.11
ZZZZZZ	152229	3.38	407303	4.35	214602	5.74	380880	6.98	327110	9.71	617058	11.10
ZZZZZZ	129337	3.39	342167	4.35	182913	5.74	332736	6.98	285283	9.70	558557	11.10

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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
Instrument ID:	GCMSI	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.

7.4.2

7

Semivolatile Internal Standard Area Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU698-CC623	Injection Date:	04/24/13
Lab File ID:	U13741.D	Injection Time:	11:53
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	118113	2.86	424400	3.83	273757	5.21	471959	6.41	508710	9.07	485229	10.59
Upper Limit [a]	236226	3.36	848800	4.33	547514	5.71	943918	6.91	1017420	9.57	970458	11.09
Lower Limit [b]	59057	2.36	212200	3.33	136879	4.71	235980	5.91	254355	8.57	242615	10.09
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
MC19816-3	145205	2.86	540622	3.81	319563	5.21	563287	6.40	617738	9.06	568396	10.58
MC19816-4	145897	2.86	547273	3.82	331656	5.21	590400	6.40	645543	9.06	612102	10.59
MC19816-5	141208	2.86	521647	3.81	319734	5.21	557534	6.40	592943	9.06	557974	10.58
ZZZZZZ	144084	2.86	527521	3.82	315201	5.21	557560	6.40	604015	9.06	561806	10.58
ZZZZZZ	113587	2.86	416581	3.82	256355	5.21	460136	6.40	523925	9.05	498179	10.58
ZZZZZZ	135778	2.86	496148	3.81	298910	5.21	530571	6.40	617127	9.06	578428	10.59
ZZZZZZ	138329	2.86	513288	3.81	319799	5.21	547555	6.40	621509	9.06	586036	10.58
ZZZZZZ	136755	2.86	510076	3.81	311542	5.21	553431	6.40	620086	9.06	587331	10.59
OP32739-MB	130209	2.86	478843	3.81	282881	5.21	488333	6.40	498093	9.06	451652	10.58
OP32739-BS	136850	2.86	483229	3.82	28799I	5.21	477718	6.40	495135	9.06	437305	10.58
ZZZZZZ	122656	2.86	450860	3.81	265337	5.21	441761	6.40	435906	9.05	388132	10.58
ZZZZZZ	124641	2.86	456174	3.81	274224	5.21	477263	6.40	508729	9.05	446132	10.58
ZZZZZZ	119797	2.86	435359	3.82	200055	5.23	249462	6.45	363621	9.15	403355	10.67
ZZZZZZ	97453	2.86	342301	3.82	172858	5.24	220808*	6.46	318477	9.17	362806	10.70
ZZZZZZ	84096	2.86	303493	3.82	193899	5.21	347289	6.40	399933	9.06	369780	10.59
ZZZZZZ	93271	2.86	341059	3.82	216267	5.21	389886	6.40	440664	9.06	409907	10.59
ZZZZZZ	111436	2.86	399852	3.81	247037	5.21	416359	6.40	397321	9.06	333180	10.59
ZZZZZZ	108668	2.86	390635	3.82	246629	5.21	421283	6.40	445727	9.06	400674	10.59
ZZZZZZ	97078	2.86	346164	3.82	20969I	5.21	359215	6.40	402178	9.07	370891	10.60
ZZZZZZ	46767*	2.86	146936*	3.82	113178*	5.21	149426*	6.42	99243*	9.18	82380*	10.77

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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19816-3	U13742.D	42.0	39.0	74.0	72.0	74.0	69.0
MC19816-3	F63183.D	55.0	51.0	105.0	105.0	94.0	91.0
MC19816-4	U13743.D	36.0	34.0	64.0	67.0	65.0	60.0
MC19816-4	F63184.D	53.0	48.0	102.0	107.0	90.0	87.0
MC19816-5	U13744.D	34.0	29.0	66.0	66.0	64.0	69.0
MC19816-5	F63188.D	44.0	36.0	92.0	86.0	81.0	88.0
MC19816-6	F63189.D	30.0	22.0	96.0	85.0	83.0	97.0
OP32681-BS	F63171.D	56.0	38.0	97.0	93.0	90.0	90.0
OP32681-MB	F63170.D	53.0	34.0	97.0	92.0	88.0	89.0
OP32681-MS	F63172.D	52.0	35.0	95.0	93.0	91.0	91.0
OP32681-MSD	F63173.D	53.0	35.0	95.0	95.0	92.0	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%

Semivolatile Surrogate Recovery Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19816-3	I82736.D	49.0	44.0	84.0	83.0	82.0	84.0
MC19816-4	I82737.D	47.0	43.0	81.0	83.0	81.0	81.0
MC19816-5	I82738.D	39.0	33.0	78.0	74.0	73.0	79.0
MC19816-6	I82739.D	28.0	20.0	79.0	74.0	74.0	88.0
OP32682-BS	I82728.D	50.0	33.0	81.0	80.0	76.0	81.0
OP32682-MB	I82727.D	48.0	33.0	79.0	81.0	78.0	80.0
OP32682-MS	I82729.D	49.0	31.0	81.0	80.0	77.0	80.0
OP32682-MSD	I82730.D	49.0	32.0	80.0	79.0	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%

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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-MB	BK23691.D	1	04/18/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19816-2, MC19816-3, MC19816-4, MC19816-5, MC19816-6

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)	99%	36-173%
460-00-4	Bromofluorobenzene (S)	106%	36-173%

8.1.1

Blank Spike Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-BS	BK23692.D	1	04/18/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19816-2, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.064	90	60-140
106-93-4	1,2-Dibromoethaue	0.071	0.070	99	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	96%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	36-173%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-MS	BK23693.D	1	04/18/13	NK	04/17/13	OP32696	GBK833
OP32696-MSD	BK23694.D	1	04/18/13	NK	04/17/13	OP32696	GBK833
MC19724-5	BK23700.D	1	04/19/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19816-2, MC19816-3, MC19816-4, MC19816-5, MC19816-6

CAS No.	Compound	MC19724-5 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		0.0727	0.058	80	0.057	77	2	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0727	0.072	99	0.073	99	1	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
460-00-4	Bromofluorobenzene (S)	99%	93%	84%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	103%	97%	36-173%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19816-2	BK23702.D	84.0	94.0
MC19816-3	BK23703.D	130.0	141.0
MC19816-4	BK23704.D	118.0	134.0
MC19816-5	BK23705.D	127.0	140.0
MC19816-6	BK23707.D	82.0	89.0
OP32696-BS	BK23692.D	96.0	104.0
OP32696-MB	BK23691.D	99.0	106.0
OP32696-MS	BK23693.D	99.0	104.0
OP32696-MSD	BK23694.D	93.0	103.0

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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/18/13
Lab File ID:	BK23684.D	Injection Time:	19:38
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23685.D	04/18/13	20:02	4.45	4.89
ZZZZZZ	BK23686.D	04/18/13	20:25	4.45	4.88
ZZZZZZ	BK23687.D	04/18/13	20:48	4.45	4.88
ZZZZZZ	BK23688.D	04/18/13	21:12	4.45	4.88
ZZZZZZ	BK23689.D	04/18/13	21:36	4.45	4.88
ZZZZZZ	BK23690.D	04/18/13	22:01	4.45	4.89
OP32696-MB	BK23691.D	04/18/13	22:25	4.45	4.89
OP32696-BS	BK23692.D	04/18/13	22:49	4.45	4.89
OP32696-MS	BK23693.D	04/18/13	23:13	4.45	4.89
OP32696-MSD	BK23694.D	04/18/13	23:38	4.45	4.89

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: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/19/13
Lab File ID:	BK23695.D	Injection Time:	00:03
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.89

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23696.D	04/19/13	00:28	4.45	4.89
ZZZZZZ	BK23697.D	04/19/13	00:53	4.45	4.88
ZZZZZZ	BK23698.D	04/19/13	01:18	4.45	4.88
ZZZZZZ	BK23699.D	04/19/13	01:44	4.45	4.88
MC19724-5	BK23700.D	04/19/13	02:09	4.45	4.89
ZZZZZZ	BK23701.D	04/19/13	02:34	4.45	4.89
MC19816-2	BK23702.D	04/19/13	02:59	4.45	4.89
MC19816-3	BK23703.D	04/19/13	03:25	4.45	4.88
MC19816-4	BK23704.D	04/19/13	03:50	4.45	4.88
MC19816-5	BK23705.D	04/19/13	04:15	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.2

GC Surrogate Retention Time Summary

Job Number: MC19816
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/19/13
Lab File ID:	BK23706.D	Injection Time:	04:41
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.89

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC19816-6	BK23707.D	04/19/13	05:06	4.45	4.89
ZZZZZZ	BK23708.D	04/19/13	05:31	4.45	4.88
ZZZZZZ	BK23709.D	04/19/13	05:56	4.45	4.89
ZZZZZZ	BK23710.D	04/19/13	06:19	4.45	4.88
ZZZZZZ	BK23711.D	04/19/13	06:43	4.45	4.89
ZZZZZZ	BK23712.D	04/19/13	07:06	4.45	4.89
ZZZZZZ	BK23713.D	04/19/13	07:30	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.3

Roxana Groundwater Quarterly – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19817

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/15/2013

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

Sample Identification	Sample Identification
P66-ROX-041113	P66-ROX-041113-EB
MW14-ROX-041113	TB-ROX-041113-HCL
TB-ROX-041113-ST	P74-ROX-041113
P57-ROX-041113	P58-ROX-041113
TB-ROX-041113-HCL-A	TB-ROX-041113-ST-A

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. Although not indicated in the laboratory case narrative, phenol was detected in the method blank, and VOCs were detected in the equipment blank. Samples P66-ROX-041113, P57-ROX-041113, and P58-ROX-041113 were diluted due to high levels of VOC target analytes. Additionally, the initial calibration verification for acrolein exceeded 50 percent difference (%D). These issues are addressed further in the appropriate sections below.

The cooler receipt form indicated two of two coolers were received by the laboratory at temperatures of 0.9ºC and 1.1 ºC, 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
P66-ROX-041113-EB	VOCs	Benzene	2.8 ug/L
P66-ROX-041113-EB	VOCs	n-Propylbenzene	0.58 ug/L
OP32681-MB	SVOCs	Phenol	3.5 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 required qualification. Please see Section 12.0 of this review for additional qualifications regarding samples associated with the equipment blank.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P74-ROX-041113	SVOCs	Phenol	-	**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
MSH2004-BS	VOCs	Acetone	**162**	NA	70-130
MSH2004-BS	VOCs	Acrolein	**52**	NA	70-130
MSH2004-BS	VOCs	Acrylonitrile	**69**	NA	70-130
MSH2004-BS	VOCs	2-Chloroethyl vinyl ether	**58**	NA	70-130
MSH2004-BS	VOCs	2-Hexanone	**131**	NA	70-130
MSH2005-BS	VOCs	Acetone	**158**	NA	70-130
MSH2005-BS	VOCs	Acrolein	**48**	NA	70-130
MSH2005-BS	VOCs	Acrylonitrile	**62**	NA	70-130
MSH2005-BS	VOCs	Carbon tetrachloride	**134**	NA	70-130
MSH2005-BS	VOCs	2-Chloroethyl vinyl ether	**68**	NA	70-130
MSH2005-BS	VOCs	1,1,1,2-Tetrachloroethane	**135**	NA	70-130
OP32681-BS	SVOCs	3,3'-Dichlorobenzidine	**12**	NA	40-140
OP32681-BS	SVOCs	Hexachlorocyclopentadiene	**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 MSH2004-BS and OP32681-BS were associated with the trip blank and equipment blank quality control samples and are not qualified.

Sample ID	Parameter	Analyte	Qualification
P66-ROX-041113	VOCs	Acrolein	**UJ**
P66-ROX-041113	VOCs	Acrylonitrile	**UJ**
P66-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW14-ROX-041113	VOCs	Acrolein	**UJ**
MW14-ROX-041113	VOCs	Acrylonitrile	**UJ**
MW14-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**
P57-ROX-041113	VOCs	Acrolein	**UJ**
P57-ROX-041113	VOCs	Acrylonitrile	**UJ**
P57-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**

Sample ID	Parameter	Analyte	Qualification
P58-ROX-041113	VOCs	Acrolein	**UJ**
P58-ROX-041113	VOCs	Acrylonitrile	**UJ**
P58-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**
P74-ROX-041113	VOCs	Acrolein	**UJ**
P74-ROX-041113	VOCs	Acrylonitrile	**UJ**
P74-ROX-041113	VOCs	2-Chloroethyl vinyl ether	**UJ**
P66-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P66-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW14-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW14-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**UJ**
P74-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P74-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**UJ**
P57-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P57-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**UJ**
P58-ROX-041113	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P58-ROX-041113	SVOCs	Hexachlorocyclopentadiene	**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 also used to qualify as estimated, however not reject, benzene data that was associated with equipment blank P66-ROX-041113-EB due to

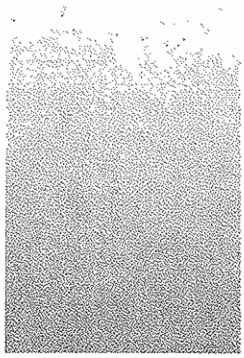
comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW14-ROX-041113	VOCs	Benzene	-	**J**

Additionally, although the initial calibration verification for acrolein exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of data was required.

New England ACCUTEST LABORATORIES

05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19817

Sampling Date: 04/11/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **114**

Reviewed on 5/15/2013

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)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8

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Sample Summary

Shell Oil

Job No: MC19817

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19817-1	04/11/13	09:30	LRBL	04/12/13	AQ	Ground Water	P66-ROX-041113
MC19817-2	04/11/13	09:45	LRBL	04/12/13	AQ	Equipment Blank	P66-ROX-041113-EB
MC19817-3	04/11/13	10:25	LRBL	04/12/13	AQ	Ground Water	MW14-ROX-041113
MC19817-4	04/11/13	00:00	LRBL	04/12/13	AQ	Trip Blank Water	TB-ROX-041113-HCL
MC19817-5	04/11/13	00:00	LRBL	04/12/13	AQ	Trip Blank Water	TB-ROX-041113-ST
MC19817-6	04/11/13	11:40	LRBL	04/12/13	AQ	Ground Water	P74-ROX-041113
MC19817-7	04/11/13	14:00	LRBL	04/12/13	AQ	Ground Water	P57-ROX-041113
MC19817-8	04/11/13	14:55	LRBL	04/12/13	AQ	Ground Water	P58-ROX-041113
MC19817-9	04/11/13	00:00	LRBL	04/12/13	AQ	Trip Blank Water	TB-ROX-041113-HCL-A
MC19817-10	04/11/13	00:00	LRBL	04/12/13	AQ	Trip Blank Water	TB-ROX-041113-ST-A

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19817
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	**Report Date**	4/26/2013 3:13:00 PM

6 Sample(s), 4 Trip Blank(s) were collected on 04/11/2013 and were received at Accutest on 04/12/2013 properly preserved, at 1.1 Deg. C and intact. These Samples received an Accutest job number of MC19817. 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:** MSH2004

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19900-13MS, MC19900-13MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification MSH1993-ICV1993 for acrolein exceeds 50% Difference. Acrolein is considered a difficult method analyte.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, 2-Hexanone, Acetone, Acrolein, Acrylonitrile are ontside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein, Ethylbenzene, m,p-Xylene, Tetrachloroethene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

Matrix AQ **Batch ID:** MSH2005

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19922-1MS, MC19922-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acetone, Acrolein, Acrylonitrile, Carbon tetrachloride are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,1,1,2-Tetrachloroethane, 2-Chloroethyl vinyl ether, Acrolein, Acrylonitrile 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, Acrolein, Acrylonitrile, Carbon disulfide 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: OP32681

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-2MS, MC19800-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MC19817-6 has compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- BS/BSD Recovery(s) for 3,3'-Dichlorobenzidine, Hexachlorocyclopentadiene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 4,6-Dinitro-o-cresol, Pentachlorophenol are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2,4,5-Trichlorophenol, 2-Nitrophenol, 4,6-Dinitro-o-cresol, Pentachlorophenol 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: OP32682

- 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) MC19800-3MS, MC19800-3MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP32696

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19724-5MS, MC19724-5MSD were nsed 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(MC19817).

Summary of Hits

Job Number: MC19817
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19817-1	P66-ROX-041113					
Benzene		44.4	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		19.9	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		24.9	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		10.4	5.0	0.64	ug/l	SW846 8260B
Chloroethane		0.65 J	2.0	0.50	ug/l	SW846 8260B
Ethylbenzene		3.6	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		287	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		9.3	5.0	0.57	ug/l	SW846 8260B
Methyl Tert Butyl Ether		86.0	1.0	0.41	ug/l	SW846 8260B
n-Propylbenzene		384	50	5.8	ug/l	SW846 8260B
Toluene		1.2	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		4.1 J	5.0	0.35	ug/l	SW846 8260B
Dibenzofuran		2.5	2.1	0.16	ug/l	SW846 8270C
Acenaphthene		1.1	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.28	0.11	0.014	ug/l	SW846 8270C BY SIM
Fluoranthene		0.072 J	0.11	0.034	ug/l	SW846 8270C BY SIM
Fluorene		1.7	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		68.1	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		13.1	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		0.91	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.087 J	0.11	0.037	ug/l	SW846 8270C BY SIM
MC19817-2	P66-ROX-041113-EB					
Benzene		2.8	0.50	0.24	ug/l	SW846 8260B
n-Propylbenzene		0.58 J	5.0	0.58	ug/l	SW846 8260B
MC19817-3	MW14-ROX-041113					
Benzene		12.5	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		2.1 J	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		4.8 J	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		1.6 J	5.0	0.64	ug/l	SW846 8260B
Isopropylbenzene		34.6	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		20.6	5.0	0.58	ug/l	SW846 8260B
Toluene		1.4	1.0	0.51	ug/l	SW846 8260B
m,p-Xylene		3.8	1.0	0.73	ug/l	SW846 8260B
Xylene (total)		4.3	1.0	0.58	ug/l	SW846 8260B
Acenaphthene		0.68	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.098 J	0.11	0.014	ug/l	SW846 8270C BY SIM
Benzo(a)anthracene		0.13	0.054	0.033	ug/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.054	0.054	0.026	ug/l	SW846 8270C BY SIM
Benzo(g,h,i)perylene		0.053 J	0.11	0.041	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC19817
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Fluoranthene		0.068 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.16	0.11	0.050	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		12.4	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		1.8	0.22	0.056	ug/l	SW846 8270C BY SIM
Phenanthrene		0.10	0.054	0.014	ug/l	SW846 8270C BY SIM
Pyrene		0.053 J	0.11	0.039	ug/l	SW846 8270C BY SIM
MC19817-4	TB-ROX-041113-HCL					
No hits reported in this sample.						
MC19817-5	TB-ROX-041113-ST					
No hits reported in this sample.						
MC19817-6	P74-ROX-041113					
Benzene		144	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		2.6 J	5.0	0.61	ug/l	SW846 8260B
Ethylbenzene		8.6	1.0	0.51	ug/l	SW846 8260B
Naphthalene		1.6 J	5.0	0.50	ug/l	SW846 8260B
Toluene		3.0	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		18.4	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		13.8	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		45.6	1.0	0.73	ug/l	SW846 8260B
o-Xylene		14.6	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		60.1	1.0	0.58	ug/l	SW846 8260B
Phenol		4.6 JB	5.2	0.53	ug/l	SW846 8270C
MC19817-7	P57-ROX-041113					
Benzene		141000	250	120	ug/l	SW846 8260B
Ethylbenzene		1190	500	250	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		494 J	2500	170	ug/l	SW846 8260B
Phenol		146	26	2.6	ug/l	SW846 8270C
Acenaphthene		0.63	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.12	0.10	0.014	ug/l	SW846 8270C BY SIM
Anthracene		0.073 J	0.10	0.018	ug/l	SW846 8270C BY SIM
Fluorene		0.76	0.10	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		34.8	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		45.3	0.20	0.053	ug/l	SW846 8270C BY SIM
Phenanthrene		0.74	0.051	0.013	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC19817
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/11/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19817-8	P58-ROX-041113					
Benzene		532000	1000	480	ug/l	SW846 8260B
Ethylbenzene		1280 J	2000	1000	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		926 J	10000	690	ug/l	SW846 8260B
3&4-Methylphenol		14.0	11	2.2	ug/l	SW846 8270C
Phenol		98.5	27	2.8	ug/l	SW846 8270C
Dibenzofuran		4.4	2.2	0.17	ug/l	SW846 8270C
Acenaphthene		1.5	0.11	0.015	ng/l	SW846 8270C BY SIM
Acenaphthylene		0.50	0.11	0.014	ug/l	SW846 8270C BY SIM
Benzo(a)anthracene		0.30	0.054	0.033	ug/l	SW846 8270C BY SIM
Benzo(a)pyrene		0.19	0.11	0.019	ug/l	SW846 8270C BY SIM
Benzo(b)fluoranthene		0.095	0.054	0.026	ug/l	SW846 8270C BY SIM
Benzo(g,h,i)perylene		0.074 J	0.11	0.041	ug/l	SW846 8270C BY SIM
Chrysene		0.32	0.11	0.079	ug/l	SW846 8270C BY SIM
Fluoranthene		0.19	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		2.2	0.11	0.050	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		69.2	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		96.1	2.2	0.56	ug/l	SW846 8270C BY SIM
Phenanthrene		2.1	0.054	0.014	ug/l	SW846 8270C BY SIM
Pyrene		0.55	0.11	0.039	ug/l	SW846 8270C BY SIM

MC19817-9 TB-ROX-041113-HCL-A

No hits reported in this sample.

MC19817-10 TB-ROX-041113-ST-A

No hits reported in this sample.

New England ACCUTEST LABORATORIES

4

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P66-ROX-041113		
Lab Sample ID:	MC19817-1	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60620.D	1	04/21/13	AMY	n/a	n/a	MSH2004
Run #2	H60652.D	10	04/22/13	KR	n/a	n/a	MSH2005

	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	10	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	44.4	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	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	10	2.4	ug/l	
104-51-8	n-Butylbenzene	19.9	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	24.9	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	10.4	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	0.65	2.0	0.50	ug/l	J
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:	P66-ROX-041113		
Lab Sample ID:	MC19817-1	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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	3.6	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	287	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	9.3	5.0	0.57	ug/l	
1634-04-4	Methyl Tert Butyl Ether	86.0	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	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	384 [a]	50	5.8	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	1.2	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-Trichluroethane	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	4.1	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 valne
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P66-ROX-041113		
Lab Sample ID:	MC19817-1	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%	88%	70-130%
2037-26-5	Toluene-D8	103%	100%	70-130%
460-00-4	4-Bromofluorobenzene	113%	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:	P66-ROX-041113		
Lab Sample ID:	MC19817-1	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63190.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimetbylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	ND	5.3	0.54	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.33	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.90	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.97	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.71	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UJ
132-64-9	Dibenzofuran	2.5	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.41	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-041113		
Lab Sample ID:	MC19817-1	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.6	ug/l	U
67-72-1	Hexachloroethane	ND	5.3	0.46	ug/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.29	ug/l	
99-09-2	3-Nitroauiline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.85	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.57	ug/l	
110-86-1	Pyridine	ND	11	0.54	ug/l	

CAS No.	Surrogate Recoveries	Run# I	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		15-110%
4165-62-2	Phenol-d5	45%		15-110%
118-79-6	2,4,6-Tribromophenol	94%		15-110%
4165-60-0	Nitrobenzene-d5	92%		30-130%
321-60-8	2-Fluorobiphenyl	86%		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 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-041113		
Lab Sample ID:	MC19817-1	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82740.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	1.1	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.28	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	0.072	0.11	0.034	ng/l	J
86-73-7	Fluorene	1.7	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	68.1	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	13.1	0.21	0.055	ng/l	
85-01-8	Phenanthrene	0.91	0.053	0.013	ug/l	
129-00-0	Pyrene	0.087	0.11	0.037	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		15-110%
4165-62-2	Phenol-d5	43%		15-110%
118-79-6	2,4,6-Tribromophenol	74%		15-110%
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	64%		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-041113		
Lab Sample ID:	MC19817-1	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23708.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	33.0 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	122%		36-173%
460-00-4	Bromofluorobenzene (S)	130%		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-041113-EB		
Lab Sample ID:	MC19817-2	Date Sampled:	04/11/13
Matrix:	AQ - Equipment Blank	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60616.D	1	04/21/13	AMY	n/a	n/a	MSH2004
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	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	2.8	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	10	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-Dichloroetheue	ND	1.0	0.41	ug/l	
156-59-2	cis-1,2-Dichloroetheue	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 Detectiou Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates au 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-041113-EB		
Lab Sample ID:	MC19817-2	Date Sampled:	04/11/13
Matrix:	AQ - Equipment Blank	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.58	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	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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041113-EB		
Lab Sample ID:	MC19817-2	Date Sampled:	04/11/13
Matrix:	AQ - Equipment Blank	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	103%		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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041113-EB		
Lab Sample ID:	MC19817-2	Date Sampled:	04/11/13
Matrix:	AQ - Equipment Blank	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63191.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
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	0.39	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.59	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.1	0.52	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.58	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.86	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.58	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.93	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.66	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.65	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.51	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.44	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-041113-EB		
Lab Sample ID:	MC19817-2	Date Sampled:	04/11/13
Matrix:	AQ - Equipment Blank	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.51	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.44	ug/l	
78-59-1	Isophorone	ND	5.1	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.51	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.4	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.51	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.82	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.55	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	96%		15-110%
4165-60-0	Nitrobenzene-d5	81%		30-130%
321-60-8	2-Fluorobiphenyl	77%		30-130%
1718-51-0	Terphenyl-d14	95%		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-041113-EB		
Lab Sample ID:	MC19817-2	Date Sampled:	04/11/13
Matrix:	AQ - Equipment Blank	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82741.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	Anthraceue	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	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	0.059	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	0.047	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-Methyluaphthalene	ND	0.20	0.052	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
367-12-4	2-Fluorophenol	42%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromopheuol	76%		15-110%
4165-60-0	Nitrobenzene-d5	71%		30-130%
321-60-8	2-Fluorobiphenyl	70%		30-130%
1718-51-0	Terphenyl-d14	89%		30-130%

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

Report of Analysis

Client Sample ID:	P66-ROX-041113-EB		
Lab Sample ID:	MC19817-2	Date Sampled:	04/11/13
Matrix:	AQ - Equipment Blank	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23709.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	80%		36-173%
460-00-4	Bromofluorobenzene (S)	85%		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:	MW14-ROX-041113		
Lab Sample ID:	MC19817-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60619.D	1	04/21/13	AMY	n/a	n/a	MSH2004
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	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	12.5	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	10	2.4	ug/l	
104-51-8	n-Butylbenzene	2.1	5.0	0.61	ng/l	J
135-98-8	sec-Butylbenzene	4.8	5.0	0.55	ug/l	J
98-06-6	tert-Butylbenzene	1.6	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	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	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:	MW14-ROX-041113		
Lab Sample ID:	MC19817-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	34.6	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	20.6	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	ng/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	1.4	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	3.8	1.0	0.73	ug/l	
95-47-6	o-Xylene	ND	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	4.3	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-041113		
Lab Sample ID:	MC19817-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	97%		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:	MW14-ROX-041113		
Lab Sample ID:	MC19817-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63192.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2							

	Initial Volume	Final Volume
Run #1	920 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	5.4	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.4	0.56	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.93	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.71	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.70	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.42	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	MW14-ROX-041113		
Lab Sample ID:	MC19817-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.4	0.48	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.88	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	92%		15-110%
4165-60-0	Nitrobenzene-d5	86%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%
1718-51-0	Terphenyl-d14	83%		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:	MW14-ROX-041113		
Lab Sample ID:	MC19817-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82742.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	0.68	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	0.098	0.11	0.014	ug/l	J
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	0.13	0.054	0.033	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	0.054	0.054	0.026	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.053	0.11	0.041	ng/l	J
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.064	ug/l	
218-01-9	Chrysene	ND	0.11	0.079	ng/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	0.068	0.11	0.035	ng/l	J
86-73-7	Flnorene	0.16	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.050	ug/l	
90-12-0	1-Methylnaphthalene	12.4	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	1.8	0.22	0.056	ug/l	
85-01-8	Phenanthrene	0.10	0.054	0.014	ug/l	
129-00-0	Pyrene	0.053	0.11	0.039	ug/l	J

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	73%		15-110%
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Flnorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	77%		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:	MW14-ROX-041113		
Lab Sample ID:	MC19817-3	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23710.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	34.3 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	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	110%		36-173%
460-00-4	Bromofluorobenzene (S)	127%		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-041113-HCL		
Lab Sample ID:	MC19817-4	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60613.D	1	04/21/13	AMY	n/a	n/a	MSH2004
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	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	10	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 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:	TB-ROX-041113-HCL		
Lab Sample ID:	MC19817-4	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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	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-041113-HCL		
Lab Sample ID:	MC19817-4	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	102%		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-ROX-041113-ST		
Lab Sample ID:	MC19817-5	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23711.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	95%		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:	P74-ROX-041113		
Lab Sample ID:	MC19817-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60650.D	1	04/22/13	KR	n/a	n/a	MSH2005
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	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	144	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	10	2.4	ug/l	
104-51-8	n-Butylhenzene	2.6	5.0	0.61	ug/l	J
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	Chloroethaue	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:	P74-ROX-041113		
Lab Sample ID:	MC19817-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-I	1,4-Dioxane	ND	25	15	ng/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	8.6	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	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	ug/l	
108-10-1	4-Methyl-2-pentanone (M1BK)	ND	5.0	2.9	ng/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	1.6	5.0	0.50	ug/l	J
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	3.0	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	ng/l	
95-63-6	1,2,4-Trimethylbenzene	18.4	5.0	0.35	ng/l	
108-67-8	1,3,5-Trimethylbenzene	13.8	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	45.6	1.0	0.73	ug/l	
95-47-6	o-Xylene	14.6	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	60.1	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:	P74-ROX-041113		
Lab Sample ID:	MC19817-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	98%		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:	P74-ROX-041113		
Lab Sample ID:	MC19817-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63193.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	~~4.6~~	5.2	0.53	ug/l	JB
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ng/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.67	ug/l	
121-14-2	2,4-Dinitrotolueue	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.66	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.2	0.40	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	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-041113		
Lab Sample ID:	MC19817-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

ABN Speeial 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	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	0.45	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.83	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		15-110%
4165-62-2	Phenol-d5	32%		15-110%
118-79-6	2,4,6-Tribromophenol	94%		15-110%
4165-60-0	Nitrobenzene-d5	90%		30-130%
321-60-8	2-Fluorobiphenyl	88%		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:	P74-ROX-041113		
Lab Sample ID:	MC19817-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82743.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	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	0.052	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	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	ND	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	43%		15-110%
4165-62-2	Phenol-d5	30%		15-110%
118-79-6	2,4,6-Tribromophenol	77%		15-110%
4165-60-0	Nitrobenzene-d5	76%		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
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:	P74-ROX-041113		
Lab Sample ID:	MC19817-6	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23712.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	82%		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

Report of Analysis

Client Sample ID:	P57-ROX-041113		
Lab Sample ID:	MC19817-7	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60632.D	500	04/21/13	AMY	n/a	n/a	MSH2004
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	5000	1500	ug/l	
107-02-8	Acrolein	ND	13000	5100	ug/l	UJ
107-13-1	Acrylonitrile	ND	2500	1600	ug/l	UJ
71-43-2	Benzene	141000	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	5000	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	UJ
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	Dichlorodifluoromethaue	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-041113		
Lab Sample ID:	MC19817-7	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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	1190	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	494	2500	170	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	2500	230	ug/l	
108-05-4	Vinyl Acetate	ND	2500	630	ng/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-041113		
Lab Sample ID:	MC19817-7	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	99%		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:	P57-ROX-041113		
Lab Sample ID:	MC19817-7	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63194.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	U13745.D	5	04/24/13	NS	04/16/13	OP32681	MSU698

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2	980 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	5.1	0.39	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	146 [a]	26	2.6	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.58	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.65	ug/l	
101-55-3	4-Bromopheuyl phenyl ether	ND	5.1	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.87	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.94	ug/l	
106-47-8	4-Chloroauiliue	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.20	ug/l	
122-66-7	1,2-Diphenylhydraziue	ND	5.1	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.69	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.65	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.51	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.40	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.44	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-041113		
Lab Sample ID:	MC19817-7	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.51	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.50	ng/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.1	0.45	ug/l	
78-59-1	Isophorone	ND	5.1	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.51	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.4	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.51	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.82	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.55	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	55%	44%	15-110%
4165-62-2	Phenol-d5	37%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	69%	15-110%
4165-60-0	Nitrobenzene-d5	88%	64%	30-130%
321-60-8	2-Fluorobiphenyl	78%	65%	30-130%
1718-51-0	Terphenyl-d14	74%	58%	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 valne
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P57-ROX-041113		
Lab Sample ID:	MC19817-7	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82744.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	0.63	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.12	0.10	0.014	ug/l	
120-12-7	Anthracene	0.073	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	ND	0.10	0.033	ug/l	
86-73-7	Fluorene	0.76	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	34.8	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	45.3	0.20	0.053	ug/l	
85-01-8	Phenanthrene	0.74	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	49%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	79%		15-110%
4165-60-0	Nitrohenzene-d5	69%		30-130%
321-60-8	2-Fluorobiphenyl	69%		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:	P57-ROX-041113		
Lab Sample ID:	MC19817-7	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23713.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	118%		36-173%
460-00-4	Bromofluorobenzene (S)	147%		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:	P58-ROX-041113		
Lab Sample ID:	MC19817-8	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60633.D	2000	04/21/13	AMY	n/a	n/a	MSH2004
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	6000	ug/l	
107-02-8	Acrolein	ND	50000	20000	ug/l	UJ
107-13-1	Acrylonitrile	ND	10000	6500	ug/l	UJ
71-43-2	Benzene	532000	1000	480	ug/l	
108-86-1	Bromobenzene	ND	10000	1200	ug/l	
74-97-5	Bromochloromethane	ND	10000	2500	ug/l	
75-27-4	Bromodichloromethane	ND	2000	1200	ug/l	
75-25-2	Bromoform	ND	2000	1600	ug/l	
74-83-9	Bromomethane	ND	4000	2000	ug/l	
78-93-3	2-Butanone (MEK)	ND	20000	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	ug/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	ng/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:	P58-ROX-041113		
Lab Sample ID:	MC19817-8	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	1280	2000	1000	ug/l	J
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	ND	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	926	10000	690	ug/l	J
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 evideuce of a compound

Report of Analysis

Client Sample ID:	P58-ROX-041113		
Lab Sample ID:	MC19817-8	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	98%		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:	P58-ROX-041113		
Lab Sample ID:	MC19817-8	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63195.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
Run #2	U13746.D	5	04/24/13	NS	04/16/13	OP32681	MSU698

	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	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	14.0	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ng/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	98.5 [a]	27	2.8	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.93	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.71	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.70	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.4	0.54	ug/l	UJ
132-64-9	Dibenzofuran	4.4	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.42	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	P58-ROX-041113		
Lab Sample ID:	MC19817-8	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ug/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.4	0.48	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.88	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.56	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%	20%	15-110%
4165-62-2	Phenol-d5	31%	15%	15-110%
118-79-6	2,4,6-Tribromophenol	96%	42%	15-110%
4165-60-0	Nitrobenzene-d5	93%	49%	30-130%
321-60-8	2-Fluorobiphenyl	80%	39%	30-130%
1718-51-0	Terphenyl-d14	65%	32%	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-041113		
Lab Sample ID:	MC19817-8	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Bateh
Run #1	I82745.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
Run #2	I82830.D	10	04/25/13	NS	04/16/13	OP32682	MSI3078

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

BN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	1.5	0.11	0.015	ng/l	
208-96-8	Acenaphthylene	0.50	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	0.30	0.054	0.033	ug/l	
50-32-8	Benzo(a)pyrene	0.19	0.11	0.019	ug/l	
205-99-2	Benzo(b)fluoranthene	0.095	0.054	0.026	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.074	0.11	0.041	ug/l	J
207-08-9	Benzo(k)fluoranthene	ND	0.11	0.064	ug/l	
218-01-9	Chrysene	0.32	0.11	0.079	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.11	0.045	ug/l	
206-44-0	Fluoranthene	0.19	0.11	0.035	ug/l	
86-73-7	Fluorene	2.2	0.11	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.11	0.050	ug/l	
90-12-0	1-Methylnaphthalene	69.2	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	96.1 [a]	2.2	0.56	ug/l	
85-01-8	Phenanthrene	2.1	0.054	0.014	ug/l	
129-00-0	Pyrene	0.55	0.11	0.039	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	37%	36%	15-110%
4165-62-2	Phenol-d5	28%	25%	15-110%
118-79-6	2,4,6-Tribromophenol	78%	72%	15-110%
4165-60-0	Nitrobenzene-d5	77%	79%	30-130%
321-60-8	2-Fluorobiphenyl	68%	69%	30-130%
1718-51-0	Terphenyl-d14	63%	61%	30-130%

(a) Result is from Run# 2

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

Report of Analysis

Client Sample ID:	P58-ROX-041113		
Lab Sample ID:	MC19817-8	Date Sampled:	04/11/13
Matrix:	AQ - Ground Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23715.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	128%		36-173%
460-00-4	Bromofluorobenzene (S)	128%		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-041113-HCL-A		
Lab Sample ID:	MC19817-9	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60614.D	1	04/21/13	AMY	n/a	n/a	MSH2004
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	3.0	ug/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	ng/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	10	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-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	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	ng/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	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	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-041113-HCL-A		
Lab Sample ID:	MC19817-9	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-041113-HCL-A		
Lab Sample ID:	MC19817-9	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	103%		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	

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:	TB-ROX-041113-ST-A		
Lab Sample ID:	MC19817-10	Date Sampled:	04/11/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/12/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23716.D	1	04/19/13	NK	04/17/13	OP32696	GBK833
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)	92%		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

New England ACCUTEST LABORATORIES

Misc. Forms

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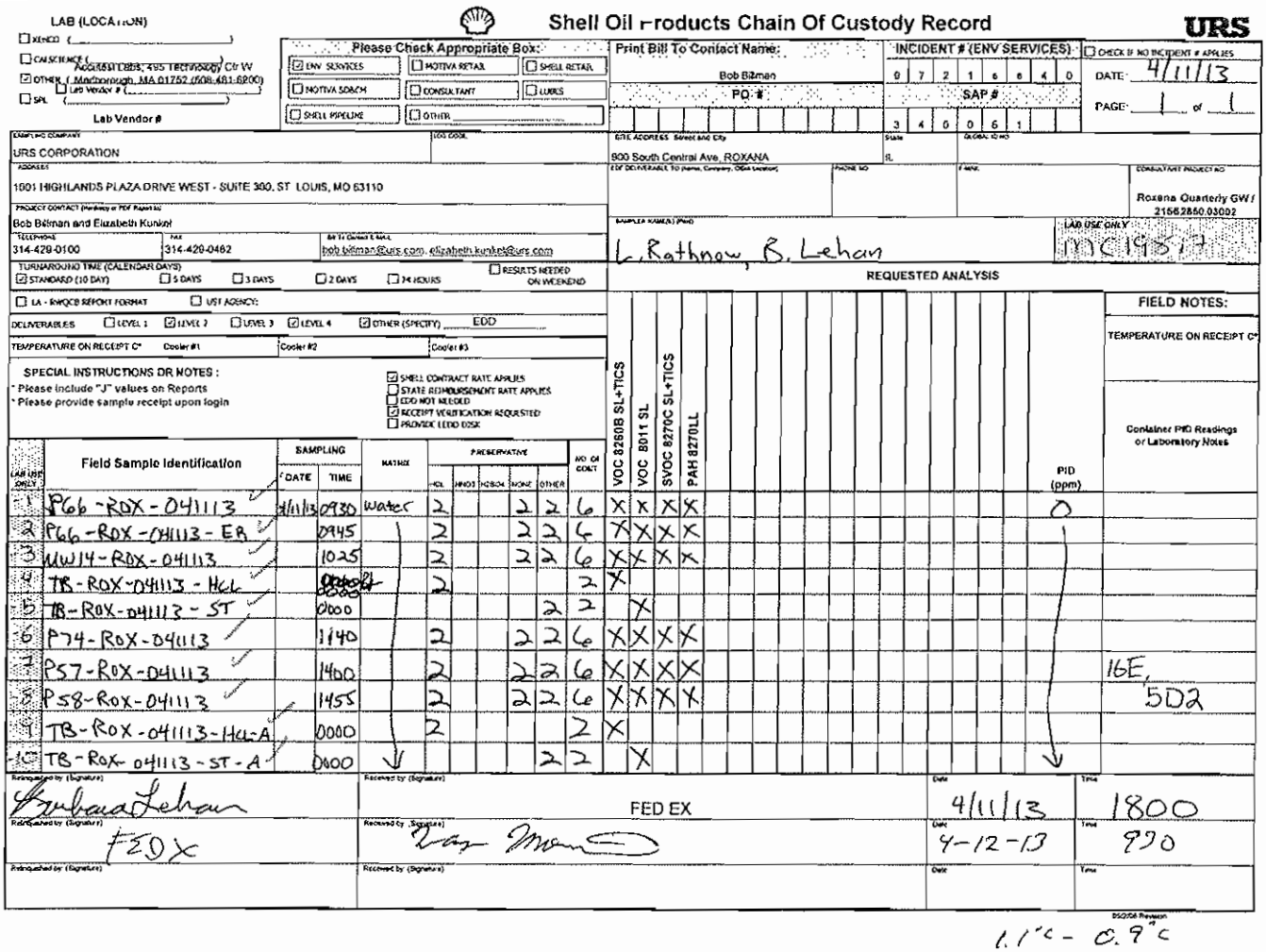
Custody Documents and Other Forms

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))
☐ Lab Vendor # (_____)
☐ SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOBOH ☐ CONSULTANT ☐ URS
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Bilman
PO #:
INCIDENT # (ENV SERVICES): 0 7 2 1 6 8 4 0
SAP #: 3 4 0 0 6 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/11/13
PAGE: 1 of 1

COMPANY: URS CORPORATION
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST LOUIS, MO 63110
PROJECT CONTACT: Bob Bilman and Elizabeth Kunkel
TELEPHONE: 314-429-0100 FAX: 314-429-0462 E-MAIL: bob.bilman@urs.com, elizabeth.kunkel@urs.com
SITE ADDRESS: 900 South Central Ave, ROXANA
STATE: IL
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21582850.03002
SAMPLER NAME(S): L. Rathnow, B. Lehan
LAB USE ONLY: MC19817

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	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	P66-ROX-041113	4/11/13	0930	Water	2			2	2	6	X	X	X	X	0	
2	P66-ROX-041113-EB		0945		2			2	2	6	X	X	X	X		
3	MW14-ROX-041113		1025		2			2	2	6	X	X	X	X		
4	TB-ROX-041113-HCL		[illegible]		2					2	X					
5	TB-ROX-041113-ST		0000						2	2		X				
6	P74-ROX-041113		1140		2			2	2	6	X	X	X	X		
7	P57-ROX-041113		1400		2			2	2	6	X	X	X	X		16E, 5D2
8	P58-ROX-041113		1455		2			2	2	6	X	X	X	X		
9	TB-ROX-041113-HCL-A		0000		2					2	X					
10	TB-ROX-041113-ST-A		0000						2	2		X				

Relinquished by (Signature)	Received by (Signature)	Date	Time
Barbara Lehan	FED EX	4/11/13	1800
FEDX	[signature]	4-12-13	930

1.1°C - 0.9°C

DS058 Revision

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MC19817: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19817 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/12/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: 900 SOUTH CENTRAL **No. Coolers:** 2 **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	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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MC19817: Chain of Custody
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Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19817

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19817-1 Collected: 11-APR-13 09:30 By: LRBL Received: 12-APR-13 By: P66-ROX-041113						
MC19817-1	SW846 8011	19-APR-13 05:31	NK	17-APR-13	BJ	V8011SL
MC19817-1	SW846 8270C	19-APR-13 16:29	KR	16-APR-13	PA	AB8270SL+
MC19817-1	SW846 8270C BY SIM	19-APR-13 17:15	NS	16-APR-13	PA	B8270SIMSL
MC19817-1	SW846 8260B	21-APR-13 13:53	AMY			V8260SL+
MC19817-1	SW846 8260B	22-APR-13 15:28	KR			V8260SL+
MC19817-2 Collected: 11-APR-13 09:45 By: LRBL Received: 12-APR-13 By: P66-ROX-041113-EB						
MC19817-2	SW846 8011	19-APR-13 05:56	NK	17-APR-13	BJ	V8011SL
MC19817-2	SW846 8270C	19-APR-13 16:53	KR	16-APR-13	PA	AB8270SL+
MC19817-2	SW846 8270C BY SIM	19-APR-13 17:38	NS	16-APR-13	PA	B8270SIMSL
MC19817-2	SW846 8260B	21-APR-13 12:04	AMY			V8260SL+
MC19817-3 Collected: 11-APR-13 10:25 By: LRBL Received: 12-APR-13 By: MW14-ROX-041113						
MC19817-3	SW846 8011	19-APR-13 06:19	NK	17-APR-13	BJ	V8011SL
MC19817-3	SW846 8270C	19-APR-13 17:17	KR	16-APR-13	PA	AB8270SL+
MC19817-3	SW846 8270C BY SIM	19-APR-13 18:01	NS	16-APR-13	PA	B8270SIMSL
MC19817-3	SW846 8260B	21-APR-13 13:26	AMY			V8260SL+
MC19817-4 Collected: 11-APR-13 00:00 By: LRBL Received: 12-APR-13 By: TB-ROX-041113-HCL						
MC19817-4	SW846 8260B	21-APR-13 10:42	AMY			V8260SL+
MC19817-5 Collected: 11-APR-13 00:00 By: LRBL Received: 12-APR-13 By: TB-ROX-041113-ST						
MC19817-5	SW846 8011	19-APR-13 06:43	NK	17-APR-13	BJ	V8011SL
MC19817-6 Collected: 11-APR-13 11:40 By: LRBL Received: 12-APR-13 By: P74-ROX-041113						
MC19817-6	SW846 8011	19-APR-13 07:06	NK	17-APR-13	BJ	V8011SL
MC19817-6	SW846 8270C	19-APR-13 17:41	KR	16-APR-13	PA	AB8270SL+

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19817

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19817-6	SW846 8270C BY SIM	19-APR-13 18:24	NS	16-APR-13	PA	B8270SIMSL
MC19817-6	SW846 8260B	22-APR-13 14:32	KR			V8260SL+
MC19817-7	Collected: 11-APR-13 14:00 By: LRBL			Received: 12-APR-13 By:		
P57-ROX-041113						
MC19817-7	SW846 8011	19-APR-13 07:30	NK	17-APR-13	BJ	V8011SL
MC19817-7	SW846 8270C	19-APR-13 18:05	KR	16-APR-13	PA	AB8270SL+
MC19817-7	SW846 8270C BY SIM	19-APR-13 18:48	NS	16-APR-13	PA	B8270SIMSL
MC19817-7	SW846 8260B	21-APR-13 19:24	AMY			V8260SL+
MC19817-7	SW846 8270C	24-APR-13 13:19	NS	16-APR-13	PA	AB8270SL+
MC19817-8	Collected: 11-APR-13 14:55 By: LRBL			Received: 12-APR-13 By:		
P58-ROX-041113						
MC19817-8	SW846 8011	19-APR-13 08:18	NK	17-APR-13	BJ	V8011SL
MC19817-8	SW846 8270C	19-APR-13 18:29	KR	16-APR-13	PA	AB8270SL+
MC19817-8	SW846 8270C BY SIM	19-APR-13 19:11	NS	16-APR-13	PA	B8270SIMSL
MC19817-8	SW846 8260B	21-APR-13 19:51	AMY			V8260SL+
MC19817-8	SW846 8270C	24-APR-13 13:41	NS	16-APR-13	PA	AB8270SL+
MC19817-8	SW846 8270C BY SIM	25-APR-13 09:40	NS	16-APR-13	PA	B8270SIMSL
MC19817-9	Collected: 11-APR-13 00:00 By: LRBL			Received: 12-APR-13 By:		
TB-ROX-041113-HCL-A						
MC19817-9	SW846 8260B	21-APR-13 11:09	AMY			V8260SL+
MC19817-10	Collected: 11-APR-13 00:00 By: LRBL			Received: 12-APR-13 By:		
TB-ROX-041113-ST-A						
MC19817-10	SW846 8011	19-APR-13 08:42	NK	17-APR-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19817-1.1	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19817-1.1	Michael Rolo		04/17/13 07:24	Depleted
MC19817-1.3	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-1.3	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19817-1.3	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19817-1.3	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19817-1.4	VOC Ref #5	Gary Krasinski	04/22/13 14:02	Retrieve from Storage
MC19817-1.4	Gary Krasinski	GCMSH	04/22/13 14:02	Load on Instrument
MC19817-1.4	GCMSH	Gary Krasinski	04/23/13 09:22	Unload from Instrument
MC19817-1.4	Gary Krasinski	VOC Ref #5	04/25/13 10:05	Return to Storage
MC19817-1.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19817-1.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19817-2.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19817-2.2	Michael Rolo		04/17/13 07:24	Depleted
MC19817-2.4	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-2.4	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19817-2.4	GCMSH	Kerry Ryan	04/22/13 08:55	Unload from Instrument
MC19817-2.4	Kerry Ryan	VOC Ref #5	04/22/13 11:17	Return to Storage
MC19817-2.6	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19817-2.6	Bijan Jafari		04/20/13 08:36	Depleted
MC19817-3.1	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19817-3.1	Michael Rolo		04/17/13 07:24	Depleted
MC19817-3.3	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-3.3	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19817-3.3	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19817-3.3	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19817-3.4	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19817-3.4	Bijan Jafari		04/20/13 08:36	Depleted
MC19817-4.2	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-4.2	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19817-4.2	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19817-4.2	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19817-5.1	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage

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Accutest Internal Chain of Custody

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19817-5.1	Bijan Jafari		04/20/13 08:36	Depleted
MC19817-6.1	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19817-6.1	Michael Rolo		04/17/13 07:24	Depleted
MC19817-6.3	VOC Ref #5	Gary Krasinski	04/22/13 14:02	Retrieve from Storage
MC19817-6.3	Gary Krasinski	GCMSH	04/22/13 14:02	Load on Instrument
MC19817-6.3	GCMSH	Gary Krasinski	04/23/13 09:22	Unload from Instrument
MC19817-6.3	Gary Krasinski	VOC Ref #5	04/25/13 10:05	Return to Storage
MC19817-6.4	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-6.4	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19817-6.4	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19817-6.4	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19817-6.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19817-6.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19817-7.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19817-7.2	Michael Rolo		04/17/13 07:24	Depleted
MC19817-7.3	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-7.3	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrnment
MC19817-7.3	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19817-7.3	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Return to Storage
MC19817-7.4	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19817-7.4	Bijan Jafari		04/20/13 08:36	Depleted
MC19817-8.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19817-8.2	Michael Rolo		04/17/13 07:24	Depleted
MC19817-8.3	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-8.3	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19817-8.3	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Iustrument
MC19817-8.3	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Returu to Storage
MC19817-8.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19817-8.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19817-9.1	VOC Ref #5	Amy Min Yang	04/21/13 09:09	Retrieve from Storage
MC19817-9.1	Amy Min Yang	GCMSH	04/21/13 09:10	Load on Instrument
MC19817-9.1	GCMSH	Kerry Ryan	04/22/13 08:58	Unload from Instrument
MC19817-9.1	Kerry Ryan	VOC Ref #5	04/22/13 08:58	Retnrn to Storage

Accutest Internal Chain of Custody

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/12/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19817-10.1	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19817-10.1	Bijan Jafari		04/20/13 08:36	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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-MB	H60611.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applics to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	10	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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-MB	H60611.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropeue	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	Naphthaleue	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	ng/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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-MB	H60611.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Surrogate Recoverics		Limits
1868-53-7	Dibromofluoromethane	90%	70-130%
2037-26-5	Toluene-D8	102%	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	

6.1.1

Method Blank Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	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	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	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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

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	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-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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-MB	H60642.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethaue	89%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	113%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cone.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-BS	H60609.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	80.9	162* a	70-130
107-02-8	Acrolein	250	129	52* a	70-130
107-13-1	Acrylonitrile	50	34.6	69* a	70-130
71-43-2	Benzene	50	49.4	99	70-130
108-86-1	Bromobenzene	50	54.6	109	70-130
74-97-5	Bromochloromethane	50	47.2	94	70-130
75-27-4	Bromodichloromethane	50	56.9	114	70-130
75-25-2	Bromoform	50	57.1	114	70-130
74-83-9	Bromomethane	50	48.7	97	70-130
78-93-3	2-Butanone (MEK)	50	57.3	115	70-130
104-51-8	n-Butylbenzene	50	55.7	111	70-130
135-98-8	sec-Butylbenzene	50	53.4	107	70-130
98-06-6	tert-Butylbenzene	50	54.3	109	70-130
75-15-0	Carbon disulfide	50	43.0	86	70-130
56-23-5	Carbon tetrachloride	50	60.7	121	70-130
108-90-7	Chlorobenzene	50	50.5	101	70-130
75-00-3	Chloroethane	50	48.2	96	70-130
110-75-8	2-Chloroethyl vinyl ether	50	29.2	58* a	70-130
67-66-3	Chloroform	50	49.6	99	70-130
74-87-3	Chloromethane	50	51.2	102	70-130
95-49-8	o-Chlorotoluene	50	50.1	100	70-130
106-43-4	p-Chlorotoluene	50	53.0	106	70-130
124-48-1	Dibromochloromethane	50	55.1	110	70-130
95-50-1	1,2-Dichlorobenzene	50	52.7	105	70-130
541-73-1	1,3-Dichlorobenzene	50	54.1	108	70-130
106-46-7	1,4-Dichlorobenzene	50	53.2	106	70-130
75-71-8	Dichlorodifluoromethane	50	57.8	116	70-130
75-34-3	1,1-Dichloroethane	50	44.4	89	70-130
107-06-2	1,2-Dichloroethane	50	52.8	106	70-130
75-35-4	1,1-Dichloroethene	50	47.4	95	70-130
156-59-2	cis-1,2-Dichloroethene	50	45.0	90	70-130
156-60-5	trans-1,2-Dichloroethene	50	44.1	88	70-130
78-87-5	1,2-Dichloropropane	50	45.4	91	70-130
142-28-9	1,3-Dichloropropane	50	50.8	102	70-130
594-20-7	2,2-Dichloropropane	50	58.3	117	70-130
563-58-6	1,1-Dichloropropene	50	50.2	100	70-130

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-BS	H60609.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	46.2	92	70-130
10061-02-6	trans-1,3-Dichloropropene	50	49.7	99	70-130
123-91-1	1,4-Dioxane	250	201	80	70-130
97-63-2	Ethyl methacrylate	50	43.0	86	77-137
100-41-4	Ethylbenzene	50	57.2	114	70-130
87-68-3	Hexachlorobutadiene	50	58.0	116	70-130
591-78-6	2-Hexanone	50	65.6	131* a	70-130
98-82-8	Isopropylbenzene	50	53.4	107	70-130
99-87-6	p-Isopropyltoluene	50	59.0	118	70-130
1634-04-4	Methyl Tert Butyl Ether	50	45.0	90	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	42.9	86	70-130
74-95-3	Methylene bromide	50	51.0	102	70-130
75-09-2	Methylene chloride	50	44.5	89	70-130
91-20-3	Naphthalene	50	45.3	91	70-130
103-65-1	n-Propylbenzene	50	51.2	102	70-130
100-42-5	Styrene	50	56.8	114	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	62.3	125	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	53.6	107	70-130
127-18-4	Tetrachloroethene	50	57.2	114	70-130
108-88-3	Toluene	50	49.7	99	70-130
87-61-6	1,2,3-Trichlorobenzene	50	51.1	102	70-130
120-82-1	1,2,4-Trichlorobenzene	50	52.8	106	70-130
71-55-6	1,1,1-Trichloroethane	50	53.2	106	70-130
79-00-5	1,1,2-Trichloroethane	50	48.3	97	70-130
79-01-6	Trichloroethene	50	50.1	100	70-130
75-69-4	Trichlorofluoromethane	50	53.2	106	70-130
96-18-4	1,2,3-Trichloropropane	50	51.4	103	70-130
95-63-6	1,2,4-Trimethylbenzene	50	55.5	111	70-130
108-67-8	1,3,5-Trimethylbenzene	50	55.9	112	70-130
108-05-4	Vinyl Acetate	50	49.5	99	70-130
75-01-4	Vinyl chloride	50	44.3	89	70-130
	m,p-Xylene	100	114	114	70-130
95-47-6	o-Xylene	50	55.9	112	70-130
1330-20-7	Xylene (total)	150	170	113	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2004-BS	H60609.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	106%	70-130%

(a) Outside control limits. Blank Spike meets program technical reqnirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxaua, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	79.1	158* a	70-130
107-02-8	Acrolein	250	119	48* a	70-130
107-13-1	Acrylonitrile	50	30.9	62* a	70-130
71-43-2	Benzene	50	50.1	100	70-130
108-86-1	Bromobenzene	50	57.6	115	70-130
74-97-5	Bromochloromethane	50	49.5	99	70-130
75-27-4	Bromodichloromethane	50	61.1	122	70-130
75-25-2	Bromoform	50	60.8	122	70-130
74-83-9	Bromomethane	50	50.9	102	70-130
78-93-3	2-Butanone (MEK)	50	56.6	113	70-130
104-51-8	n-Butylbenzene	50	58.6	117	70-130
135-98-8	sec-Butylbenzene	50	55.3	111	70-130
98-06-6	tert-Butylbenzene	50	56.7	113	70-130
75-15-0	Carbon disulfide	50	43.5	87	70-130
56-23-5	Carbon tetrachloride	50	67.0	134* a	70-130
108-90-7	Chlorobenzene	50	53.0	106	70-130
75-00-3	Chloroethane	50	48.1	96	70-130
110-75-8	2-Chloroethyl vinyl ether	50	33.8	68* a	70-130
67-66-3	Chloroform	50	50.7	101	70-130
74-87-3	Chloromethane	50	52.9	106	70-130
95-49-8	o-Chlorotoluene	50	52.4	105	70-130
106-43-4	p-Chlorotoluene	50	54.2	108	70-130
124-48-1	Dibromochloromethane	50	59.5	119	70-130
95-50-1	1,2-Dichlorobenzene	50	55.7	111	70-130
541-73-1	1,3-Dichlorobenzene	50	56.4	113	70-130
106-46-7	1,4-Dichlorobenzene	50	55.0	110	70-130
75-71-8	Dichlorodifluoromethane	50	60.4	121	70-130
75-34-3	1,1-Dichloroethane	50	45.1	90	70-130
107-06-2	1,2-Dichloroethane	50	56.8	114	70-130
75-35-4	1,1-Dichloroethene	50	48.8	98	70-130
156-59-2	cis-1,2-Dichloroethene	50	46.4	93	70-130
156-60-5	trans-1,2-Dichloroethene	50	45.2	90	70-130
78-87-5	1,2-Dichloropropane	50	46.6	93	70-130
142-28-9	1,3-Dichloropropane	50	53.1	106	70-130
594-20-7	2,2-Dichloropropane	50	60.4	121	70-130
563-58-6	1,1-Dichloropropene	50	53.7	107	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	47.7	95	70-130
10061-02-6	trans-1,3-Dichloropropene	50	53.0	106	70-130
123-91-1	1,4-Dioxane	250	221	88	70-130
97-63-2	Ethyl methacrylate	50	45.4	91	77-137
100-41-4	Ethylbenzene	50	58.6	117	70-130
87-68-3	Hexachlorobutadiene	50	64.4	129	70-130
591-78-6	2-Hexanone	50	64.2	128	70-130
98-82-8	Isopropylbenzene	50	55.8	112	70-130
99-87-6	p-Isopropyltoluene	50	60.8	122	70-130
1634-04-4	Methyl Tert Butyl Ether	50	47.4	95	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	42.5	85	70-130
74-95-3	Methylene bromide	50	55.2	110	70-130
75-09-2	Methylene chloride	50	44.9	90	70-130
91-20-3	Naphthalene	50	48.9	98	70-130
103-65-1	n-Propylbenzene	50	53.5	107	70-130
100-42-5	Styrene	50	59.2	118	70-130
630-20-6	1,1,1,2-Tetrachloroethane	50	67.3	135* a	70-130
79-34-5	1,1,2,2-Tetrachloroethane	50	55.0	110	70-130
127-18-4	Tetrachloroethene	50	60.2	120	70-130
108-88-3	Tolnene	50	51.5	103	70-130
87-61-6	1,2,3-Trichlorobenzene	50	55.8	112	70-130
120-82-1	1,2,4-Trichlorohenzene	50	57.0	114	70-130
71-55-6	1,1,1-Trichloroethane	50	56.7	113	70-130
79-00-5	1,1,2-Trichloroethane	50	50.7	101	70-130
79-01-6	Trichloroethene	50	52.4	105	70-130
75-69-4	Trichlorofluoromethane	50	56.5	113	70-130
96-18-4	1,2,3-Trichloropropane	50	53.3	107	70-130
95-63-6	1,2,4-Trimethylbenzene	50	57.7	115	70-130
108-67-8	1,3,5-Trimethylbenzene	50	58.2	116	70-130
108-05-4	Vinyl Acetate	50	49.9	100	70-130
75-01-4	Vinyl chloride	50	45.1	90	70-130
	m,p-Xylene	100	117	117	70-130
95-47-6	o-Xylene	50	58.4	117	70-130
1330-20-7	Xylene (total)	150	176	117	70-130

* = Outside of Control Limits.

6.2.2

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH2005-BS	H60639.D	1	04/22/13	KR	n/a	n/a	MSH2005

6.2.2

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	94%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19900-13MS	H60622.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13MSD	H60623.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13	H60617.D	1	04/21/13	AMY	n/a	n/a	MSH2004

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Compound	MC19900-13 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	186	74	178	71	4	70-130/30
107-02-8	Acrolein	ND		1250	692	55* [a]	684	55* [a]	1	70-130/30
107-13-1	Acrylonitrile	ND		250	185	74	187	75	1	70-130/30
71-43-2	Benzene	ND		250	271	108	273	109	1	70-130/30
108-86-1	Bromobenzene	ND		250	306	122	307	123	0	70-130/30
74-97-5	Bromochloromethane	ND		250	265	106	263	105	1	70-130/30
75-27-4	Bromodichloromethane	ND		250	290	116	286	114	1	70-130/30
75-25-2	Bromoform	ND		250	297	119	295	118	1	70-130/30
74-83-9	Bromomethane	ND		250	258	103	254	102	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	218	87	216	86	1	70-130/30
104-51-8	n-Butylbenzene	ND		250	299	120	287	115	4	70-130/30
135-98-8	sec-Butylbenzene	ND		250	293	117	285	114	3	70-130/30
98-06-6	tert-Butylbenzene	ND		250	294	118	287	115	2	70-130/30
75-15-0	Carbon disulfide	ND		250	220	88	222	89	1	70-130/30
56-23-5	Carbon tetrachloride	ND		250	313	125	311	124	1	70-130/30
108-90-7	Chlorobenzene	ND		250	296	118	286	114	3	70-130/30
75-00-3	Chloroethane	ND		250	252	101	245	98	3	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	7.0	3* [a]	6.4	3* [a]	9	70-130/30
67-66-3	Chloroform	ND		250	263	105	252	101	4	70-130/30
74-87-3	Chloromethane	ND		250	275	110	265	106	4	70-130/30
95-49-8	o-Chlorotoluene	ND		250	274	110	272	109	1	70-130/30
106-43-4	p-Chlorotolnene	ND		250	286	114	277	111	3	70-130/30
124-48-1	Dibromochloromethane	ND		250	296	118	293	117	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	287	115	280	112	2	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	293	117	288	115	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	290	116	283	113	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	265	106	247	99	7	70-130/30
75-34-3	1,1-Dichloroethane	3.8		250	244	96	238	94	2	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	259	104	260	104	0	70-130/30
75-35-4	1,1-Dichloroethene	0.48	J	250	267	107	261	104	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	33.1		250	283	100	280	99	1	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	250	100	246	98	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	249	100	248	99	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	294	118	285	114	3	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	290	116	279	112	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	280	112	272	109	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19900-13MS	H60622.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13MSD	H60623.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13	H60617.D	1	04/21/13	AMY	n/a	n/a	MSH2004

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MC19817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Compound	MC19900-13 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	240	96	238	95	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	252	101	248	99	2	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1190	95	1250	100	5	70-130/30
97-63-2	Ethyl methacrylate	ND		250	235	94	237	95	1	72-139/30
100-41-4	Ethylbenzene	ND		250	328	131* [a]	313	125	5	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	306	122	304	122	1	70-130/30
591-78-6	2-Hexanone	ND		250	244	98	245	98	0	70-130/30
98-82-8	Isopropylbenzene	ND		250	302	121	290	116	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	319	128	311	124	3	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	240	96	241	96	0	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	218	87	220	88	1	70-130/30
74-95-3	Methylene bromide	ND		250	273	109	274	110	0	70-130/30
75-09-2	Methylene chloride	ND		250	241	96	236	94	2	70-130/30
91-20-3	Naphthalene	ND		250	243	97	249	100	2	70-130/30
103-65-1	n-Propylbenzene	ND		250	286	114	277	111	3	70-130/30
100-42-5	Styrene	ND		250	326	130	316	126	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	344	138* [a]	343	137* [a]	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	300	120	300	120	0	70-130/30
127-18-4	Tetrachloroethene	0.47	J	250	336	134* [a]	320	128	5	70-130/30
108-88-3	Toluene	ND		250	278	111	271	108	3	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	264	106	271	108	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	276	110	277	111	0	70-130/30
71-55-6	1,1,1-Trichloroethane	10.3		250	293	113	280	108	5	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	261	104	251	100	4	70-130/30
79-01-6	Trichloroethene	2.1		250	275	109	268	106	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	242	97	231	92	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	264	106	265	106	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	303	121	296	118	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	305	122	300	120	2	70-130/30
108-05-4	Vinyl Acetate	ND		250	280	112	276	110	1	70-130/30
75-01-4	Vinyl chloride	ND		250	216	86	212	85	2	70-130/30
	m,p-Xylene	ND		500	655	131* [a]	637	127	3	70-130/30
95-47-6	o-Xylene	ND		250	319	128	311	124	3	70-130/30
1330-20-7	Xylene (total)	ND		750	974	130	948	126	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19900-13MS	H60622.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13MSD	H60623.D	5	04/21/13	AMY	n/a	n/a	MSH2004
MC19900-13	H60617.D	1	04/21/13	AMY	n/a	n/a	MSH2004

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-2, MC19817-3, MCI9817-4, MC19817-7, MC19817-8, MC19817-9

CAS No.	Surrogate Recoveries	MS	MSD	MCI9900-13	Limits
1868-53-7	Dibromofluoromethane	93%	92%	93%	70-130%
2037-26-5	Toluene-D8	99%	99%	102%	70-130%
460-00-4	4-Bromofluorobenzene	I06%	105%	111%	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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Compound	MC19922-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		250	191	76	176	70	8	70-130/30
107-02-8	Acrolein	ND		1250	581	46* [a]	531	42* [a]	9	70-130/30
107-13-1	Acrylonitrile	ND		250	161	64* [a]	145	58* [a]	10	70-130/30
71-43-2	Benzene	ND		250	249	100	228	91	9	70-130/30
108-86-1	Bromobenzene	ND		250	279	112	261	104	7	70-130/30
74-97-5	Bromochloromethane	ND		250	243	97	228	91	6	70-130/30
75-27-4	Bromodichloromethane	ND		250	303	121	270	108	12	70-130/30
75-25-2	Bromoform	ND		250	299	120	269	108	11	70-130/30
74-83-9	Bromomethane	ND		250	250	100	234	94	7	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	192	77	178	71	8	70-130/30
104-51-8	n-Butylbenzene	ND		250	268	107	247	99	8	70-130/30
135-98-8	sec-Butylbenzene	ND		250	258	103	240	96	7	70-130/30
98-06-6	tert-Butylbenzene	ND		250	269	108	251	100	7	70-130/30
75-15-0	Carbon disulfide	ND		250	193	77	167	67* [a]	14	70-130/30
56-23-5	Carbon tetrachloride	ND		250	323	129	286	114	12	70-130/30
108-90-7	Chlorobenzene	ND		250	261	104	242	97	8	70-130/30
75-00-3	Chloroethane	ND		250	224	90	211	84	6	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	1.1		250	253	101	230	92	10	70-130/30
74-87-3	Chloromethane	ND		250	245	98	229	92	7	70-130/30
95-49-8	o-Chlorotoluene	ND		250	251	100	231	92	8	70-130/30
106-43-4	p-Chlorotoluene	ND		250	261	104	243	97	7	70-130/30
124-48-1	Dibromochloromethane	ND		250	290	116	268	107	8	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	266	106	246	98	8	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	272	109	250	100	8	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	270	108	254	102	6	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	278	111	255	102	9	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	221	88	199	80	10	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	283	113	255	102	10	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	232	93	210	84	10	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	228	91	209	84	9	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	221	88	204	82	8	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	229	92	208	83	10	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	265	106	249	100	6	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	288	115	266	106	8	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	257	103	240	96	7	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

6.3.2

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Compound	MC19922-1 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	237	95	211	84	12	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	260	104	233	93	11	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1010	81	976	78	3	70-130/30
97-63-2	Ethyl methacrylate	ND		250	227	91	202	81	12	72-139/30
100-41-4	Ethylbenzene	ND		250	290	116	268	107	8	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	290	116	265	106	9	70-130/30
591-78-6	2-Hexanone	ND		250	219	88	205	82	7	70-130/30
98-82-8	Isopropylbenzene	ND		250	266	106	247	99	7	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	290	116	270	108	7	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		250	232	93	209	84	10	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	206	82	188	75	9	70-130/30
74-95-3	Methylene bromide	ND		250	274	110	249	100	10	70-130/30
75-09-2	Methylene chloride	ND		250	215	86	200	80	7	70-130/30
91-20-3	Naphthalene	ND		250	226	90	213	85	6	70-130/30
103-65-1	n-Propylbenzene	ND		250	252	101	235	94	7	70-130/30
100-42-5	Styrene	ND		250	291	116	264	106	10	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	329	132* [a]	300	120	9	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	280	112	254	102	10	70-130/30
127-18-4	Tetrachloroethene	ND		250	295	118	274	110	7	70-130/30
108-88-3	Toluene	ND		250	256	102	235	94	9	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	250	100	237	95	5	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	258	103	239	96	8	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	278	111	250	100	11	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	255	102	224	90	13	70-130/30
79-01-6	Trichloroethene	ND		250	255	102	231	92	10	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	266	106	238	95	11	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	255	102	236	94	8	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	277	111	257	103	7	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	277	111	258	103	7	70-130/30
108-05-4	Vinyl Acetate	ND		250	255	102	234	94	9	70-130/30
75-01-4	Vinyl chloride	ND		250	211	84	198	79	6	70-130/30
	m,p-Xylene	ND		500	584	117	535	107	9	70-130/30
95-47-6	o-Xylene	ND		250	289	116	267	107	8	70-130/30
1330-20-7	Xylene (total)	ND		750	873	116	802	107	8	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19922-1MS	H60656.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1MSD	H60657.D	5	04/22/13	KR	n/a	n/a	MSH2005
MC19922-1	H60658.D	1	04/22/13	KR	n/a	n/a	MSH2005

The QC reported here applies to the following samples: Method: SW846 8260B

MC19817-1, MC19817-6

CAS No.	Surrogate Recoveries	MS	MSD	MC19922-1	Limits
1868-53-7	Dibromofluoromethane	93%	96%	89%	70-130%
2037-26-5	Toluene-D8	102%	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	105%	105%	111%	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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2004-CC1993	Injection Date:	04/21/13
Lab File ID:	H60608.D	Injection Time:	08:24
Instrument ID:	GCMSH	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	154965	8.70	218326	9.57	99937	12.83	129958	15.39	29574	6.28
Upper Limit [a]	309930	9.20	436652	10.07	199874	13.33	259916	15.89	59148	6.78
Lower Limit [b]	77483	8.20	109163	9.07	49969	12.33	64979	14.89	14787	5.78
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2004-BS	163020	8.70	229494	9.57	104143	12.83	133312	15.39	33441	6.27
MSH2004-MB	145550	8.70	197728	9.57	84013	12.83	101252	15.40	29106	6.28
ZZZZZZ	147365	8.70	203260	9.57	87132	12.83	102479	15.40	27781	6.29
MC19817-4	144580	8.70	194111	9.57	83290	12.83	97794	15.40	27275	6.28
MC19817-9	141022	8.70	189693	9.57	82031	12.83	98340	15.40	27036	6.27
ZZZZZZ	142710	8.70	190282	9.57	81102	12.83	96563	15.40	25281	6.28
MC19817-2	145496	8.70	194678	9.57	82263	12.83	100439	15.40	28858	6.28
MC19900-13	142470	8.70	192688	9.57	82532	12.83	99547	15.40	27747	6.28
ZZZZZZ	138544	8.70	188517	9.57	80004	12.83	91400	15.40	27888	6.29
MC19817-3	143120	8.70	198907	9.57	82208	12.83	101868	15.39	27880	6.28
MC19817-1	156028	8.70	212661	9.56	91569	12.83	119347	15.39	28890	6.28
ZZZZZZ	173931	8.70	233175	9.57	97601	12.83	123210	15.40	35917	6.28
MC19900-13MS	189888	8.70	268508	9.57	114380	12.83	148674	15.39	37942	6.27
MC19900-13MSD	193472	8.70	271159	9.57	117784	12.83	151552	15.39	38346	6.28
ZZZZZZ	175882	8.70	246929	9.57	98499	12.83	119937	15.40	34796	6.27
ZZZZZZ	181038	8.70	259902	9.57	101898	12.83	119582	15.40	36324	6.28
ZZZZZZ	168624	8.70	230539	9.57	94123	12.83	111269	15.40	33289	6.28
ZZZZZZ	159092	8.70	226057	9.57	89699	12.83	104812	15.40	31168	6.28
ZZZZZZ	150930	8.70	216411	9.57	86931	12.83	100037	15.40	28783	6.28
ZZZZZZ	145114	8.70	217266	9.57	84982	12.83	95656	15.40	27874	6.27
MC19817-7	145551	8.70	207135	9.57	84782	12.83	100392	15.40	27657	6.27
MC19817-8	138148	8.70	196399	9.57	79531	12.83	94309	15.40	26066	6.28

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH2005-CC1993	Injection Date:	04/22/13
Lab File ID:	H60638.D	Injection Time:	08:42
Instrument ID:	GCMSH	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	145518	8.70	203839	9.57	92365	12.82	122447	15.39	25920	6.27
Upper Limit [a]	291036	9.20	407678	10.07	184730	13.32	244894	15.89	51840	6.77
Lower Limit [b]	72759	8.20	101920	9.07	46183	12.32	61224	14.89	I2960	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH2005-BS	153I31	8.70	210431	9.57	97000	12.82	I24939	15.39	29597	6.27
MSH2005-MB	I41357	8.70	190495	9.57	79390	12.83	97297	15.40	27529	6.28
ZZZZZZ	145372	8.70	194657	9.57	82893	12.82	97308	15.40	28465	6.27
ZZZZZZ	I36877	8.70	185060	9.57	78268	12.83	93270	15.40	25790	6.28
ZZZZZZ	140480	8.70	184085	9.57	79168	I2.83	102070	15.39	26872	6.28
ZZZZZZ	151215	8.70	205268	9.57	84612	12.83	112538	15.39	30302	6.28
ZZZZZZ	145544	8.70	190398	9.57	82699	12.83	96284	15.40	25141	6.28
MC19817-6	146421	8.70	207407	9.56	83715	12.83	105266	15.39	26809	6.27
ZZZZZZ	77186	8.70	103196	9.57	43628[c]	12.82	51114[c]	15.39	13455	6.28
MC19817-1	137069	8.70	186849	9.57	80208	12.83	101333	15.40	28083	6.28
ZZZZZZ	139308	8.70	192444	9.57	79270	12.83	94053	15.40	26423	6.28
ZZZZZZ	137830	8.70	187984	9.57	78530	12.83	94049	15.40	27423	6.28
ZZZZZZ	133472	8.70	185664	9.57	77724	12.83	92782	15.40	26452	6.27
MC19922-1MS	142688	8.70	195289	9.57	89389	12.82	119300	15.39	27185	6.27
MC19922-1MSD	147065	8.70	202105	9.57	90566	12.83	118534	15.39	27790	6.27
MC19922-1	145886	8.70	197741	9.57	83263	12.83	102309	15.39	29211	6.27
ZZZZZZ	141347	8.70	190076	9.57	79817	12.83	96540	15.39	27936	6.28
ZZZZZZ	134414	8.70	178829	9.57	75395	12.83	86839	15.40	25563	6.28
ZZZZZZ	135303	8.70	177608	9.57	77080	12.83	86755	15.40	26425	6.27
ZZZZZZ	133099	8.70	178493	9.57	76610	12.83	88204	15.40	27318	6.28

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; Reteution 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.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19817-1	H60652.D	88.0	100.0	110.0
MC19817-1	H60620.D	86.0	103.0	113.0
MC19817-2	H60616.D	87.0	103.0	111.0
MC19817-3	H60619.D	90.0	97.0	114.0
MC19817-4	H60613.D	90.0	102.0	114.0
MC19817-6	H60650.D	89.0	98.0	110.0
MC19817-7	H60632.D	89.0	99.0	112.0
MC19817-8	H60633.D	88.0	98.0	112.0
MC19817-9	H60614.D	91.0	103.0	111.0
MC19900-13MS	H60622.D	93.0	99.0	106.0
MC19900-13MSD	H60623.D	92.0	99.0	105.0
MC19922-1MS	H60656.D	93.0	102.0	105.0
MC19922-1MSD	H60657.D	96.0	99.0	105.0
MSH2004-BS	H60609.D	96.0	101.0	106.0
MSH2004-MB	H60611.D	90.0	102.0	111.0
MSH2005-BS	H60639.D	94.0	101.0	104.0
MSH2005-MB	H60642.D	89.0	103.0	113.0

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	3.5	5.0	0.51	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	53%	15-110%
4165-62-2	Phenol-d5	34%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	92%	30-130%
321-60-8	2-Fluorobiphenyl	88%	30-130%
1718-51-0	Terphenyl-d14	89%	30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cone.	Units	Q
	Total TIC, Semi-Volatile		0	ug/l	

Method Blank Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-MB	I82727.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

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	48%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	79%	15-110%
4165-60-0	Nitrobenzene-d5	81%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	35.5	36	30-130
95-57-8	2-Chlorophenol	100	108	108	30-130
59-50-7	4-Chloro-3-methyl phenol	100	113	113	30-130
120-83-2	2,4-Dichlorophenol	100	120	120	30-130
105-67-9	2,4-Dimethylphenol	100	110	110	30-130
51-28-5	2,4-Dinitrophenol	100	119	119	30-130
534-52-1	4,6-Dinitro-o-cresol	100	127	127	30-130
95-48-7	2-Methylphenol	100	90.0	90	30-130
	3&4-Methylphenol	200	183	92	30-130
88-75-5	2-Nitrophenol	100	123	123	30-130
100-02-7	4-Nitrophenol	100	59.8	60	30-130
87-86-5	Peutachlorophenol	100	125	125	30-130
108-95-2	Phenol	100	56.2	56	30-130
95-95-4	2,4,5-Trichlorophenol	100	130	130	30-130
88-06-2	2,4,6-Trichlorophenol	100	126	126	30-130
62-53-3	Aniline	50	19.9	40	40-140
101-55-3	4-Bromophenyl phenyl ether	50	45.9	92	40-140
85-68-7	Butyl benzyl phthalate	50	46.0	92	40-140
100-51-6	Benzyl Alcohol	50	28.2	56	40-140
91-58-7	2-Chloronaphthalene	50	46.6	93	40-140
106-47-8	4-Chloroaniline	50	32.1	64	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	45.6	91	40-140
111-44-4	bis(2-Chloroethyl)ether	50	42.7	85	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	51.9	104	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	46.9	94	40-140
122-66-7	1,2-Diphenylhydrazine	50	45.8	92	40-140
121-14-2	2,4-Dinitrotoluene	50	47.2	94	40-140
606-20-2	2,6-Dinitrotoluene	50	50.3	101	40-140
91-94-1	3,3'-Dichlorobenzidine	50	5.9	12* a	40-140
132-64-9	Dibenzofuran	50	44.3	89	40-140
84-74-2	Di-n-butyl phthalate	50	46.2	92	40-140
117-84-0	Di-n-octyl phthalate	50	52.3	105	40-140
84-66-2	Diethyl phthalate	50	44.8	90	40-140
131-11-3	Dimethyl phthalate	50	33.3	67	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.4	97	40-140
118-74-1	Hexachlorobenzene	50	46.8	94	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	17.7	35* [a]	40-140
67-72-1	Hexachloroethane	50	38.5	77	40-140
78-59-1	Isophorone	50	49.0	98	40-140
88-74-4	2-Nitroaniline	50	47.8	96	40-140
99-09-2	3-Nitroaniline	50	35.6	71	40-140
100-01-6	4-Nitroaniline	50	42.4	85	40-140
98-95-3	Nitrobenzene	50	44.7	89	40-140
62-75-9	n-Nitrosodimethylamine	50	28.6	57	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	48.2	96	40-140
86-30-6	N-Nitrosodiphenylamine	50	45.4	91	40-140
110-86-1	Pyridine	50	21.8	44	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	56%	15-110%
4165-62-2	Phenol-d5	38%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	93%	30-130%
321-60-8	2-Fluorobiphenyl	90%	30-130%
1718-51-0	Terphenyl-d14	90%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-BS	I82728.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.5	79	40-140
208-96-8	Acenaphthylene	50	31.2	62	40-140
120-12-7	Anthracene	50	40.8	82	40-140
56-55-3	Benzo(a)anthracene	50	41.3	83	40-140
50-32-8	Benzo(a)pyrene	50	36.5	73	40-140
205-99-2	Benzo(b)fluoranthene	50	38.3	77	40-140
191-24-2	Benzo(g,h,i)perylene	50	45.0	90	40-140
207-08-9	Benzo(k)fluoranthene	50	42.4	85	40-140
218-01-9	Chrysene	50	39.4	79	40-140
53-70-3	Dibenzo(a,h)anthracene	50	40.3	81	40-140
206-44-0	Fluoranthene	50	41.3	83	40-140
86-73-7	Fluorene	50	37.2	74	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.5	79	40-140
90-12-0	1-Methylnaphthalene	50	38.4	77	40-140
91-57-6	2-Methylnaphthalene	50	37.8	76	40-140
85-01-8	Phenanthrene	50	40.6	81	40-140
129-00-0	Pyrene	50	40.8	82	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	50%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	15-110%
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	76%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

CAS No.	Compound	MC19800-2 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	60.7	61	59.1	59	3	30-130/20
95-57-8	2-Chlorophenol	ND		100	111	111	112	112	1	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	119	119	117	117	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	126	126	125	125	1	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	113	113	114	114	1	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	128	128	123	123	4	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	136	136* [a]	135	135* [a]	1	30-130/20
95-48-7	2-Methylphenol	ND		100	91.3	91	92.1	92	1	30-130/20
	3&4-Methylphenol	ND		200	189	95	185	93	2	30-130/20
88-75-5	2-Nitrophenol	ND		100	130	130	131	131* [a]	1	30-130/20
100-02-7	4-Nitrophenol	ND		100	60.9	61	60.6	61	0	30-130/20
87-86-5	Pentachlorophenol	ND		100	138	138* [a]	131	131* [a]	5	30-130/20
108-95-2	Phenol	2.7	J	100	52.1	49	52.5	50	1	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	137	137* [a]	134	134* [a]	2	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	134	134* [a]	130	130	3	30-130/20
62-53-3	Aniline	ND		50	21.8	44	23.2	46	6	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	46.8	94	46.2	92	1	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	48.3	97	47.2	94	2	40-140/20
100-51-6	Benzyl Alcohol	ND		50	29.3	59	31.4	63	7	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	47.9	96	47.7	95	0	40-140/20
106-47-8	4-Chloroaniline	ND		50	30.6	61	29.7	59	3	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	45.6	91	45.6	91	0	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	42.7	85	44.6	89	4	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	52.1	104	51.9	104	0	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	47.3	95	46.8	94	1	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	47.2	94	47.8	96	1	40-140/20
121-14-2	2,4-Dinitrotolnene	ND		50	47.8	96	47.4	95	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	50.5	101	50.6	101	0	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	5.7	11* [b]	6.0	12* [b]	5	40-140/20
132-64-9	Dibenzofnran	ND		50	45.4	91	44.4	89	2	40-140/20
84-74-2	Di-n-hutyl phthalate	ND		50	47.1	94	46.2	92	2	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	54.1	108	52.5	105	3	40-140/20
84-66-2	Diethyl phthalate	ND		50	46.0	92	45.2	90	2	40-140/20
131-11-3	Dimethyl phthalate	ND		50	37.5	75	35.4	71	6	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	3.1		50	49.8	93	48.8	91	2	40-140/20
118-74-1	Hexachlorobenzene	ND		50	48.9	98	48.0	96	2	40-140/20

* = Outside of Control Limits.

7.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

CAS No.	Compound	MC19800-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	19.2	38* [b]	18.4	37* [b]	4	40-140/20
67-72-1	Hexachloroethane	ND		50	40.2	80	42.2	84	5	40-140/20
78-59-1	Isophorone	ND		50	49.2	98	49.8	100	1	40-140/20
88-74-4	2-Nitroaniline	ND		50	48.3	97	48.4	97	0	40-140/20
99-09-2	3-Nitroaniline	ND		50	32.1	64	32.7	65	2	40-140/20
100-01-6	4-Nitroaniline	ND		50	42.5	85	43.4	87	2	40-140/20
98-95-3	Nitrobenzene	ND		50	45.1	90	47.0	94	4	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	27.7	55	28.3	57	2	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	47.9	96	48.3	97	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	47.1	94	46.1	92	2	40-140/20
110-86-1	Pyridine	ND		50	21.9	44	21.2	42	3	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-2	Limits
367-12-4	2-Fluorophenol	52%	53%	49%	15-110%
4165-62-2	Phenol-d5	35%	35%	32%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	95%	98%	15-110%
4165-60-0	Nitrobenzene-d5	93%	95%	89%	30-130%
321-60-8	2-Fluorobiphenyl	91%	92%	87%	30-130%
1718-51-0	Terphenyl-d14	91%	93%	93%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-MS	I82729.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
OP32682-MSD	I82730.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
MC19800-3	I82731.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19817-1, MC19817-2, MC19817-3, MC19817-6, MC19817-7, MC19817-8

7.3.2

CAS No.	Compound	MC19800-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	39.9	80	40.1	80	1	40-140/20
208-96-8	Acenaphthylene	ND		50	31.6	63	31.8	64	1	40-140/20
120-12-7	Anthracene	ND		50	41.3	83	41.2	82	0	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	41.8	84	41.9	84	0	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	36.8	74	37.2	74	1	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	38.3	77	39.4	79	3	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	45.4	91	45.9	92	1	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	43.6	87	42.5	85	3	40-140/20
218-01-9	Chrysene	ND		50	40.4	81	39.9	80	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	40.3	81	40.6	81	1	40-140/20
206-44-0	Fluoranthene	ND		50	41.9	84	41.7	83	0	40-140/20
86-73-7	Fluorene	ND		50	37.6	75	37.4	75	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.8	80	40.0	80	1	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	40.0	80	39.9	80	0	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	39.3	79	39.2	78	0	40-140/20
85-01-8	Phenanthrene	ND		50	41.4	83	41.1	82	1	40-140/20
129-00-0	Pyrene	ND		50	41.7	83	41.5	83	0	40-140/20

CAS No.	Surrogate Recoverics	MS	MSD	MC19800-3	Limits
367-12-4	2-Fluorophenol	49%	49%	44%	15-110%
4165-62-2	Phenol-d5	31%	32%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	80%	78%	15-110%
4165-60-0	Nitrohenzene-d5	80%	79%	77%	30-130%
321-60-8	2-Fluorobiphenyl	77%	76%	78%	30-130%
1718-51-0	Terphenyl-d14	80%	82%	81%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL

Check Std:	MSF2952-CC2937	Injection Date:	04/19/13
Lab File ID:	F63169.D	Injection Time:	08:03
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	26965	4.06	100596	5.05	64690	6.49	121165	7.84	140401	10.63	125531	12.10
Upper Limit [a]	53930	4.56	201192	5.55	129380	6.99	242330	8.34	280802	11.13	251062	12.60
Lower Limit [b]	13483	3.56	50298	4.55	32345	5.99	60583	7.34	70201	10.13	62766	11.60
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
OP32681-MB	21226	4.06	79894	5.05	51442	6.49	95555	7.84	108323	10.62	100710	12.10
OP32681-BS	21277	4.06	80083	5.06	51007	6.49	96593	7.85	109464	10.63	101150	12.10
OP32681-MS	21834	4.06	81093	5.05	51106	6.49	95945	7.85	107570	10.63	97193	12.10
OP32681-MSD	19466	4.06	73354	5.05	46863	6.49	88333	7.84	99932	10.63	91498	12.10
MC19800-2	18953	4.06	72238	5.05	46161	6.49	85827	7.84	96461	10.62	91108	12.09
ZZZZZZ	18531	4.06	71378	5.05	45366	6.49	82508	7.84	98329	10.62	93986	12.10
ZZZZZZ	20715	4.06	76937	5.05	48376	6.49	86774	7.84	107848	10.62	101918	12.10
ZZZZZZ	20319	4.06	77713	5.05	49940	6.49	93335	7.84	107821	10.63	102870	12.10
ZZZZZZ	20374	4.06	74799	5.05	48121	6.49	88844	7.84	101827	10.62	98665	12.10
ZZZZZZ	23166	4.06	85839	5.05	54949	6.49	102196	7.84	115402	10.62	110980	12.10
ZZZZZZ	19637	4.06	74741	5.05	46722	6.49	86792	7.84	98279	10.62	88652	12.10
ZZZZZZ	17899	4.06	67412	5.05	42872	6.49	78035	7.84	89138	10.62	81087	12.10
ZZZZZZ	18353	4.06	69053	5.05	44757	6.49	79546	7.84	91283	10.62	84577	12.10
ZZZZZZ	19039	4.06	67789	5.05	42435	6.49	75658	7.84	92757	10.63	90851	12.10
ZZZZZZ	17484	4.06	65541	5.05	41935	6.49	75092	7.84	85083	10.62	78046	12.10
ZZZZZZ	16753	4.06	64226	5.05	40927	6.49	74940	7.84	85678	10.62	79138	12.10
MC19817-1	21424	4.06	78351	5.05	47525	6.49	87765	7.84	100055	10.62	92231	12.10
MC19817-2	14882	4.06	56289	5.05	36520	6.49	66449	7.84	76983	10.62	71026	12.09
MC19817-3	17836	4.06	66536	5.05	41919	6.49	76671	7.84	88686	10.62	81904	12.10
MC19817-6	17739	4.06	67482	5.05	42611	6.49	79842	7.84	91406	10.62	85552	12.09
MC19817-7	16939	4.06	63790	5.05	41000	6.49	74543	7.84	86084	10.62	79340	12.10
MC19817-8	19408	4.06	70122	5.05	42447	6.49	77859	7.84	92969	10.62	85770	12.09
ZZZZZZ	18126	4.06	67802	5.05	43620	6.49	77842	7.84	87315	10.63	81870	12.10
ZZZZZZ	16406	4.06	62419	5.05	39403	6.49	72880	7.84	84791	10.62	75333	12.10

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
Instrument ID:	GCMSI	Method:	SW846 8270C BY SIM

	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	179692	3.39	460156	4.35	237134	5.75	434209	6.98	344879	9.71	639898	11.10
Upper Limit [a]	359384	3.89	920312	4.85	474268	6.25	868418	7.48	689758	10.21	1279796	11.60
Lower Limit [b]	89846	2.89	230078	3.85	118567	5.25	217105	6.48	172440	9.21	319949	10.60
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
OP32693-MB	139424	3.38	358365	4.35	182528	5.75	318374	6.98	250282	9.70	486696	11.10
OP32693-BS	139690	3.38	355246	4.35	183610	5.75	323862	6.99	256817	9.71	499776	11.10
OP32693-MS	130368	3.38	333129	4.35	171280	5.75	301573	6.98	237538	9.71	463846	11.10
OP32693-MSD	125331	3.38	320948	4.35	165486	5.74	297198	6.98	233451	9.70	451858	11.09
MC19800-9	144481	3.38	377139	4.35	189735	5.74	326402	6.98	266470	9.70	515316	11.09
ZZZZZZ	131278	3.38	334825	4.35	163915	5.74	287165	6.98	232011	9.70	458538	11.10
ZZZZZZ	122472	3.38	323344	4.35	167074	5.74	292322	6.98	238730	9.70	465652	11.09
OP32682-MB	148798	3.38	379002	4.35	194285	5.74	343460	6.98	278659	9.70	542303	11.09
OP32682-BS	153296	3.39	386293	4.35	198122	5.75	354075	6.99	274577	9.71	521264	11.10
OP32682-MS	155723	3.39	391581	4.35	201115	5.75	357436	6.99	274726	9.71	525274	11.10
OP32682-MSD	146672	3.39	374500	4.35	193256	5.75	346963	6.99	272228	9.71	525153	11.10
MC19800-3	157230	3.38	402876	4.35	203336	5.74	358154	6.98	279045	9.70	551300	11.10
ZZZZZZ	150080	3.38	382672	4.35	196813	5.74	351141	6.98	283440	9.70	565244	11.09
ZZZZZZ	137342	3.39	341792	4.35	173991	5.74	308917	6.98	247995	9.70	490916	11.09
ZZZZZZ	151165	3.39	373443	4.35	189460	5.74	335217	6.98	270943	9.70	532909	11.09
ZZZZZZ	174567	3.39	458604	4.35	224352	5.75	394969	6.98	312619	9.71	602698	11.10
ZZZZZZ	149620	3.39	388888	4.35	201733	5.75	364947	6.98	299036	9.70	580990	11.10
ZZZZZZ	145419	3.39	372209	4.35	193062	5.75	347268	6.98	283829	9.70	562118	11.10
ZZZZZZ	154647	3.39	396581	4.35	200338	5.74	352331	6.98	283827	9.71	546027	11.10
ZZZZZZ	153832	3.38	398126	4.35	203856	5.74	358521	6.98	292968	9.70	571587	11.10
MC19817-1	140627	3.38	367318	4.35	183513	5.75	337924	6.98	279273	9.71	547113	11.10
MC19817-2	124448	3.38	327531	4.35	173742	5.74	309890	6.98	258582	9.70	503738	11.10
MC19817-3	144516	3.38	373750	4.35	192239	5.74	349202	6.98	292199	9.71	574680	11.10
MC19817-6	141757	3.38	378382	4.35	196962	5.75	359156	6.98	302709	9.70	592309	11.10
MC19817-7	150396	3.39	398302	4.35	206391	5.75	372293	6.98	314997	9.71	621297	11.10
MC19817-8	136149	3.39	356418	4.36	185150	5.75	333478	6.99	275713	9.71	529195	11.10
ZZZZZZ	142746	3.38	376341	4.35	192528	5.75	351934	6.99	292685	9.71	548493	11.11
ZZZZZZ	152229	3.38	407303	4.35	214602	5.74	380880	6.98	327110	9.71	617058	11.10
ZZZZZZ	129337	3.39	342167	4.35	182913	5.74	332736	6.98	285283	9.70	558557	11.10

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
Instrument ID:	GCMSI	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.

7.4.2

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Semivolatile Internal Standard Area Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3078-CC3044	Injection Date:	04/25/13
Lab File ID:	I82829.D	Injection Time:	09:18
Instrument ID:	GCMS1	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	201878	3.38	495656	4.35	260023	5.75	475372	6.98	373731	9.71	698102	11.10
Upper Limit [a]	403756	3.88	991312	4.85	520046	6.25	950744	7.48	747462	10.21	1396204	11.60
Lower Limit [b]	100939	2.88	247828	3.85	130012	5.25	237686	6.48	186866	9.21	349051	10.60
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
MC19817-8	138465	3.38	339557	4.35	167611	5.74	308742	6.98	256659	9.70	496196	11.10
ZZZZZZ	110315	3.39	282740	4.35	147816	5.74	259064	6.98	210111	9.70	416568	11.09
ZZZZZZ	118015	3.39	305887	4.35	161107	5.74	281207	6.98	228028	9.70	452291	11.10
ZZZZZZ	149290	3.38	373278	4.35	191893	5.74	321577	6.98	253868	9.71	488295	11.10
ZZZZZZ	154483	3.38	400775	4.35	200798	5.74	341282	6.98	273701	9.70	522456	11.10
ZZZZZZ	153536	3.38	390417	4.35	196509	5.74	330680	6.98	266158	9.70	508299	11.10
ZZZZZZ	117941	3.38	306610	4.35	154974	5.74	267939	6.98	215440	9.70	419771	11.10
ZZZZZZ	149531	3.38	381789	4.35	187221	5.74	324216	6.98	261573	9.70	508438	11.10
ZZZZZZ	143159	3.38	369167	4.35	188794	5.74	324536	6.98	266545	9.70	512193	11.10
ZZZZZZ	145731	3.38	366875	4.35	185096	5.75	321624	6.98	259558	9.71	484912	11.11
ZZZZZZ	134443	3.38	343797	4.35	176369	5.74	304887	6.99	247309	9.71	463276	11.11
ZZZZZZ	123070	3.38	324319	4.35	167896	5.75	296471	6.99	242276	9.71	459046	11.11
OP32792-BS	149081	3.39	384658	4.35	204907	5.75	373501	6.99	279338	9.71	510384	11.10
OP32792-MS	135841	3.39	348883	4.35	182290	5.75	325164	6.99	233263	9.71	430582	11.10
OP32792-MSD	137585	3.39	359096	4.35	189668	5.75	338334	6.99	245099	9.71	450590	11.10
ZZZZZZ	155352	3.39	407260	4.35	209515	5.74	351696	6.98	255867	9.71	460473	11.10
MC19894-2	133003	3.39	349182	4.35	181484	5.74	315509	6.98	245558	9.71	444438	11.10

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Check Std:	MSU698-CC623	Injection Date:	04/24/13
Lab File ID:	U13741.D	Injection Time:	11:53
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	118113	2.86	424400	3.83	273757	5.21	471959	6.41	508710	9.07	485229	10.59
Upper Limit [a]	236226	3.36	848800	4.33	547514	5.71	943918	6.91	1017420	9.57	970458	11.09
Lower Limit [b]	59057	2.36	212200	3.33	136879	4.71	235980	5.91	254355	8.57	242615	10.09
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	145205	2.86	540622	3.81	319563	5.21	563287	6.40	617738	9.06	568396	10.58
ZZZZZZ	145897	2.86	547273	3.82	331656	5.21	590400	6.40	645543	9.06	612102	10.59
ZZZZZZ	141208	2.86	521647	3.81	319734	5.21	557534	6.40	592943	9.06	557974	10.58
MC19817-7	144084	2.86	527521	3.82	315201	5.21	557560	6.40	604015	9.06	561806	10.58
MC19817-8	113587	2.86	416581	3.82	256355	5.21	460136	6.40	523925	9.05	498179	10.58
ZZZZZZ	135778	2.86	496148	3.81	298910	5.21	530571	6.40	617127	9.06	578428	10.59
ZZZZZZ	138329	2.86	513288	3.81	319799	5.21	547555	6.40	621509	9.06	586036	10.58
ZZZZZZ	136755	2.86	510076	3.81	311542	5.21	553431	6.40	620086	9.06	587331	10.59
OP32739-MB	130209	2.86	478843	3.81	282881	5.21	488333	6.40	498093	9.06	451652	10.58
OP32739-BS	136850	2.86	483229	3.82	287991	5.21	477718	6.40	495135	9.06	437305	10.58
ZZZZZZ	122656	2.86	450860	3.81	265337	5.21	441761	6.40	435906	9.05	388132	10.58
ZZZZZZ	124641	2.86	456174	3.81	274224	5.21	477263	6.40	508729	9.05	446132	10.58
ZZZZZZ	119797	2.86	435359	3.82	200055	5.23	249462	6.45	363621	9.15	403355	10.67
ZZZZZZ	97453	2.86	342301	3.82	172858	5.24	220808*	6.46	318477	9.17	362806	10.70
ZZZZZZ	84096	2.86	303493	3.82	193899	5.21	347289	6.40	399933	9.06	369780	10.59
ZZZZZZ	93271	2.86	341059	3.82	216267	5.21	389886	6.40	440664	9.06	409907	10.59
ZZZZZZ	111436	2.86	399852	3.81	247037	5.21	416359	6.40	397321	9.06	333180	10.59
ZZZZZZ	108668	2.86	390635	3.82	246629	5.21	421283	6.40	445727	9.06	400674	10.59
ZZZZZZ	97078	2.86	346164	3.82	209691	5.21	359215	6.40	402178	9.07	370891	10.60
ZZZZZZ	46767*	2.86	146936*	3.82	113178*	5.21	149426*	6.42	99243*	9.18	82380*	10.77

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19817-1	F63190.D	48.0	45.0	94.0	92.0	86.0	68.0
MC19817-2	F63191.D	47.0	31.0	96.0	81.0	77.0	95.0
MC19817-3	F63192.D	43.0	31.0	92.0	86.0	85.0	83.0
MC19817-6	F63193.D	49.0	32.0	94.0	90.0	88.0	71.0
MC19817-7	U13745.D	44.0	28.0	69.0	64.0	65.0	58.0
MC19817-7	F63194.D	55.0	37.0	97.0	88.0	78.0	74.0
MC19817-8	U13746.D	20.0	15.0	42.0	49.0	39.0	32.0
MC19817-8	F63195.D	41.0	31.0	96.0	93.0	80.0	65.0
OP32681-BS	F63171.D	56.0	38.0	97.0	93.0	90.0	90.0
OP32681-MB	F63170.D	53.0	34.0	97.0	92.0	88.0	89.0
OP32681-MS	F63172.D	52.0	35.0	95.0	93.0	91.0	91.0
OP32681-MSD	F63173.D	53.0	35.0	95.0	95.0	92.0	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%

Semivolatile Surrogate Recovery Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19817-1	I82740.D	45.0	43.0	74.0	74.0	75.0	64.0
MC19817-2	I82741.D	42.0	31.0	76.0	71.0	70.0	89.0
MC19817-3	I82742.D	40.0	30.0	73.0	73.0	73.0	77.0
MC19817-6	I82743.D	43.0	30.0	77.0	76.0	76.0	68.0
MC19817-7	I82744.D	49.0	34.0	79.0	69.0	69.0	69.0
MC19817-8	I82830.D	36.0	25.0	72.0	79.0	69.0	61.0
MC19817-8	I82745.D	37.0	28.0	78.0	77.0	68.0	63.0
OP32682-BS	I82728.D	50.0	33.0	81.0	80.0	76.0	81.0
OP32682-MB	I82727.D	48.0	33.0	79.0	81.0	78.0	80.0
OP32682-MS	I82729.D	49.0	31.0	81.0	80.0	77.0	80.0
OP32682-MSD	I82730.D	49.0	32.0	80.0	79.0	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%

New England ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

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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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Ceutral Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-MB	BK23691.D	1	04/18/13	NK	04/17/13	OP32696	GBK833

The QC reported hcrc applies to the following samples: Method: SW846 8011

MC19817-1, MC19817-2, MC19817-3, MC19817-5, MC19817-6, MC19817-7, MC19817-8, MC19817-10

CAS No.	Compound	Result	RL	MDL	Units	Q
96-12-8	1,2-Dibromo-3-chloropropaue	ND	0.015	0.013	ug/l	
106-93-4	1,2-Dihromoethane	ND	0.015	0.010	ug/l	

CAS No.	Surrogate Recovcries		Limits
460-00-4	Bromofluorobenzene (S)	99%	36-173%
460-00-4	Bromofluorobenzene (S)	106%	36-173%

8.1.1

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Blank Spike Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-BS	BK23692.D	1	04/18/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19817-1, MC19817-2, MC19817-3, MC19817-5, MC19817-6, MC19817-7, MC19817-8, MC19817-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.064	90	60-140
106-93-4	1,2-Dibromoethane	0.071	0.070	99	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	96%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	36-173%

8.2.1

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* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32696-MS	BK23693.D	1	04/18/13	NK	04/17/13	OP32696	GBK833
OP32696-MSD	BK23694.D	1	04/18/13	NK	04/17/13	OP32696	GBK833
MC19724-5	BK23700.D	1	04/19/13	NK	04/17/13	OP32696	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19817-1, MC19817-2, MC19817-3, MC19817-5, MC19817-6, MC19817-7, MC19817-8, MC19817-10

CAS No.	Compound	MC19724-5 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		0.0727	0.058	80	0.057	77	2	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0727	0.072	99	0.073	99	1	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19724-5	Limits
460-00-4	Bromofluorobenzene (S)	99%	93%	84%	36-173%
460-00-4	Bromofluorobenzene (S)	104%	103%	97%	36-173%

8.3.1

8

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19817-1	BK23708.D	122.0	130.0
MC19817-2	BK23709.D	80.0	85.0
MC19817-3	BK23710.D	110.0	127.0
MC19817-5	BK23711.D	95.0	96.0
MC19817-6	BK23712.D	82.0	87.0
MC19817-7	BK23713.D	118.0	147.0
MC19817-8	BK23715.D	128.0	128.0
MC19817-10	BK23716.D	92.0	102.0
OP32696-BS	BK23692.D	96.0	104.0
OP32696-MB	BK23691.D	99.0	106.0
OP32696-MS	BK23693.D	99.0	104.0
OP32696-MSD	BK23694.D	93.0	103.0

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/18/13
Lab File ID:	BK23684.D	Injection Time:	19:38
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23685.D	04/18/13	20:02	4.45	4.89
ZZZZZZ	BK23686.D	04/18/13	20:25	4.45	4.88
ZZZZZZ	BK23687.D	04/18/13	20:48	4.45	4.88
ZZZZZZ	BK23688.D	04/18/13	21:12	4.45	4.88
ZZZZZZ	BK23689.D	04/18/13	21:36	4.45	4.88
ZZZZZZ	BK23690.D	04/18/13	22:01	4.45	4.89
OP32696-MB	BK23691.D	04/18/13	22:25	4.45	4.89
OP32696-BS	BK23692.D	04/18/13	22:49	4.45	4.89
OP32696-MS	BK23693.D	04/18/13	23:13	4.45	4.89
OP32696-MSD	BK23694.D	04/18/13	23:38	4.45	4.89

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: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/19/13
Lab File ID:	BK23706.D	Injection Time:	04:41
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.89

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23707.D	04/19/13	05:06	4.45	4.89
MC19817-1	BK23708.D	04/19/13	05:31	4.45	4.88
MC19817-2	BK23709.D	04/19/13	05:56	4.45	4.89
MC19817-3	BK23710.D	04/19/13	06:19	4.45	4.88
MC19817-5	BK23711.D	04/19/13	06:43	4.45	4.89
MC19817-6	BK23712.D	04/19/13	07:06	4.45	4.89
MC19817-7	BK23713.D	04/19/13	07:30	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobeuzene (S)

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

GC Surrogate Retention Time Summary

Job Number: MC19817
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/19/13
Lab File ID:	BK23714.D	Injection Time:	07:54
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.89

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC19817-8	BK23715.D	04/19/13	08:18	4.45	4.88
MC19817-10	BK23716.D	04/19/13	08:42	4.45	4.89
GBK833-ECC833	BK23717.D	04/19/13	09:07	4.45	4.89

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.3

Roxana Groundwater Quarterly – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19830

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/16/2013

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

Sample Identification	Sample Identification
MW13-ROX-041213	MW13-ROX-041213-EB
P56-ROX-041213	P59-ROX-041213
P59-ROX-041213-Dup	TB-ROX-041213-HCL
TB-ROX-041213-ST	P93C-ROX-041213

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 and SVOC LCS/LCSD recoveries were outside evaluation criteria. Although not indicated in the laboratory case narrative, phenol and di-n-butyl phthalate were detected in the method blank, and benzene was detected in the equipment blank. The difference in benzoic acid results for the field duplicate pair P59-ROX-041213/P59-ROX-041213-Dup was greater than two times (2X) the reporting level; therefore, results were qualified as estimated. Samples P56-ROX-041213 and field duplicate pair P59-ROX-041213/P59-ROX-041213-Dup were diluted due to high levels of VOC target analytes. Additionally, the initial calibration verification for acrolein and acetone exceeded 50 percent difference (%D). Professional judgment was used to qualify the common laboratory contaminant acetone in samples MW13-ROX-041213 and P93C-ROX-041213. 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?

Yes

Blank ID	Parameter	Analyte	Concentration/ Amount
MW13-ROX-041213-EB	VOCs	Benzene	2.6 ug/L
OP32681-MB	SVOCs	Phenol	3.5 ug/L
OP32692-MB	SVOCs	Di-n-butyl phthalate	2.2 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
MSV705-BS/BSD	VOCs	Acetone	**144/148**	3	70-130/25
MSV705-BS/BSD	VOCs	Acrolein	73/**67**	9	70-130/25
MSV709-BS/BSD	VOCs	Acetone	**187/178**	5	70-130/25
MSV709-BS/BSD	VOCs	2-Butanone (MEK)	**152/152**	1	70-130/25
MSV709-BS/BSD	VOCs	2-Hexanone	**166/156**	6	70-130/25
MSV709-BS/BSD	VOCs	Naphthalene	128/**132**	2	70-130/25
OP32681-BS	SVOCs	3,3'-Dichlorobenzidine	**12**	NA	40-140
OP32681-BS	SVOCs	Hexachlorocyclopentadiene	**35**	NA	40-140
OP32692-BS	SVOCs	3,3'-Dichlorobenzidine	**10**	NA	40-140
OP32692-BS	SVOCs	Dimethyl phthalate	**14**	NA	40-140
OP32692-BS	SVOCs	Hexachlorocyclopentadiene	**22**	NA	40-140
OP32692-BS	SVOCs	Hexachloroethane	**39**	NA	40-140
OP32692-BS	SVOCs	n-Nitrosodimethylamine	**36**	NA	40-140
OP32692-BS	SVOCs	Pyridine	**33**	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 MSV705-BS/BSD was associated with the equipment blank and trip blank quality control sample and are not qualified.

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-041213	VOCs	Acrolein	**UJ**
P59-ROX-041213	VOCs	Acrolein	**UJ**
P59-ROX-041213-Dup	VOCs	Acrolein	**UJ**

Sample ID	Parameter	Analyte	Qualification
P93C-ROX-041213	VOCs	Acrolein	**UJ**
P56-ROX-041213	VOCs	Naphthalene	**J**
MW13-ROX-041213	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW13-ROX-041213	SVOCs	Hexachlorocyclopentadiene	**UJ**
P56-ROX-041213	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P56-ROX-041213	SVOCs	Hexachlorocyclopentadiene	**UJ**
P59-ROX-041213	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P59-ROX-041213	SVOCs	Hexachlorocyclopentadiene	**UJ**
P59-ROX-041213-Dup	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P59-ROX-041213-Dup	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93C-ROX-041213	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P93C-ROX-041213	SVOCs	Dimethyl phthalate	**UJ**
P93C-ROX-041213	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93C-ROX-041213	SVOCs	Hexachloroethane	**UJ**
P93C-ROX-041213	SVOCs	n-Nitrosodimethylamine	**UJ**
P93C-ROX-041213	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?

Yes

Field ID	Field Duplicate ID
P59-ROX-041213	P59-ROX-041213-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
P59-ROX-041213	P59-ROX-041213-Dup	SVOCs	Benzoic acid	**>2X RL**	**J/J**

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 also used to qualify as estimated, however not reject, benzene data that was associated with equipment blank MW13-ROX-041213-EB due to comparable historical detections.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW13-ROX-041213	VOCs	Benzene	-	**J**

Additionally, the initial calibration verification for acrolein and acetone exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of acrolein was required. Acetone in associated samples was qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-041213	VOCs	Acetone	**UJ**
P59-ROX-041213	VOCs	Acetone	**UJ**
P59-ROX-041213-Dup	VOCs	Acetone	**UJ**
P93C-ROX-041213	VOCs	Acetone	**UJ**

Additionally, professional judgment was used to qualify the common laboratory contaminant acetone reported at concentrations more than two times (>2X) the reporting limit (RL), since acetone is not representative of site conditions.

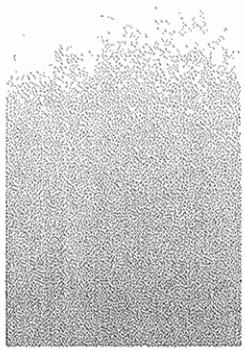
Sample ID	Analyte	New RL	Qualification	Comment
MW13-ROX-041213	Acetone	31.9 ug/L	**U**	Professional Judgment

Professional judgment was also used to qualify the common laboratory contaminant acetone reported at concentrations less than two times (<2X) the reporting limit (RL), since acetone is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
P93C-ROX-041213	Acetone	-	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19830

Sampling Date: 04/12/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

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

Reviewed on 5/16/2013

Reza Pand
Lab Director

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.

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)

Test results relate only to samples analyzed.

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Sample Summary

Shell Oil

Job No: MC19830

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19830-1	04/12/13	09:20	LRMM	04/13/13	AQ	Ground Water	MW13-ROX-041213
MC19830-2	04/12/13	09:40	LRMM	04/13/13	AQ	Equipment Blank	MW13-ROX-041213-EB
MC19830-3	04/12/13	12:50	LRMM	04/13/13	AQ	Ground Water	P56-ROX-041213
MC19830-4	04/12/13	14:25	LRMM	04/13/13	AQ	Ground Water	P59-ROX-041213
MC19830-5	04/12/13	14:25	LRMM	04/13/13	AQ	Ground Water	P59-ROX-041213-DUP
MC19830-6	04/12/13	00:00	LRMM	04/13/13	AQ	Trip Blank Water	TB-ROX-041213-HCL
MC19830-7	04/12/13	00:00	LRMM	04/13/13	AQ	Trip Blank Water	TB-ROX-041213-ST
MC19830-8	04/12/13	10:55	LRMM	04/13/13	AQ	Ground Water	P93C-ROX-041213

ACCUTEST LABORATORIES

N

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC19830
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	Report Date	5/1/2013 10:57:02 AM

6 Sample(s) and 2 Trip Blank(s) were collected on 04/12/2013 and were received at Accutest on 04/13/2013 properly preserved, at 1.3 Deg. C and intact. These Samples received an Accutest job number of MC19830. 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: MSV705

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19842-1MS, MC19842-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for Acetone are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplicate Recovery(s) for Acetone, 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.
- RPD(s) for MSD for 1,2,3-Trichlorobenzene, 2-Chloroethyl vinyl ether, Naphthalene are outside control limits for sample MC19842-1MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- Initial calibration verification MSV704-ICV704 for acrolein, acetone exceed 50% Difference. These compounds are within criteria in continuing calibration check MSV705-CC704 and MSV709-CC704.

Matrix AQ	Batch ID: MSV709

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19877-3MS, MC19877-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 2-Butanone (MEK), Acetone are outside control limits. Blank Spike meets program technical requirements.
- Blank Spike Duplicate Recovery(s) for 2-Butanone (MEK), Acetone, Naphthalene 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.
- RPD(s) for MSD for 2-Chloroethyl vinyl ether are outside control limits for sample MC19877-3MSD. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSV709-BS/BSD for 2-Hexanone: Outside control limits. Associated samples are non-detect for this compound.

Extractables by GCMS By Method SW846 8270C

Matrix AQ	Batch ID: OP32681

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-2MS, MC19800-2MSD were used as the QC samples indicated.
- BS/MS/MSD Recovery(s) for 3,3'-Dichlorobenzidine, Hexachlorocyclopentadiene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, 4,6-Dinitro-o-cresol, Pentachlorophenol are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2,4,5-Trichlorophenol, 2-Nitrophenol, 4,6-Dinitro-o-cresol, Pentachlorophenol are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.

Matrix AQ	Batch ID: OP32692

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19686-6MS, MC19686-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Blank Spike Recovery(s) for 3,3'-Dichlorobenzidine, Dimethyl phthalate, Hexachlorocyclopentadiene, Hexachloroethane, n-Nitrosodimethylamine, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- MS/MSD Recovery(s) for 3,3'-Dichlorobenzidine, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- RPD(s) for MSD for Benzoic Acid, Pentachlorophenol are outside control limits for sample OP32692-MSD. High RPD due to possible matrix interferenee and/or sample non-homogeneity.
- RPD of OP32692-MSD for Dimethyl phthalate: Outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix AQ	Batch ID: OP32682

- 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) MC19800-3MS, MC19800-3MSD were used as the QC samples indicated.

Matrix AQ	Batch ID: OP32693

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-9MS, MC19800-9MSD 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: OP32697

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-11MS, MC19800-11MSD 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(MC19830).

Summary of Hits

Job Number: MC19830
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/12/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19830-1	MW13-ROX-041213					
Acetone		31.9	10	3.0	ug/l	SW846 8260B
Benzene		10.2	0.50	0.24	ug/l	SW846 8260B
Methyl Tert Butyl Ether		9.3	1.0	0.41	ug/l	SW846 8260B
2-Methylnaphthalene		0.11 J	0.20	0.052	ug/l	SW846 8270C BY SIM
MC19830-2	MW13-ROX-041213-EB					
Benzene		2.6	0.50	0.24	ug/l	SW846 8260B
MC19830-3	P56-ROX-041213					
Benzene		131	1.0	0.48	ug/l	SW846 8260B
sec-Butylbenzene		14.2	10	1.1	ug/l	SW846 8260B
Ethylbenzene		691	2.0	1.0	ug/l	SW846 8260B
Isopropylbenzene		58.1	10	1.0	ug/l	SW846 8260B
Naphthalene		96.4	10	1.0	ug/l	SW846 8260B
n-Propylbenzene		80.5	10	1.2	ug/l	SW846 8260B
Toluene		79.9	2.0	1.0	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		270	10	0.69	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		48.6	10	0.93	ug/l	SW846 8260B
m,p-Xylene		1000	2.0	1.5	ug/l	SW846 8260B
o-Xylene		24.3	2.0	1.2	ug/l	SW846 8260B
Xylene (total)		1030	2.0	1.2	ug/l	SW846 8260B
Acenaphthene		0.53	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.088 J	0.11	0.015	ug/l	SW846 8270C BY SIM
Anthracene		0.10 J	0.11	0.019	ug/l	SW846 8270C BY SIM
Fluorene		0.32	0.11	0.051	ng/l	SW846 8270C BY SIM
1-Methylnaphthalene		20.8	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		23.9	0.22	0.057	ug/l	SW846 8270C BY SIM
Phenanthrene		1.2	0.055	0.014	ug/l	SW846 8270C BY SIM
MC19830-4	P59-ROX-041213					
Benzene		15000	25	12	ug/l	SW846 8260B
sec-Butylbenzene		289	250	28	ug/l	SW846 8260B
Ethylbenzene		2850	50	25	ug/l	SW846 8260B
Isopropylbenzene		62.0 J	250	25	ug/l	SW846 8260B
Naphthalene		664	250	25	ug/l	SW846 8260B
n-Propylbenzene		136 J	250	29	ug/l	SW846 8260B
Toluene		523	50	25	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		946	250	17	ug/l	SW846 8260B
m,p-Xylene		6520	50	37	ug/l	SW846 8260B
o-Xylene		646	50	29	ug/l	SW846 8260B

Summary of Hits

Job Number: MC19830
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/12/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Xylene (total)		7160	50	29	ug/l	SW846 8260B
Benzoic Acid		83.1	11	1.3	ug/l	SW846 8270C
2,4-Dimethylphenol		91.9	11	1.2	ug/l	SW846 8270C
2-Methylphenol		174	110	14	ug/l	SW846 8270C
3&4-Methylphenol		84.2	11	2.2	ug/l	SW846 8270C
Phenol		119	54	5.5	ug/l	SW846 8270C
Acenaphthene		0.57	0.11	0.015	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.13	0.11	0.014	ug/l	SW846 8270C BY SIM
Fluoranthene		0.077 J	0.11	0.035	ug/l	SW846 8270C BY SIM
Fluorene		0.64	0.11	0.050	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		24.7	0.22	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		36.9	0.22	0.056	ug/l	SW846 8270C BY SIM
Phenanthrene		1.2	0.054	0.014	ug/l	SW846 8270C BY SIM
Pyrene		0.098 J	0.11	0.038	ug/l	SW846 8270C BY SIM
MC19830-5	P59-ROX-041213-DUP					
Benzene		13400	25	12	ug/l	SW846 8260B
sec-Butylbenzene		288	250	28	ug/l	SW846 8260B
Ethylbenzene		2570	50	25	ug/l	SW846 8260B
Isopropylbenzene		54.3 J	250	25	ug/l	SW846 8260B
Naphthalene		547	250	25	ug/l	SW846 8260B
n-Propylbenzene		117 J	250	29	ug/l	SW846 8260B
Toluene		463	50	25	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		843	250	17	ug/l	SW846 8260B
m,p-Xylene		5890	50	37	ug/l	SW846 8260B
o-Xylene		591	50	29	ug/l	SW846 8260B
Xylene (total)		6480	50	29	ug/l	SW846 8260B
Benzoic Acid		51.8	11	1.3	ug/l	SW846 8270C
2,4-Dimethylphenol		91.4	11	1.2	ug/l	SW846 8270C
2-Methylphenol		154	110	14	ug/l	SW846 8270C
3&4-Methylphenol		79.4	11	2.1	ug/l	SW846 8270C
Phenol		101	53	5.4	ug/l	SW846 8270C
Acenaphthene		0.58	0.11	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.12	0.11	0.014	ug/l	SW846 8270C BY SIM
Fluoranthene		0.078 J	0.11	0.034	ug/l	SW846 8270C BY SIM
Fluorene		0.65	0.11	0.049	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		26.5	0.21	0.15	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		38.3	0.21	0.055	ug/l	SW846 8270C BY SIM
Phenanthrene		1.2	0.053	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.10 J	0.11	0.037	ug/l	SW846 8270C BY SIM
MC19830-6	TB-ROX-041213-HCL					
No hits reported in this sample.						

Summary of Hits

Job Number: MC19830
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/12/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19830-7	TB-ROX-041213-ST					
No hits reported in this sample.						
MC19830-8	P93C-ROX-041213					
Acetone		5.6 J	10	3.0	ug/l	SW846 8260B
Methyl Tert Butyl Ether		4.5	1.0	0.41	ug/l	SW846 8260B

New England ACCUTEST LABORATORIES

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW13-ROX-041213		
Lab Sample ID:	MC19830-1	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17864.D	1	04/22/13	AMY	n/a	n/a	MSV705
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	~~31.9~~	~~10~~ 31.9	3.0	ug/l	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	10.2	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	ng/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-Dichlorohenzene	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-041213		
Lab Sample ID:	MC19830-1	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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	9.3	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-Tetrachloroethaue	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	Trichlorofluoromethaue	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-041213		
Lab Sample ID:	MC19830-1	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	91%		70-130%
460-00-4	4-Bromofluorobenzene	92%		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-041213		
Lab Sample ID:	MC19830-1	Date Sampled:	04/12/13
Matrix:	AQ - Gronnd Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63196.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
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	0.39	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.59	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.1	0.52	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.58	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.86	ug/l	
100-51-6	Beuzyl Alcohol	ND	10	0.58	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.93	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.66	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.65	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.51	ug/l	U
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.1	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.44	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:	MW13-ROX-041213		
Lab Sample ID:	MC19830-1	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.51	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.1	0.44	ug/l	
78-59-1	Isophorone	ND	5.1	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.51	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.4	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.51	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.82	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.55	ng/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	50%		15-110%
4165-62-2	Phenol-d5	43%		15-110%
118-79-6	2,4,6-Tribromophenol	96%		15-110%
4165-60-0	Nitrobenzene-d5	86%		30-130%
321-60-8	2-Flnorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	50%		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:	MW13-ROX-041213		
Lab Sample ID:	MC19830-1	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82746.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	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	0.059	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	0.047	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	0.11	0.20	0.052	ug/l	J
85-01-8	Phenanthrene	ND	0.051	0.013	ng/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	71%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	51%		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-041213		
Lab Sample ID:	MC19830-1	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23679.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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)	103%		36-173%
460-00-4	Bromofluorobenzene (S)	102%		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:	MW13-ROX-041213-EB		
Lab Sample ID:	MC19830-2	Date Sampled:	04/12/13
Matrix:	AQ - Equipment Blank	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17862.D	1	04/22/13	AMY	n/a	n/a	MSV705
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	3.0	ng/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	2.6	0.50	0.24	ng/l	
108-86-1	Bromobenzene	ND	5.0	0.62	ug/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	ng/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-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-Dichloroetheue	ND	1.0	0.95	ug/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
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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:	MW13-ROX-041213-EB		
Lab Sample ID:	MC19830-2	Date Sampled:	04/12/13
Matrix:	AQ - Equipment Blank	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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 au 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-041213-EB		
Lab Sample ID:	MC19830-2	Date Sampled:	04/12/13
Matrix:	AQ - Equipment Blank	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	91%		70-130%
460-00-4	4-Bromofluorobenzene	92%		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
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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-041213-EB		
Lab Sample ID:	MC19830-2	Date Sampled:	04/12/13
Matrix:	AQ - Equipment Blank	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63197.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
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	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ng/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ng/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.64	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.5	0.56	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.63	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.35	ug/l	
62-53-3	Aniline	ND	11	0.70	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.5	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.5	0.94	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.63	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.5	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.5	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.5	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.5	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.5	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.5	0.72	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.74	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.71	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.5	0.55	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.5	0.43	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.5	0.48	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-041213-EB		
Lab Sample ID:	MC19830-2	Date Sampled:	04/12/13
Matrix:	AQ - Equipment Blank	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.55	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.54	ug/l	
118-74-1	Hexachlorobenzene	ND	5.5	0.33	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	
67-72-1	Hexachloroethane	ND	5.5	0.48	ug/l	
78-59-1	Isophoroue	ND	5.5	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.55	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.8	ug/l	
98-95-3	Nitrobenzene	ND	5.5	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.5	0.55	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.5	0.89	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.5	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.57	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	96%		15-110%
4165-60-0	Nitrobenzene-d5	86%		30-130%
321-60-8	2-Fluorobiphenyl	84%		30-130%
1718-51-0	Terphenyl-d14	90%		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-041213-EB		
Lab Sample ID:	MC19830-2	Date Sampled:	04/12/13
Matrix:	AQ - Equipment Blank	Date Received:	04/13/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82747.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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)fluorauthene	ND	0.055	0.026	ug/l	
191-24-2	Benzo(g,h,i)peryleue	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
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	84%		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:	MW13-ROX-041213-EB		
Lab Sample ID:	MC19830-2	Date Sampled:	04/12/13
Matrix:	AQ - Equipment Blank	Date Received:	04/13/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23680.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	33.6 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	0.016	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	96%		36-173%
460-00-4	Bromofluorobenzene (S)	101%		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-041213		
Lab Sample ID:	MC19830-3	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17978.D	2	04/24/13	AMY	n/a	n/a	MSV709
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	20	6.0	ug/l	
107-02-8	Acrolein	ND	50	20	ug/l	
107-13-1	Acrylonitrile	ND	10	6.5	ug/l	
71-43-2	Benzene	131	1.0	0.48	ug/l	
108-86-1	Bromobeuzene	ND	10	1.2	ug/l	
74-97-5	Bromochloromethane	ND	10	2.4	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	ND	10	1.2	ug/l	
135-98-8	sec-Butylbenzene	14.2	10	1.1	ug/l	
98-06-6	tert-Butylbenzene	ND	10	1.3	ug/l	
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	ND	4.0	1.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	10	2.5	ug/l	
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:	P56-ROX-041213		
Lab Sample ID:	MC19830-3	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South 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	691	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	58.1	10	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	10	1.1	ug/l	
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	96.4	10	1.0	ug/l	J
103-65-1	n-Propylbenzene	80.5	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	79.9	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	270	10	0.69	ug/l	
108-67-8	1,3,5-Trimethylbenzene	48.6	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	1000	2.0	1.5	ug/l	
95-47-6	o-Xylene	24.3	2.0	1.2	ug/l	
1330-20-7	Xylene (total)	1030	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 fouud in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041213		
Lab Sample ID:	MC19830-3	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	92%		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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	P56-ROX-041213		
Lab Sample ID:	MC19830-3	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63201.D	1	04/20/13	KR	04/16/13	OP32681	MSF2953
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	0.42	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.54	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.55	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.64	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.5	0.56	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.63	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.35	ug/l	
62-53-3	Aniline	ND	11	0.70	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.5	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.5	0.94	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.63	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.5	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.5	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.5	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.5	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.5	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.5	0.72	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.74	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.71	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.5	0.55	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.5	0.43	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.5	0.48	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-041213		
Lab Sample ID:	MC19830-3	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.55	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.54	ng/l	
118-74-1	Hexachlorobenzene	ND	5.5	0.33	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.5	0.48	ug/l	
78-59-1	Isophorone	ND	5.5	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.55	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.8	ug/l	
98-95-3	Nitrobenzene	ND	5.5	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.5	0.55	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.5	0.89	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.5	0.59	ug/l	
110-86-1	Pyridine	ND	11	0.57	ng/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	51%		15-110%
4165-62-2	Phenol-d5	34%		15-110%
118-79-6	2,4,6-Tribromophenol	100%		15-110%
4165-60-0	Nitrobenzene-d5	93%		30-130%
321-60-8	2-Fluorobipheuyl	81%		30-130%
1718-51-0	Terphenyl-d14	85%		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-041213		
Lab Sample ID:	MC19830-3	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82748.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
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	0.53	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	0.088	0.11	0.015	ug/l	J
120-12-7	Anthracene	0.10	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	
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	0.32	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	20.8	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	23.9	0.22	0.057	ug/l	
85-01-8	Phenanthrene	1.2	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
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	72%		30-130%
1718-51-0	Terphenyl-d14	82%		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-041213		
Lab Sample ID:	MC19830-3	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23681.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	34.2 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	0.013	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)	119%		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

Report of Analysis

Client Sample ID:	P59-ROX-041213		
Lab Sample ID:	MC19830-4	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17873.D	50	04/22/13	AMY	n/a	n/a	MSV705
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	150	ug/l	UJ
107-02-8	Acrolein	ND	1300	510	ug/l	UJ
107-13-1	Acrylonitrile	ND	250	160	ug/l	
71-43-2	Benzene	15000	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)	ND	250	120	ug/l	
104-51-8	n-Butylbenzene	ND	250	30	ug/l	
135-98-8	sec-Butylbenzene	289	250	28	ng/l	
98-06-6	tert-Butylbenzene	ND	250	32	ug/l	
75-15-0	Carbon disulfide	ND	250	31	ng/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:	P59-ROX-041213		
Lab Sample ID:	MC19830-4	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	2850	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	62.0	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	664	250	25	ug/l	
103-65-1	n-Propylbenzene	136	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	523	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	946	250	17	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	250	23	ug/l	
108-05-4	Vinyl Acetate	ND	250	63	ug/l	
75-01-4	Vinyl chloride	ND	50	31	ug/l	
	m,p-Xylene	6520	50	37	ug/l	
95-47-6	o-Xylene	646	50	29	ug/l	
1330-20-7	Xylene (total)	7160	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-041213		
Lab Sample ID:	MC19830-4	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		70-130%
2037-26-5	Toluene-D8	91%		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:	P59-ROX-041213		
Lab Sample ID:	MC19830-4	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63202.D	1	04/20/13	KR	04/16/13	OP32681	MSF2953
Run #2	U13795.D	10	04/25/13	NS	04/16/13	OP32681	MSU699

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	83.1	11	1.3	ng/l	J
95-57-8	2-Chlorophenol	ND	5.4	0.41	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.53	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylpheuol	91.9	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.7	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	174 [a]	110	14	ug/l	
	3&4-Methylphenol	84.2	11	2.2	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.54	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.63	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	119 [a]	54	5.5	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.62	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.34	ug/l	
62-53-3	Aniline	ND	11	0.69	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.4	0.22	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.4	0.92	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.4	0.99	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.27	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.4	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.4	0.25	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.4	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.4	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.4	0.70	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.73	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.69	ug/l	
91-94-1	3,3'-Dichlorohenzidine	ND	5.4	0.54	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.4	0.42	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.4	0.47	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:	P59-ROX-041213		
Lab Sample ID:	MC19830-4	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.54	ng/l	
131-11-3	Dimethyl phthalate	ND	5.4	0.54	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.53	ug/l	
118-74-1	Hexachlorobenzene	ND	5.4	0.32	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.7	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.4	0.47	ug/l	
78-59-1	Isophorone	ND	5.4	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.30	ug/l	
99-09-2	3-Nitroauiline	ND	11	0.54	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.7	ug/l	
98-95-3	Nitrobenzene	ND	5.4	0.27	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.4	0.54	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.4	0.87	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.4	0.58	ng/l	
110-86-1	Pyridine	ND	11	0.55	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	44%	47%	15-110%
4165-62-2	Phenol-d5	45%	37%	15-110%
118-79-6	2,4,6-Tribromophenol	105%	85%	15-110%
4165-60-0	Nitrobenzene-d5	94%	73%	30-130%
321-60-8	2-Fluorobiphenyl	85%	72%	30-130%
1718-51-0	Terphenyl-d14	72%	65%	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 fonnd in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P59-ROX-041213		
Lab Sample ID:	MC19830-4	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82831.D	1	04/25/13	NS	04/16/13	OP32682	MSI3078
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	0.57	0.11	0.015	ug/l	
208-96-8	Acenaphthylene	0.13	0.11	0.014	ug/l	
120-12-7	Anthracene	ND	0.11	0.019	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.054	0.032	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.11	0.019	ng/l	
205-99-2	Benzo(b)fluoranthene	ND	0.054	0.025	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	0.063	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	0.077	0.11	0.035	ug/l	J
86-73-7	Fluorene	0.64	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	24.7	0.22	0.15	ug/l	
91-57-6	2-Methylnaphthalene	36.9	0.22	0.056	ug/l	
85-01-8	Phenanthrene	1.2	0.054	0.014	ug/l	
129-00-0	Pyrene	0.098	0.11	0.038	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	73%		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:	P59-ROX-041213		
Lab Sample ID:	MC19830-4	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23682.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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	Bromofluorobenzene (S)	129%		36-173%
460-00-4	Bromofluorobeuzene (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:	P59-ROX-041213-DUP		
Lab Sample ID:	MC19830-5	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17874.D	50	04/22/13	AMY	n/a	n/a	MSV705
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	150	ug/l	UJ
107-02-8	Acrolein	ND	1300	510	ug/l	UJ
107-13-1	Acrylonitrile	ND	250	160	ug/l	
71-43-2	Benzene	13400	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)	ND	250	120	ug/l	
104-51-8	n-Butylbenzene	ND	250	30	ug/l	
135-98-8	sec-Butylbenzene	288	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:	P59-ROX-041213-DUP		
Lab Sample ID:	MC19830-5	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	2570	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	54.3	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	547	250	25	ug/l	
103-65-1	n-Propylbenzene	117	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	463	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	843	250	17	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	250	23	ug/l	
108-05-4	Vinyl Acetate	ND	250	63	ug/l	
75-01-4	Vinyl chloride	ND	50	31	ug/l	
	m,p-Xylene	5890	50	37	ug/l	
95-47-6	o-Xylene	591	50	29	ng/l	
1330-20-7	Xylene (total)	6480	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-041213-DUP		
Lab Sample ID:	MC19830-5	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		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:	P59-ROX-041213-DUP		
Lab Sample ID:	MC19830-5	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63203.D	1	04/20/13	KR	04/16/13	OP32681	MSF2953
Run #2	U13796.D	10	04/25/13	NS	04/16/13	OP32681	MSU699

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

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	51.8	11	1.3	ug/l	J
95-57-8	2-Chlorophenol	ND	5.3	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.52	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.35	ug/l	
105-67-9	2,4-Dimethylphenol	91.4	11	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	154 [a]	110	14	ng/l	
	3&4-Methylphenol	79.4	11	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.53	ng/l	
100-02-7	4-Nitrophenol	ND	21	0.61	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.3	ug/l	
108-95-2	Phenol	101 [a]	53	5.4	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.60	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.33	ug/l	
62-53-3	Aniline	ND	11	0.67	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	0.90	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	0.97	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	0.69	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.71	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.68	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.3	0.53	ug/l	UJ
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	0.41	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	0.46	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-041213-DUP		
Lab Sample ID:	MC19830-5	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.53	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.51	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.3	0.46	ng/l	
78-59-1	Isophorone	ND	5.3	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.53	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.6	ug/l	
98-95-3	Nitrobenzene	ND	5.3	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.3	0.53	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	0.85	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.57	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	40%	42%	15-110%
4165-62-2	Phenol-d5	42%	31%	15-110%
118-79-6	2,4,6-Tribromophenol	102%	74%	15-110%
4165-60-0	Nitrobenzene-d5	96%	69%	30-130%
321-60-8	2-Fluorobiphenyl	89%	71%	30-130%
1718-51-0	Terphenyl-d14	69%	53%	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:	P59-ROX-041213-DUP		
Lab Sample ID:	MC19830-5	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Aveuue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82832.D	1	04/25/13	NS	04/16/13	OP32682	MSI3078
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	0.58	0.11	0.014	ug/l	
208-96-8	Acenaphthylene	0.12	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	0.078	0.11	0.034	ug/l	J
86-73-7	Fluorene	0.65	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	26.5	0.21	0.15	ug/l	
91-57-6	2-Methylnaphthalene	38.3	0.21	0.055	ug/l	
85-01-8	Phenanthrene	1.2	0.053	0.013	ug/l	
129-00-0	Pyrene	0.10	0.11	0.037	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	73%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	66%		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-041213-DUP		
Lab Sample ID:	MC19830-5	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23683.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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)	146%		36-173%
460-00-4	Bromofluorobenzene (S)	127%		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:	TB-ROX-041213-HCL		
Lab Sample ID:	MC19830-6	Date Sampled:	04/12/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17861.D	1	04/22/13	AMY	n/a	n/a	MSV705
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	3.0	ug/l	
107-02-8	Acrolein	ND	25	10	ng/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	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	ng/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	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	ng/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 presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041213-HCL		
Lab Sample ID:	MC19830-6	Date Sampled:	04/12/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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 presnmptive evidence of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041213-HCL		
Lab Sample ID:	MC19830-6	Date Sampled:	04/12/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	91%		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-ROX-041213-ST		
Lab Sample ID:	MC19830-7	Date Sampled:	04/12/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/13/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23685.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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	Bromofluorobenzene (S)	92%		36-173%
460-00-4	Bromofluorobenzene (S)	98%		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-041213		
Lab Sample ID:	MC19830-8	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17863.D	1	04/22/13	AMY	n/a	n/a	MSV705
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	~~5.6~~ UJ	10	3.0	ug/l	J 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	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:	P93C-ROX-041213		
Lab Sample ID:	MC19830-8	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	4.5	1.0	0.41	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	2.9	ng/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	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	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
J = Indicates 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-041213		
Lab Sample ID:	MC19830-8	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	92%		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 valne
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041213		
Lab Sample ID:	MC19830-8	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11318.D	1	04/19/13	KR	04/17/13	OP32692	MSW528
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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	uJ
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	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 fonud in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P93C-ROX-041213		
Lab Sample ID:	MC19830-8	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.50	ug/l	UJ
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	UJ
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	UJ
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	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	23%		15-110%
4165-62-2	Phenol-d5	18%		15-110%
118-79-6	2,4,6-Tribromophenol	77%		15-110%
4165-60-0	Nitrobenzene-d5	72%		30-130%
321-60-8	2-Fluorobiphenyl	68%		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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-041213		
Lab Sample ID:	MC19830-8	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82725.D	1	04/19/13	NS	04/17/13	OP32693	MSI3075
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
4165-60-0	Nitrobenzene-d5	62%		30-130%
321-60-8	2-Fluorobiphenyl	61%		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:	P93C-ROX-041213		
Lab Sample ID:	MC19830-8	Date Sampled:	04/12/13
Matrix:	AQ - Ground Water	Date Received:	04/13/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23686.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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)	114%		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

New England ACCUTEST LABORATORIES

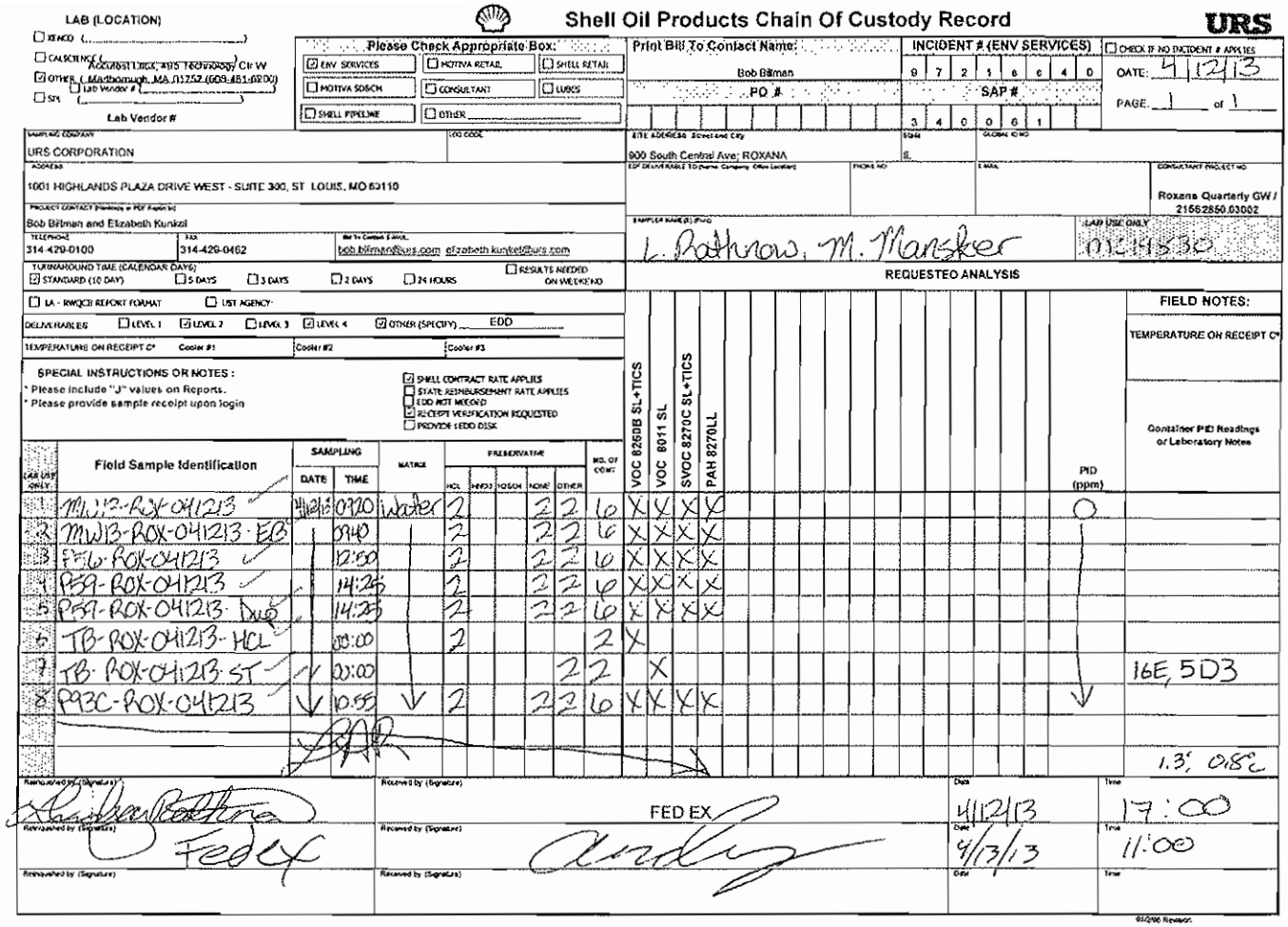
Misc. Forms

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

URS

LAB (LOCATION)
☐ XENCO (_____)
☐ CALSCIENCE (Accutest Circle with Testing) Circle
☑ OTHER (Marlborough, MA 01752 (508-481-6520))
☐ Lab Vendor # _____
☐ SPL (_____)
Lab Vendor #

Please Check Appropriate Box:
☑ ENV SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOSCH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER _____

Print Bill To Contact Name: Bob Bilman
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/12/13
PAGE: 1 of 1
PO #
SAP #: 3 4 0 0 6 1

SHIPPING COMPANY: URS CORPORATION
LOG CODE
SITE ADDRESS (Street and City): 900 South Central Ave; ROXANA
STATE
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 / 21562850.03002
PROJECT CONTACT (Hardcopy or PDF Report to): Bob Bilman and Elizabeth Kunkel
TELEPHONE: 314 429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.bilman@urs.com elizabeth.kunkel@urs.com
SAMPLER NAME (S) (PRINT): L. Rathnow, M. Mansker
LAB USE ONLY: 012-145330

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	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-ROX-041213	4/12/13	09:20	water	2			2	2	10	X	X	X	X		TEMPERATURE ON RECEIPT C°
2	MW13-ROX-041213-EB		09:40		2			2	2	10	X	X	X	X		
3	FB-ROX-041213		12:50		2			2	2	10	X	X	X	X		
4	P59-ROX-041213		14:25		2			2	2	10	X	X	X	X		
5	P59-ROX-041213-DUP		14:25		2			2	2	10	X	X	X	X		
6	TB-ROX-041213-HCL		00:00		2					2	X					
7	TB-ROX-041213-ST		00:00						2	2		X				16E, 5D3
8	P93C-ROX-041213		10:55		2			2	2	10	X	X	X	X		
																1.3; 0.8

Relinquished by (Signature): L. Rathnow — Received by (Signature): FED EX — Date: 4/12/13 — Time: 17:00
Relinquished by (Signature): FedEx — Received by (Signature): [signature] — Date: 4/13/13 — Time: 11:00
Relinquished by (Signature) — Received by (Signature) — Date — Time

01/2010 Revision

5.1

MC19830: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19830 Client: URS Immediate Client Services Action Required: No

Date / Time Received: 4/13/2013 Delivery Method: Client Service Action Required at Login: No

Project: 900 SOUTH CENTRAL No. Coolers: 2 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	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

MC19830: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19830

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19830-1 Collected: 12-APR-13 09:20 By: LRMM Received: 13-APR-13 By: MW13-ROX-041213						
MC19830-1	SW846 8011	18-APR-13 17:40	NK	17-APR-13	BJ	V8011SL
MC19830-1	SW846 8270C	19-APR-13 18:53	KR	16-APR-13	PA	AB8270SL+
MC19830-1	SW846 8270C BY SIM	19-APR-13 19:35	NS	16-APR-13	PA	B8270SIMSL
MC19830-1	SW846 8260B	22-APR-13 14:48	AMY			V8260SL+
MC19830-2 Collected: 12-APR-13 09:40 By: LRMM Received: 13-APR-13 By: MW13-ROX-041213-EB						
MC19830-2	SW846 8011	18-APR-13 18:04	NK	17-APR-13	BJ	V8011SL
MC19830-2	SW846 8270C	19-APR-13 19:17	KR	16-APR-13	PA	AB8270SL+
MC19830-2	SW846 8270C BY SIM	19-APR-13 19:58	NS	16-APR-13	PA	B8270SIMSL
MC19830-2	SW846 8260B	22-APR-13 13:54	AMY			V8260SL+
MC19830-3 Collected: 12-APR-13 12:50 By: LRMM Received: 13-APR-13 By: P56-ROX-041213						
MC19830-3	SW846 8011	18-APR-13 18:28	NK	17-APR-13	BJ	V8011SL
MC19830-3	SW846 8270C BY SIM	19-APR-13 20:22	NS	16-APR-13	PA	B8270SIMSL
MC19830-3	SW846 8270C	20-APR-13 11:52	KR	16-APR-13	PA	AB8270SL+
MC19830-3	SW846 8260B	24-APR-13 17:35	AMY			V8260SL+
MC19830-4 Collected: 12-APR-13 14:25 By: LRMM Received: 13-APR-13 By: P59-ROX-041213						
MC19830-4	SW846 8011	18-APR-13 18:51	NK	17-APR-13	BJ	V8011SL
MC19830-4	SW846 8270C	20-APR-13 12:16	KR	16-APR-13	PA	AB8270SL+
MC19830-4	SW846 8260B	22-APR-13 18:50	AMY			V8260SL+
MC19830-4	SW846 8270C BY SIM	25-APR-13 10:03	NS	16-APR-13	PA	B8270SIMSL
MC19830-4	SW846 8270C	25-APR-13 15:37	NS	16-APR-13	PA	AB8270SL+
MC19830-5 Collected: 12-APR-13 14:25 By: LRMM Received: 13-APR-13 By: P59-ROX-041213-DUP						
MC19830-5	SW846 8011	18-APR-13 19:15	NK	17-APR-13	BJ	V8011SL
MC19830-5	SW846 8270C	20-APR-13 12:40	KR	16-APR-13	PA	AB8270SL+
MC19830-5	SW846 8260B	22-APR-13 19:16	AMY			V8260SL+
MC19830-5	SW846 8270C BY SIM	25-APR-13 10:26	NS	16-APR-13	PA	B8270SIMSL

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19830

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19830-5	SW846 8270C	25-APR-13 15:58	NS	16-APR-13	PA	AB8270SL+
MC19830-6 Collected: 12-APR-13 00:00 By: LRMM Received: 13-APR-13 By: TB-ROX-041213-HCL						
MC19830-6	SW846 8260B	22-APR-13 13:28	AMY			V8260SL+
MC19830-7 Collected: 12-APR-13 00:00 By: LRMM Received: 13-APR-13 By: TB-ROX-041213-ST						
MC19830-7	SW846 8011	18-APR-13 20:02	NK	17-APR-13	BJ	V8011SL
MC19830-8 Collected: 12-APR-13 10:55 By: LRMM Received: 13-APR-13 By: P93C-ROX-041213						
MC19830-8	SW846 8011	18-APR-13 20:25	NK	17-APR-13	BJ	V8011SL
MC19830-8	SW846 8270C BY SIM	19-APR-13 11:24	NS	17-APR-13	PA	B8270SIMSL
MC19830-8	SW846 8270C	19-APR-13 13:13	KR	17-APR-13	PA	AB8270SL+
MC19830-8	SW846 8260B	22-APR-13 14:21	AMY			V8260SL+

Accutest Internal Chain of Custody

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/13/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19830-1.1	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19830-1.1	Michael Rolo		04/17/13 07:24	Depleted
MC19830-1.3	VOC Ref #5	Amy Min Yang	04/22/13 12:13	Retrieve from Storage
MC19830-1.3	Amy Min Yang	GCMSV	04/22/13 12:13	Load on Instrument
MC19830-1.3	GCMSV	Kerry Ryan	04/23/13 12:44	Unload from Instrument
MC19830-1.3	Kerry Ryan	VOC Ref #5	04/23/13 12:44	Return to Storage
MC19830-1.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19830-1.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19830-2.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19830-2.2	Michael Rolo		04/17/13 07:24	Depleted
MC19830-2.3	VOC Ref #5	Amy Min Yang	04/22/13 12:13	Retrieve from Storage
MC19830-2.3	Amy Min Yang	GCMSV	04/22/13 12:13	Load on Instrument
MC19830-2.3	GCMSV	Kerry Ryan	04/23/13 12:44	Unload from Instrument
MC19830-2.3	Kerry Ryan	VOC Ref #5	04/23/13 12:44	Retnrn to Storage
MC19830-2.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19830-2.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19830-3.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19830-3.2	Michael Rolo		04/17/13 07:24	Depleted
MC19830-3.3	VOC Ref #5	Amy Min Yang	04/24/13 16:19	Retrieve from Storage
MC19830-3.3	Amy Min Yang	GCMSV	04/24/13 16:19	Load on Instrnment
MC19830-3.3	GCMSV	Amy Min Yang	04/25/13 15:30	Unload from Instrnment
MC19830-3.3	Amy Min Yang	VOC Ref #5	04/25/13 15:30	Return to Storage
MC19830-3.4	VOC Ref #5	Amy Min Yang	04/22/13 12:13	Retrieve from Storage
MC19830-3.4	Amy Min Yang	GCMSV	04/22/13 12:13	Load on Instrument
MC19830-3.4	GCMSV	Kerry Ryan	04/23/13 12:44	Unload from Instrnment
MC19830-3.4	Kerry Ryan	VOC Ref #5	04/23/13 12:44	Return to Storage
MC19830-3.6	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19830-3.6	Bijan Jafari		04/20/13 08:36	Depleted
MC19830-4.1	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19830-4.1	Michael Rolo		04/17/13 07:24	Depleted
MC19830-4.4	VOC Ref #5	Amy Min Yang	04/22/13 12:13	Retrieve from Storage
MC19830-4.4	Amy Min Yang	GCMSV	04/22/13 12:13	Load on Instrument
MC19830-4.4	GCMSV	Kerry Ryan	04/23/13 12:44	Unload from Instrument

5.3

Accutest Internal Chain of Custody

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/13/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19830-4.4	Kerry Ryan	VOC Ref #5	04/23/13 12:44	Return to Storage
MC19830-4.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19830-4.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19830-5.2	Walk In Ref #22	Michael Rolo	04/16/13 07:10	Retrieve from Storage
MC19830-5.2	Michael Rolo		04/17/13 07:24	Depleted
MC19830-5.4	VOC Ref #5	Amy Min Yang	04/22/13 12:13	Retrieve from Storage
MC19830-5.4	Amy Min Yang	GCMSV	04/22/13 12:13	Load on Instrument
MC19830-5.4	GCMSV	Kerry Ryan	04/23/13 12:44	Unload from Instrument
MC19830-5.4	Kerry Ryan	VOC Ref #5	04/23/13 12:44	Return to Storage
MC19830-5.5	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19830-5.5	Bijan Jafari		04/20/13 08:36	Depleted
MC19830-6.1	VOC Ref #5	Amy Min Yang	04/22/13 12:13	Retrieve from Storage
MC19830-6.1	Amy Min Yang	GCMSV	04/22/13 12:13	Load on Instrument
MC19830-6.1	GCMSV	Kerry Ryan	04/23/13 12:44	Unload from Instrument
MC19830-6.1	Kerry Ryan	VOC Ref #5	04/23/13 12:44	Return to Storage
MC19830-7.2	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19830-7.2	Bijan Jafari		04/20/13 08:36	Depleted
MC19830-8.2	Walk In Ref #22	Michael Rolo	04/17/13 08:52	Retrieve from Storage
MC19830-8.2	Michael Rolo		04/18/13 07:20	Depleted
MC19830-8.3	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19830-8.3	Bijan Jafari		04/20/13 08:36	Depleted
MC19830-8.4	VOC Ref #5	Amy Min Yang	04/22/13 12:13	Retrieve from Storage
MC19830-8.4	Amy Min Yang	GCMSV	04/22/13 12:13	Load on Instrument
MC19830-8.4	GCMSV	Kerry Ryan	04/23/13 12:44	Unload from Instrument
MC19830-8.4	Kerry Ryan	VOC Ref #5	04/23/13 12:44	Return to 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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Aveuue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV705-MB	V17854.D	1	04/22/13	AMY	n/a	n/a	MSV705

6.1.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	Beuzene	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-Chloroetbyl 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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV705-MB	V17854.D	1	04/22/13	AMY	n/a	n/a	MSV705

6.1.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

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	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	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	ng/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	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	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.63	ng/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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV705-MB	V17854.D	1	04/22/13	AMY	n/a	n/a	MSV705

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	84%	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	

6.1.1

Method Blank Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-MB	V17972.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	1.2	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	
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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytieal Batch
MSV709-MB	V17972.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

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	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-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	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	

6.1.2

Method Blank Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-MB	V17972.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	84%	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	

6.1.2

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV705-BS	V17850.D	1	04/22/13	AMY	n/a	n/a	MSV705
MSV705-BSD	V17851.D	1	04/22/13	AMY	n/a	n/a	MSV705

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	71.9	144* a	73.8	148* a	3	70-130/25
107-02-8	Acrolein	250	182	73	167	67* a	9	70-130/25
107-13-1	Acrylonitrile	50	49.9	100	48.6	97	3	70-130/25
71-43-2	Benzene	50	46.4	93	45.6	91	2	70-130/25
108-86-1	Bromobenzene	50	50.5	101	50.4	101	0	70-130/25
74-97-5	Bromochloromethane	50	46.9	94	46.6	93	1	70-130/25
75-27-4	Bromodichloromethane	50	45.5	91	45.0	90	1	70-130/25
75-25-2	Bromoform	50	41.0	82	42.0	84	2	70-130/25
74-83-9	Bromomethane	50	53.3	107	52.4	105	2	70-130/25
78-93-3	2-Butanone (MEK)	50	60.3	121	62.1	124	3	70-130/25
104-51-8	n-Butylbenzene	50	48.2	96	46.9	94	3	70-130/25
135-98-8	sec-Butylbenzene	50	45.0	90	44.2	88	2	70-130/25
98-06-6	tert-Butylbenzene	50	50.6	101	49.7	99	2	70-130/25
75-15-0	Carbon disulfide	50	37.4	75	36.5	73	2	70-130/25
56-23-5	Carbon tetrachloride	50	45.1	90	43.8	88	3	70-130/25
108-90-7	Chlorobenzene	50	47.4	95	46.3	93	2	70-130/25
75-00-3	Chloroethane	50	54.5	109	53.2	106	2	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	41.2	82	42.4	85	3	70-130/25
67-66-3	Chloroform	50	47.7	95	46.3	93	3	70-130/25
74-87-3	Chloromethane	50	59.0	118	56.8	114	4	70-130/25
95-49-8	o-Chlorotoluene	50	48.3	97	48.0	96	1	70-130/25
106-43-4	p-Chlorotoluene	50	50.4	101	49.5	99	2	70-130/25
124-48-1	Dibromochloromethane	50	43.6	87	43.9	88	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	48.4	97	48.4	97	0	70-130/25
541-73-1	1,3-Dichlorobenzene	50	48.5	97	48.0	96	1	70-130/25
106-46-7	1,4-Dichlorobenzene	50	49.4	99	49.2	98	0	70-130/25
75-71-8	Dichlorodifluoromethane	50	48.0	96	47.0	94	2	70-130/25
75-34-3	1,1-Dichloroethane	50	48.7	97	47.4	95	3	70-130/25
107-06-2	1,2-Dichloroethane	50	47.4	95	47.0	94	1	70-130/25
75-35-4	1,1-Dichloroethene	50	43.5	87	42.5	85	2	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	47.1	94	45.7	91	3	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	43.8	88	43.1	86	2	70-130/25
78-87-5	1,2-Dichloropropane	50	48.5	97	48.1	96	1	70-130/25
142-28-9	1,3-Dichloropropane	50	47.7	95	48.5	97	2	70-130/25
594-20-7	2,2-Dichloropropane	50	50.1	100	48.6	97	3	70-130/25
563-58-6	1,1-Dichloropropene	50	50.4	101	49.6	99	2	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV705-BS	V17850.D	1	04/22/13	AMY	n/a	n/a	MSV705
MSV705-BSD	V17851.D	1	04/22/13	AMY	n/a	n/a	MSV705

6.2.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

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	44.1	88	43.9	88	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	46.1	92	46.6	93	1	70-130/25
123-91-1	1,4-Dioxane	250	215	86	233	93	8	70-130/25
97-63-2	Ethyl methacrylate	50	44.1	88	45.4	91	3	77-137/25
100-41-4	Ethylbenzene	50	52.9	106	51.9	104	2	70-130/25
87-68-3	Hexachlorobutadiene	50	49.2	98	48.7	97	1	70-130/25
591-78-6	2-Hexanone	50	62.1	124	63.5	127	2	70-130/25
98-82-8	Isopropylbenzene	50	53.0	106	52.0	104	2	70-130/25
99-87-6	p-Isopropyltoluene	50	49.5	99	48.8	98	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	40.1	80	41.3	83	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	45.8	92	48.0	96	5	70-130/25
74-95-3	Methylene bromide	50	48.0	96	48.1	96	0	70-130/25
75-09-2	Methylene chloride	50	43.2	86	42.5	85	2	70-130/25
91-20-3	Naphthalene	50	52.5	105	57.0	114	8	70-130/25
103-65-1	n-Propylbenzene	50	53.4	107	52.5	105	2	70-130/25
100-42-5	Styrene	50	51.8	104	51.3	103	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	47.5	95	47.0	94	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	53.3	107	54.9	110	3	70-130/25
127-18-4	Tetrachloroethene	50	47.5	95	46.3	93	3	70-130/25
108-88-3	Toluene	50	50.8	102	49.6	99	2	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	51.6	103	56.3	113	9	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	49.2	98	51.5	103	5	70-130/25
71-55-6	1,1,1-Trichloroethane	50	44.4	89	43.3	87	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	48.6	97	48.9	98	1	70-130/25
79-01-6	Trichloroethene	50	46.7	93	45.3	91	3	70-130/25
75-69-4	Trichlorofluoromethane	50	48.4	97	46.7	93	4	70-130/25
96-18-4	1,2,3-Trichloropropane	50	47.0	94	48.2	96	3	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	53.3	107	52.5	105	2	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	48.0	96	47.4	95	1	70-130/25
108-05-4	Vinyl Acetate	50	49.9	100	50.0	100	0	70-130/25
75-01-4	Vinyl chloride	50	48.6	97	46.6	93	4	70-130/25
	m,p-Xylene	100	104	104	103	103	1	70-130/25
95-47-6	o-Xylene	50	51.7	103	50.9	102	2	70-130/25
1330-20-7	Xylene (total)	150	156	104	154	103	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV705-BS	V17850.D	1	04/22/13	AMY	n/a	n/a	MSV705
MSV705-BSD	V17851.D	1	04/22/13	AMY	n/a	n/a	MSV705

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	87%	86%	70-130%
2037-26-5	Toluene-D8	91%	91%	70-130%
460-00-4	4-Bromofluorobenzene	91%	91%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-BS	V17968.D	1	04/24/13	AMY	n/a	n/a	MSV709
MSV709-BSD	V17969.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	93.6	187* [a]	89.1	178* [a]	5	70-130/25
107-02-8	Acrolein	250	200	80	177	71	12	70-130/25
107-13-1	Acrylonitrile	50	54.5	109	52.5	105	4	70-130/25
71-43-2	Benzene	50	50.3	101	48.7	97	3	70-130/25
108-86-1	Bromobenzene	50	54.6	109	54.1	108	1	70-130/25
74-97-5	Bromochloromethane	50	52.3	105	51.4	103	2	70-130/25
75-27-4	Bromodichloromethane	50	50.0	100	48.7	97	3	70-130/25
75-25-2	Bromoform	50	49.5	99	48.8	98	1	70-130/25
74-83-9	Bromomethane	50	53.7	107	51.3	103	5	70-130/25
78-93-3	2-Butanone (MEK)	50	76.2	152* [a]	75.8	152* [a]	1	70-130/25
104-51-8	n-Butylbenzene	50	49.8	100	48.9	98	2	70-130/25
135-98-8	sec-Butylbenzene	50	46.8	94	46.2	92	1	70-130/25
98-06-6	tert-Butylbenzene	50	52.2	104	51.6	103	1	70-130/25
75-15-0	Carbon disulfide	50	44.4	89	42.8	86	4	70-130/25
56-23-5	Carbon tetrachloride	50	48.8	98	47.1	94	4	70-130/25
108-90-7	Chlorobenzene	50	50.7	101	49.6	99	2	70-130/25
75-00-3	Chloroethane	50	56.6	113	52.8	106	7	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	51.7	103	50.7	101	2	70-130/25
67-66-3	Chloroform	50	50.6	101	49.3	99	3	70-130/25
74-87-3	Chloromethane	50	53.8	108	52.5	105	2	70-130/25
95-49-8	o-Chlorotoluene	50	51.1	102	50.3	101	2	70-130/25
106-43-4	p-Chlorotoluene	50	52.9	106	52.3	105	1	70-130/25
124-48-1	Dibromochloromethane	50	50.1	100	49.4	99	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	52.5	105	51.8	104	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	51.5	103	51.1	102	1	70-130/25
106-46-7	1,4-Dichlorobenzene	50	52.9	106	51.9	104	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	46.6	93	45.3	91	3	70-130/25
75-34-3	1,1-Dichloroethane	50	50.2	100	44.5	89	12	70-130/25
107-06-2	1,2-Dichloroethane	50	53.9	108	52.5	105	3	70-130/25
75-35-4	1,1-Dichloroethene	50	49.7	99	47.7	95	4	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	50.4	101	49.3	99	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	50.1	100	48.5	97	3	70-130/25
78-87-5	1,2-Dichloropropane	50	52.7	105	51.7	103	2	70-130/25
142-28-9	1,3-Dichloropropane	50	55.5	111	54.5	109	2	70-130/25
594-20-7	2,2-Dichloropropane	50	54.4	109	52.5	105	4	70-130/25
563-58-6	1,1-Dichloropropene	50	56.1	112	53.8	108	4	70-130/25

* = Outside of Control Limits.

6.2.2

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-BS	V17968.D	1	04/24/13	AMY	n/a	n/a	MSV709
MSV709-BSD	V17969.D	1	04/24/13	AMY	n/a	n/a	MSV709

6.2.2

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

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	49.7	99	48.9	98	2	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	53.8	108	52.5	105	2	70-130/25
123-91-1	1,4-Dioxane	250	306	122	300	120	2	70-130/25
97-63-2	Ethyl methacrylate	50	54.6	109	53.4	107	2	77-137/25
100-41-4	Ethylbenzene	50	56.0	112	54.8	110	2	70-130/25
87-68-3	Hexachlorobutadiene	50	51.2	102	50.9	102	1	70-130/25
591-78-6	2-Hexanone	50	83.0	166* b	78.2	156* b	6	70-130/25
98-82-8	Isopropylbenzene	50	55.8	112	55.0	110	1	70-130/25
99-87-6	p-Isopropyltoluene	50	51.9	104	51.2	102	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	49.5	99	49.3	99	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	59.7	119	57.8	116	3	70-130/25
74-95-3	Methylene bromide	50	55.3	111	54.4	109	2	70-130/25
75-09-2	Methylene chloride	50	49.1	98	47.7	95	3	70-130/25
91-20-3	Naphthalene	50	64.2	128	65.8	132* a	2	70-130/25
103-65-1	n-Propylbenzene	50	56.0	112	55.3	111	1	70-130/25
100-42-5	Styrene	50	55.7	111	54.6	109	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	51.3	103	50.4	101	2	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	63.4	127	63.4	127	0	70-130/25
127-18-4	Tetrachloroethene	50	51.2	102	49.6	99	3	70-130/25
108-88-3	Toluene	50	55.0	110	53.3	107	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	61.6	123	63.0	126	2	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	55.3	111	56.0	112	1	70-130/25
71-55-6	1,1,1-Trichloroethane	50	47.7	95	46.1	92	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	55.8	112	55.0	110	1	70-130/25
79-01-6	Trichloroethene	50	50.5	101	49.2	98	3	70-130/25
75-69-4	Trichlorofluoromethane	50	48.3	97	45.6	91	6	70-130/25
96-18-4	1,2,3-Trichloropropane	50	55.9	112	55.3	111	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.8	112	55.5	111	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	50.7	101	50.1	100	1	70-130/25
108-05-4	Vinyl Acetate	50	56.5	113	53.3	107	6	70-130/25
75-01-4	Vinyl chloride	50	47.3	95	45.0	90	5	70-130/25
	m,p-Xylene	100	111	111	108	108	3	70-130/25
95-47-6	o-Xylene	50	54.8	110	53.8	108	2	70-130/25
1330-20-7	Xylene (total)	150	166	111	162	108	2	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-BS	V17968.D	1	04/24/13	AMY	n/a	n/a	MSV709
MSV709-BSD	V17969.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	86%	86%	70-130%
2037-26-5	Toluene-D8	92%	91%	70-130%
460-00-4	4-Bromofluorobeuzene	91%	92%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits. Associated samples are non-detect for this compound.

6.2.2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19842-1MS	V17856.D	5	04/22/13	AMY	n/a	n/a	MSV705
MC19842-1MSD	V17857.D	5	04/22/13	AMY	n/a	n/a	MSV705
MC19842-1	V17855.D	1	04/22/13	AMY	n/a	n/a	MSV705

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

CAS No.	Compound	MC19842-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10 U		250	196	78	198	79	1	70-130/30
107-02-8	Acrolein	25 U		1250	1360	109	1410	113	4	70-130/30
107-13-1	Acrylonitrile	5.0 U		250	258	103	253	101	2	70-130/30
71-43-2	Benzene	0.50 U		250	234	94	234	94	0	70-130/30
108-86-1	Bromobenzene	5.0 U		250	253	101	256	102	1	70-130/30
74-97-5	Bromochloromethane	5.0 U		250	237	95	239	96	1	70-130/30
75-27-4	Bromodichloromethane	1.0 U		250	230	92	231	92	0	70-130/30
75-25-2	Bromoform	1.0 U		250	209	84	212	85	1	70-130/30
74-83-9	Bromomethane	2.0 U		250	266	106	262	105	2	70-130/30
78-93-3	2-Butanone (MEK)	5.0 U		250	232	93	239	96	3	70-130/30
104-51-8	n-Butylbenzene	5.0 U		250	238	95	241	96	1	70-130/30
135-98-8	sec-Butylbenzene	5.0 U		250	226	90	229	92	1	70-130/30
98-06-6	tert-Butylbenzene	5.0 U		250	254	102	253	101	0	70-130/30
75-15-0	Carbon disulfide	5.0 U		250	188	75	189	76	1	70-130/30
56-23-5	Carbon tetrachloride	1.0 U		250	234	94	229	92	2	70-130/30
108-90-7	Chlorobeuzene	1.0 U		250	238	95	235	94	1	70-130/30
75-00-3	Chloroethane	2.0 U		250	267	107	267	107	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	5.0 U		250	58.8	24* [a]	27.2	11* [a]	73* [b]	70-130/30
67-66-3	Chloroform	1.0 U		250	241	96	239	96	1	70-130/30
74-87-3	Chloromethane	2.0 U		250	300	120	287	115	4	70-130/30
95-49-8	o-Chlorotoluene	5.0 U		250	244	98	244	98	0	70-130/30
106-43-4	p-Chlorotoluene	5.0 U		250	253	101	253	101	0	70-130/30
124-48-1	Dibromochloromethane	1.0 U		250	220	88	221	88	0	70-130/30
95-50-1	1,2-Dichlorobenzene	1.0 U		250	236	94	246	98	4	70-130/30
541-73-1	1,3-Dichlorobenzene	1.0 U		250	241	96	244	98	1	70-130/30
106-46-7	1,4-Dichlorobenzene	1.0 U		250	247	99	250	100	1	70-130/30
75-71-8	Dichlorodifluoromethane	2.0 U		250	244	98	245	98	0	70-130/30
75-34-3	1,1-Dichloroethane	3.3		250	249	98	247	97	1	70-130/30
107-06-2	1,2-Dichloroethane	1.0 U		250	243	97	243	97	0	70-130/30
75-35-4	1,1-Dichloroethene	3.0		250	221	87	219	86	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	26.9		250	259	93	258	92	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	1.0 U		250	221	88	220	88	0	70-130/30
78-87-5	1,2-Dichloropropane	2.0 U		250	247	99	246	98	0	70-130/30
142-28-9	1,3-Dichloropropane	5.0 U		250	244	98	246	98	1	70-130/30
594-20-7	2,2-Dichloropropane	5.0 U		250	253	101	250	100	1	70-130/30
563-58-6	1,1-Dichloropropene	5.0 U		250	260	104	258	103	1	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19842-1MS	V17856.D	5	04/22/13	AMY	n/a	n/a	MSV705
MC19842-1MSD	V17857.D	5	04/22/13	AMY	n/a	n/a	MSV705
MC19842-1	V17855.D	1	04/22/13	AMY	n/a	n/a	MSV705

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

CAS No.	Compound	MC19842-1 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	0.50 U		250	218	87	221	88	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	0.50 U		250	234	94	238	95	2	70-130/30
123-91-1	1,4-Dioxane	25 U		1250	1170	94	1230	98	5	70-130/30
97-63-2	Ethyl methacrylate	5.0 U		250	222	89	229	92	3	72-139/30
100-41-4	Ethylbenzene	1.0 U		250	266	106	263	105	1	70-130/30
87-68-3	Hexachlorobutadiene	5.0 U		250	227	91	254	102	11	70-130/30
591-78-6	2-Hexanone	5.0 U		250	226	90	233	93	3	70-130/30
98-82-8	Isopropylbenzene	5.0 U		250	268	107	266	106	1	70-130/30
99-87-6	p-Isopropyltoluene	5.0 U		250	248	99	252	101	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	1.0 U		250	199	80	207	83	4	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0 U		250	230	92	237	95	3	70-130/30
74-95-3	Methylene bromide	5.0 U		250	244	98	249	100	2	70-130/30
75-09-2	Methylene chloride	2.0 U		250	214	86	216	86	1	70-130/30
91-20-3	Napbthalene	5.0 U		250	202	81	279	112	32* [b]	70-130/30
103-65-1	n-Propylbenzene	5.0 U		250	269	108	269	108	0	70-130/30
100-42-5	Styrene	5.0 U		250	261	104	258	103	1	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	5.0 U		250	238	95	238	95	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		250	268	107	281	112	5	70-130/30
127-18-4	Tetrachloroethene	1.4		250	240	95	235	93	2	70-130/30
108-88-3	Toluene	1.0 U		250	255	102	255	102	0	70-130/30
87-61-6	1,2,3-Trichlorobenzene	5.0 U		250	197	79	272	109	32* [b]	70-130/30
120-82-1	1,2,4-Trichlorobenzene	5.0 U		250	216	86	256	102	17	70-130/30
71-55-6	1,1,1-Trichloroethane	7.1		250	229	89	226	88	1	70-130/30
79-00-5	1,1,2-Trichloroethane	1.0 U		250	247	99	252	101	2	70-130/30
79-01-6	Trichloroethene	1.0		250	234	93	235	94	0	70-130/30
75-69-4	Trichlorofluoromethane	1.0 U		250	245	98	238	95	3	70-130/30
96-18-4	1,2,3-Trichloropropane	5.0 U		250	237	95	245	98	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	5.0 U		250	267	107	269	108	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	5.0 U		250	241	96	242	97	0	70-130/30
108-05-4	Vinyl Acetate	5.0 U		250	253	101	256	102	1	70-130/30
75-01-4	Vinyl chloride	1.0 U		250	236	94	235	94	0	70-130/30
	m,p-Xylene	1.0 U		500	522	104	519	104	1	70-130/30
95-47-6	o-Xylene	1.0 U		250	259	104	257	103	1	70-130/30
1330-20-7	Xylene (total)	1.0 U		750	781	104	776	103	1	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
MC19842-1MS	V17856.D	5	04/22/13	AMY	n/a	n/a	MSV705
MC19842-1MSD	V17857.D	5	04/22/13	AMY	n/a	n/a	MSV705
MC19842-1	V17855.D	1	04/22/13	AMY	n/a	n/a	MSV705

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-1, MC19830-2, MC19830-4, MC19830-5, MC19830-6, MC19830-8

CAS No.	Surrogate Recoveries	MS	MSD	MC19842-1	Limits
1868-53-7	Dibromofluoromethane	87%	87%	86%	70-130%
2037-26-5	Toluene-D8	91%	92%	91%	70-130%
460-00-4	4-Bromofluorobenzene	91%	92%	92%	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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19877-3MS	V17983.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3MSD	V17984.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3	V17974.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

CAS No.	Compound	MC19877-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	5.9	J	250	269	105	255	100	5	70-130/30
107-02-8	Acrolein	ND		1250	1570	126	1520	122	3	70-130/30
107-13-1	Acrylonitrile	ND		250	265	106	252	101	5	70-130/30
71-43-2	Benzene	ND		250	250	100	238	95	5	70-130/30
108-86-1	Bromobenzene	ND		250	269	108	261	104	3	70-130/30
74-97-5	Bromochloromethane	ND		250	262	105	250	100	5	70-130/30
75-27-4	Bromodichloromethane	ND		250	242	97	232	93	4	70-130/30
75-25-2	Bromoform	ND		250	238	95	232	93	3	70-130/30
74-83-9	Bromomethane	ND		250	257	103	251	100	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	290	116	276	110	5	70-130/30
104-51-8	n-Butylbenzene	ND		250	231	92	222	89	4	70-130/30
135-98-8	sec-Butylbenzene	ND		250	223	89	218	87	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	258	103	241	96	7	70-130/30
75-15-0	Carbon disulfide	ND		250	226	90	219	88	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	237	95	226	90	5	70-130/30
108-90-7	Chlorobenzene	ND		250	252	101	241	96	4	70-130/30
75-00-3	Chloroethane	ND		250	267	107	263	105	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* [a]	23.2	9* [a]	200* [b]	70-130/30
67-66-3	Chloroform	ND		250	249	100	238	95	5	70-130/30
74-87-3	Chloromethane	ND		250	261	104	250	100	4	70-130/30
95-49-8	o-Chlorotoluene	ND		250	249	100	240	96	4	70-130/30
106-43-4	p-Chlorotoluene	ND		250	257	103	245	98	5	70-130/30
124-48-1	Dibromochloromethane	ND		250	243	97	238	95	2	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	252	101	245	98	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	250	100	243	97	3	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	256	102	248	99	3	70-130/30
75-71-8	Dichlorodiflnoromethane	ND		250	228	91	219	88	4	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	258	103	247	99	4	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	258	103	246	98	5	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	255	102	246	98	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	250	100	243	97	3	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	256	102	246	98	4	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	259	104	247	99	5	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	276	110	265	106	4	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	253	101	242	97	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	274	110	259	104	6	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19877-3MS	V17983.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3MSD	V17984.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3	V17974.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

CAS No.	Compound	MC19877-3 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		250	237	95	225	90	5	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	261	104	248	99	5	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1390	111	1310	105	6	70-130/30
97-63-2	Ethyl methacrylate	ND		250	275	110	261	104	5	72-139/30
100-41-4	Ethylbenzene	ND		250	280	112	267	107	5	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	224	90	234	94	4	70-130/30
591-78-6	2-Hexanone	ND		250	296	118	282	113	5	70-130/30
98-82-8	Isopropylbenzene	ND		250	274	110	263	105	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	248	99	239	96	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	5.1		250	261	102	251	98	4	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	290	116	275	110	5	70-130/30
74-95-3	Methylene bromide	ND		250	275	110	259	104	6	70-130/30
75-09-2	Methylene chloride	ND		250	252	101	240	96	5	70-130/30
91-20-3	Naphthalene	ND		250	317	127	318	127	0	70-130/30
103-65-1	n-Propylbenzene	ND		250	270	108	260	104	4	70-130/30
100-42-5	Styrene	ND		250	275	110	264	106	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	254	102	244	98	4	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	312	125	302	121	3	70-130/30
127-18-4	Tetrachloroethene	ND		250	255	102	245	98	4	70-130/30
108-88-3	Toluene	ND		250	269	108	257	103	5	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	247	99	288	115	15	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	246	98	262	105	6	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		250	235	94	225	90	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	276	110	262	105	5	70-130/30
79-01-6	Trichloroethene	ND		250	247	99	236	94	5	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	227	91	220	88	3	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	265	106	257	103	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	278	111	262	105	6	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	246	98	234	94	5	70-130/30
108-05-4	Vinyl Acetate	ND		250	275	110	264	106	4	70-130/30
75-01-4	Vinyl chloride	ND		250	222	89	218	87	2	70-130/30
	m,p-Xylene	ND		500	556	111	527	105	5	70-130/30
95-47-6	o-Xylene	ND		250	274	110	263	105	4	70-130/30
1330-20-7	Xylene (total)	ND		750	830	111	791	105	5	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19877-3MS	V17983.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3MSD	V17984.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3	V17974.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19830-3

CAS No.	Surrogate Recoveries	MS	MSD	MC19877-3	Limits
1868-53-7	Dibromofluoromethane	85%	86%	87%	70-130%
2037-26-5	Toluene-D8	91%	90%	91%	70-130%
460-00-4	4-Bromofluorobenzene	91%	92%	93%	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.

Volatile Internal Standard Area Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV705-CC704	Injection Date:	04/22/13
Lab File ID:	V17849.D	Injection Time:	08:09
Instrument ID:	GCMSV	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	827135	6.51	1295208	7.70	600445	11.05	669406	13.26	104286	3.46
Upper Limit [a]	1654270	7.01	2590416	8.20	1200890	11.55	1338812	13.76	208572	3.96
Lower Limit [b]	413568	6.01	647604	7.20	300223	10.55	334703	12.76	52143	2.96
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV705-BS	830948	6.51	1312775	7.70	604219	11.05	673850	13.26	106542	3.46
MSV705-BSD	845226	6.50	1330374	7.69	613122	11.05	679619	13.26	116858	3.45
MSV705-MB	793943	6.50	1268389	7.69	579941	11.05	626658	13.26	100573	3.46
MC19842-1	782423	6.51	1251546	7.70	576742	11.05	616782	13.26	104049	3.46
MC19842-1MS	815363	6.51	1282990	7.70	593078	11.05	659689	13.26	106926	3.47
MC19842-1MSD	817939	6.50	1280971	7.69	598627	11.05	657523	13.26	115186	3.46
ZZZZZZ	826651	6.51	1320661	7.70	607169	11.05	665868	13.26	112636	3.46
ZZZZZZ	814979	6.50	1308905	7.70	599822	11.05	641174	13.26	114339	3.46
ZZZZZZ	770227	6.51	1238041	7.70	566413	11.05	601022	13.26	101124	3.46
MC19830-6	777546	6.51	1250348	7.70	577467	11.05	617161	13.26	102257	3.47
MC19830-2	789610	6.51	1275745	7.70	589803	11.05	628156	13.27	103421	3.47
MC19830-8	749363	6.51	1211931	7.70	562812	11.05	597032	13.27	101157	3.47
MC19830-1	755686	6.51	1228426	7.70	575316	11.05	636776	13.27	105072	3.46
ZZZZZZ	767983	6.51	1242401	7.70	574521	11.05	609186	13.27	94896	3.47
ZZZZZZ	750984	6.51	1223147	7.70	559559	11.05	600731	13.27	96189	3.47
ZZZZZZ	759440	6.51	1240008	7.70	572597	11.05	607168	13.27	99887	3.46
ZZZZZZ	729757	6.51	1185486	7.70	549762	11.05	598733	13.27	98072	3.46
ZZZZZZ	731357	6.51	1194698	7.70	562250	11.05	585815	13.27	86397	3.46
ZZZZZZ	717001	6.51	1183183	7.70	551218	11.05	581386	13.27	93257	3.47
MC19830-4	793890	6.51	1249086	7.70	581982	11.05	627181	13.27	106929	3.46
MC19830-5	815235	6.51	1285830	7.70	590879	11.05	647324	13.27	104197	3.47

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Check Std:	MSV709-CC704	Injection Date:	04/24/13
Lab File ID:	V17967.D	Injection Time:	12:43
Instrument ID:	GCMSV	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	796689	6.57	1246182	7.75	579737	11.09	647871	13.30	147193	3.52
Upper Limit [a]	1593378	7.07	2492364	8.25	1159474	11.59	1295742	13.80	294386	4.02
Lower Limit [b]	398345	6.07	623091	7.25	289869	10.59	323936	12.80	73597	3.02
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV709-BS	805628	6.57	1258154	7.75	586918	11.09	660280	13.30	149960	3.51
MSV709-BSD	814645	6.57	1280128	7.75	593957	11.09	658067	13.30	149886	3.51
MSV709-MB	773345	6.58	1233538	7.76	573291	11.09	632932	13.30	153391	3.52
ZZZZZZ	761614	6.58	1220735	7.76	564577	11.09	622909	13.30	148120	3.52
MC19877-3	790550	6.58	1290544	7.76	608056	11.09	682479	13.30	158483	3.52
ZZZZZZ	780378	6.58	1221899	7.76	578007	11.09	640236	13.30	169932	3.53
ZZZZZZ	804092	6.57	1254906	7.75	580900	11.09	647057	13.30	176928	3.51
ZZZZZZ	788545	6.57	1277121	7.75	588780	11.09	658310	13.30	639106[c]	3.51
MC19830-3	794637	6.58	1254474	7.76	589979	11.09	655979	13.30	218630	3.53
ZZZZZZ	799810	6.58	1269977	7.76	578154	11.09	641796	13.30	160036	3.52
ZZZZZZ	773447	6.58	1228403	7.76	570872	11.09	625536	13.30	166808	3.52
ZZZZZZ	790208	6.57	1246515	7.75	581559	11.09	634983	13.30	172630	3.52
ZZZZZZ	863248	6.58	1354351	7.76	629359	11.09	685739	13.30	179917	3.52
MC19877-3MS	841147	6.58	1321321	7.76	607543	11.09	685956	13.30	172624	3.52
MC19877-3MSD	862846	6.58	1370067	7.75	625301	11.09	707021	13.30	170413	3.52
ZZZZZZ	899811	6.57	1428328	7.75	661742	11.09	742101	13.30	166270	3.51
ZZZZZZ	831677	6.57	1323970	7.75	604687	11.09	681553	13.30	150741	3.51
ZZZZZZ	776130	6.57	1225834	7.75	565409	11.09	626173	13.30	132839	3.51
ZZZZZZ	813566	6.57	1281153	7.75	590502	11.09	659608	13.30	127207	3.51
ZZZZZZ	802007	6.57	1274527	7.75	588530	11.09	664155	13.30	127747	3.51
ZZZZZZ	785913	6.57	1237047	7.75	573088	11.09	643864	13.30	122273	3.51
ZZZZZZ	773459	6.57	1240730	7.75	576138	11.08	658068	13.30	123209	3.50
ZZZZZZ	752218	6.57	1194630	7.75	558466	11.09	627777	13.30	117421	3.51

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.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19830-1	V17864.D	86.0	91.0	92.0
MC19830-2	V17862.D	86.0	91.0	92.0
MC19830-3	V17978.D	82.0	91.0	92.0
MC19830-4	V17873.D	83.0	91.0	90.0
MC19830-5	V17874.D	83.0	90.0	91.0
MC19830-6	V17861.D	86.0	91.0	91.0
MC19830-8	V17863.D	87.0	91.0	92.0
MC19842-1MS	V17856.D	87.0	91.0	91.0
MC19842-1MSD	V17857.D	87.0	92.0	92.0
MC19877-3MS	V17983.D	85.0	91.0	91.0
MC19877-3MSD	V17984.D	86.0	90.0	92.0
MSV705-BS	V17850.D	87.0	91.0	91.0
MSV705-BSD	V17851.D	86.0	91.0	91.0
MSV705-MB	V17854.D	84.0	90.0	91.0
MSV709-BS	V17968.D	86.0	92.0	91.0
MSV709-BSD	V17969.D	86.0	91.0	92.0
MSV709-MB	V17972.D	84.0	90.0	91.0

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP3268I	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ng/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	3.5	5.0	0.51	ug/l	J
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

7.1.1

7

Method Blank Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MB	F63170.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ng/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	53%	15-110%
4165-62-2	Phenol-d5	34%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	92%	30-130%
321-60-8	2-Fluorobiphenyl	88%	30-130%
1718-51-0	Terphenyl-d14	89%	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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32692-MB	W11313.D	1	04/19/13	KR	04/17/13	OP32692	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-8

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ng/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	2.2	5.0	0.39	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32692-MB	W11313.D	1	04/19/13	KR	04/17/13	OP32692	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-8

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniliue	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	27%	15-110%
4165-62-2	Phenol-d5	20%	15-110%
118-79-6	2,4,6-Tribromophenol	61%	15-110%
4165-60-0	Nitrobenzene-d5	53%	30-130%
321-60-8	2-Fluorobiphenyl	45%	30-130%
1718-51-0	Terphenyl-d14	98%	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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-MB	I82727.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

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	48%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	79%	15-110%
4165-60-0	Nitrobenzene-d5	81%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	80%	30-130%

Method Blank Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32693-MB	I82720.D	1	04/19/13	NS	04/17/13	OP32693	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19830-8

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	ng/l	
218-01-9	Chrysene	ND	0.10	0.073	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.042	ng/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	24%	15-110%
4165-62-2	Phenol-d5	18%	15-110%
118-79-6	2,4,6-Tribromophenol	51%	15-110%
4165-60-0	Nitrobenzene-d5	47%	30-130%
321-60-8	2-Fluorobiphenyl	40%	30-130%
1718-51-0	Terphenyl-d14	76%	30-130%

Blank Spike Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	35.5	36	30-130
95-57-8	2-Chlorophenol	100	108	108	30-130
59-50-7	4-Chloro-3-methyl phenol	100	113	113	30-130
120-83-2	2,4-Dichlorophenol	100	120	120	30-130
105-67-9	2,4-Dimethylphenol	100	110	110	30-130
51-28-5	2,4-Dinitrophenol	100	119	119	30-130
534-52-1	4,6-Dinitro-o-cresol	100	127	127	30-130
95-48-7	2-Methylphenol	100	90.0	90	30-130
	3&4-Methylphenol	200	183	92	30-130
88-75-5	2-Nitrophenol	100	123	123	30-130
100-02-7	4-Nitrophenol	100	59.8	60	30-130
87-86-5	Pentachlorophenol	100	125	125	30-130
108-95-2	Phenol	100	56.2	56	30-130
95-95-4	2,4,5-Trichlorophenol	100	130	130	30-130
88-06-2	2,4,6-Trichlorophenol	100	126	126	30-130
62-53-3	Aniline	50	19.9	40	40-140
101-55-3	4-Bromophenyl phenyl ether	50	45.9	92	40-140
85-68-7	Butyl benzyl phthalate	50	46.0	92	40-140
100-51-6	Benzyl Alcohol	50	28.2	56	40-140
91-58-7	2-Chloronaphthalene	50	46.6	93	40-140
106-47-8	4-Chloroaniline	50	32.1	64	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	45.6	91	40-140
111-44-4	bis(2-Chloroethyl)ether	50	42.7	85	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	51.9	104	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	46.9	94	40-140
122-66-7	1,2-Diphenylhydrazine	50	45.8	92	40-140
121-14-2	2,4-Dinitrotoluene	50	47.2	94	40-140
606-20-2	2,6-Dinitrotoluene	50	50.3	101	40-140
91-94-1	3,3'-Dichlorobenzidine	50	5.9	12* a	40-140
132-64-9	Dibenzofuran	50	44.3	89	40-140
84-74-2	Di-n-butyl phthalate	50	46.2	92	40-140
117-84-0	Di-n-octyl phthalate	50	52.3	105	40-140
84-66-2	Diethyl phthalate	50	44.8	90	40-140
131-11-3	Dimethyl phthalate	50	33.3	67	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.4	97	40-140
118-74-1	Hexachlorobenzene	50	46.8	94	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
OP32681-BS	F63171.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	17.7	35* [a]	40-140
67-72-1	Hexachloroethane	50	38.5	77	40-140
78-59-1	Isophorone	50	49.0	98	40-140
88-74-4	2-Nitroaniline	50	47.8	96	40-140
99-09-2	3-Nitroaniline	50	35.6	71	40-140
100-01-6	4-Nitroaniline	50	42.4	85	40-140
98-95-3	Nitrobenzene	50	44.7	89	40-140
62-75-9	n-Nitrosodimethylamine	50	28.6	57	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	48.2	96	40-140
86-30-6	N-Nitrosodiphenylamine	50	45.4	91	40-140
110-86-1	Pyridine	50	21.8	44	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	56%	15-110%
4165-62-2	Phenol-d5	38%	15-110%
118-79-6	2,4,6-Tribromophenol	97%	15-110%
4165-60-0	Nitrobenzene-d5	93%	30-130%
321-60-8	2-Fluorobiphenyl	90%	30-130%
1718-51-0	Terphenyl-d14	90%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32692-BS	W11314.D	1	04/19/13	KR	04/17/13	OP32692	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	42.4	42	30-130
95-57-8	2-Chlorophenol	100	63.9	64	30-130
59-50-7	4-Chloro-3-methyl phenol	100	85.9	86	30-130
120-83-2	2,4-Dichlorophenol	100	78.2	78	30-130
105-67-9	2,4-Dimethylphenol	100	69.3	69	30-130
51-28-5	2,4-Dinitrophenol	100	108	108	30-130
534-52-1	4,6-Dinitro-o-cresol	100	111	111	30-130
95-48-7	2-Methylphenol	100	61.9	62	30-130
	3&4-Methylphenol	200	117	59	30-130
88-75-5	2-Nitrophenol	100	76.4	76	30-130
100-02-7	4-Nitrophenol	100	60.1	60	30-130
87-86-5	Pentachlorophenol	100	121	121	30-130
108-95-2	Phenol	100	30.7	31	30-130
95-95-4	2,4,5-Trichlorophenol	100	99.9	100	30-130
88-06-2	2,4,6-Trichlorophenol	100	99.2	99	30-130
62-53-3	Aniline	50	21.3	43	40-140
101-55-3	4-Bromophenyl phenyl ether	50	35.4	71	40-140
85-68-7	Butyl benzyl phthalate	50	25.4	51	40-140
100-51-6	Benzyl Alcohol	50	26.0	52	40-140
91-58-7	2-Chloronaphthalene	50	28.7	57	40-140
106-47-8	4-Chloroaniline	50	30.0	60	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	30.9	62	40-140
111-44-4	bis(2-Chloroethyl)ether	50	31.3	63	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	30.4	61	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	33.1	66	40-140
122-66-7	1,2-Diphenylhydrazine	50	40.5	81	40-140
121-14-2	2,4-Dinitrotoluene	50	43.2	86	40-140
606-20-2	2,6-Dinitrotoluene	50	40.0	80	40-140
91-94-1	3,3'-Dichlorobenzidine	50	4.9	10* [a]	40-140
132-64-9	Dibenzofuran	50	33.0	66	40-140
84-74-2	Di-n-butyl phthalate	50	36.3	73	40-140
117-84-0	Di-n-octyl phthalate	50	48.3	97	40-140
84-66-2	Diethyl phthalate	50	24.1	48	40-140
131-11-3	Dimethyl phthalate	50	6.9	14* [a]	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	43.8	88	40-140
118-74-1	Hexachlorobenzene	50	37.0	74	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32692-BS	W11314.D	1	04/19/13	KR	04/17/13	OP32692	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	50	11.0	22* a	40-140
67-72-1	Hexachloroethane	50	19.3	39* a	40-140
78-59-1	Isophorone	50	36.3	73	40-140
88-74-4	2-Nitroaniline	50	41.4	83	40-140
99-09-2	3-Nitroaniline	50	36.2	72	40-140
100-01-6	4-Nitroaniline	50	39.6	79	40-140
98-95-3	Nitrobenzene	50	28.7	57	40-140
62-75-9	n-Nitrosodimethylamine	50	18.2	36* a	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	32.2	64	40-140
86-30-6	N-Nitrosodiphenylamine	50	41.8	84	40-140
110-86-1	Pyridine	50	16.3	33* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	34%	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	61%	30-130%
321-60-8	2-Fluorobiphenyl	65%	30-130%
1718-51-0	Terphenyl-d14	99%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-BS	I82728.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	39.5	79	40-140
208-96-8	Acenaphthylene	50	31.2	62	40-140
120-12-7	Anthracene	50	40.8	82	40-140
56-55-3	Benzo(a)anthracene	50	41.3	83	40-140
50-32-8	Benzo(a)pyrene	50	36.5	73	40-140
205-99-2	Benzo(b)fluoranthene	50	38.3	77	40-140
191-24-2	Benzo(g,h,i)perylene	50	45.0	90	40-140
207-08-9	Benzo(k)fluoranthene	50	42.4	85	40-140
218-01-9	Chrysene	50	39.4	79	40-140
53-70-3	Dibenzo(a,h)anthracene	50	40.3	81	40-140
206-44-0	Fluoranthene	50	41.3	83	40-140
86-73-7	Fluorene	50	37.2	74	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.5	79	40-140
90-12-0	1-Methylnaphthalene	50	38.4	77	40-140
91-57-6	2-Methylnaphthalene	50	37.8	76	40-140
85-01-8	Phenanthrene	50	40.6	81	40-140
129-00-0	Pyrene	50	40.8	82	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	50%	15-110%
4165-62-2	Phenol-d5	33%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	15-110%
4165-60-0	Nitrobenzene-d5	80%	30-130%
321-60-8	2-Fluorobiphenyl	76%	30-130%
1718-51-0	Terphenyl-d14	81%	30-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32693-BS	I82721.D	1	04/19/13	NS	04/17/13	OP32693	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19830-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	29.7	59	40-140
208-96-8	Acenaphthylene	50	23.7	47	40-140
120-12-7	Anthracene	50	37.7	75	40-140
56-55-3	Benzo(a)anthracene	50	40.6	81	40-140
50-32-8	Benzo(a)pyrene	50	35.3	71	40-140
205-99-2	Benzo(b)fluoranthene	50	38.3	77	40-140
191-24-2	Benzo(g,h,i)perylene	50	44.6	89	40-140
207-08-9	Benzo(k)fluoranthene	50	41.3	83	40-140
218-01-9	Chrysene	50	38.9	78	40-140
53-70-3	Dibenzo(a,h)anthracene	50	39.1	78	40-140
206-44-0	Fluoranthene	50	39.6	79	40-140
86-73-7	Fluorene	50	30.6	61	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	38.5	77	40-140
90-12-0	1-Methylnaphthalene	50	25.7	51	40-140
91-57-6	2-Methylnaphthalene	50	24.9	50	40-140
85-01-8	Phenanthrene	50	37.5	75	40-140
129-00-0	Pyrene	50	39.7	79	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	30%	15-110%
4165-62-2	Phenol-d5	22%	15-110%
118-79-6	2,4,6-Tribromophenol	77%	15-110%
4165-60-0	Nitrobenzene-d5	56%	30-130%
321-60-8	2-Fluorobiphenyl	54%	30-130%
1718-51-0	Terphenyl-d14	79%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

CAS No.	Compound	MC19800-2 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	60.7	61	59.1	59	3	30-130/20
95-57-8	2-Chlorophenol	ND		100	111	111	112	112	1	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	119	119	117	117	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	126	126	125	125	1	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	113	113	114	114	1	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	128	128	123	123	4	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	136	136* [a]	135	135* [a]	1	30-130/20
95-48-7	2-Methylphenol	ND		100	91.3	91	92.1	92	1	30-130/20
	3&4-Methylphenol	ND		200	189	95	185	93	2	30-130/20
88-75-5	2-Nitrophenol	ND		100	130	130	131	131* [a]	1	30-130/20
100-02-7	4-Nitrophenol	ND		100	60.9	61	60.6	61	0	30-130/20
87-86-5	Pentachlorophenol	ND		100	138	138* [a]	131	131* [a]	5	30-130/20
108-95-2	Phenol	2.7	J	100	52.1	49	52.5	50	1	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	137	137* [a]	134	134* [a]	2	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	134	134* [a]	130	130	3	30-130/20
62-53-3	Aniline	ND		50	21.8	44	23.2	46	6	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	46.8	94	46.2	92	1	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	48.3	97	47.2	94	2	40-140/20
100-51-6	Benzyl Alcohol	ND		50	29.3	59	31.4	63	7	40-140/20
91-58-7	2-Chloronaphthalene	ND		50	47.9	96	47.7	95	0	40-140/20
106-47-8	4-Chloroaniline	ND		50	30.6	61	29.7	59	3	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	45.6	91	45.6	91	0	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	42.7	85	44.6	89	4	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	52.1	104	51.9	104	0	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	47.3	95	46.8	94	1	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	47.2	94	47.8	96	1	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		50	47.8	96	47.4	95	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		50	50.5	101	50.6	101	0	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	5.7	11* [b]	6.0	12* [b]	5	40-140/20
132-64-9	Dibenzofuran	ND		50	45.4	91	44.4	89	2	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	47.1	94	46.2	92	2	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	54.1	108	52.5	105	3	40-140/20
84-66-2	Diethyl phthalate	ND		50	46.0	92	45.2	90	2	40-140/20
131-11-3	Dimethyl phthalate	ND		50	37.5	75	35.4	71	6	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	3.1		50	49.8	93	48.8	91	2	40-140/20
118-74-1	Hexachlorobenzene	ND		50	48.9	98	48.0	96	2	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32681-MS	F63172.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
OP32681-MSD	F63173.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952
MC19800-2	F63174.D	1	04/19/13	KR	04/16/13	OP32681	MSF2952

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

7.3.1

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CAS No.	Compound	MC19800-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		50	19.2	38* [b]	18.4	37* [b]	4	40-140/20
67-72-1	Hexachloroethane	ND		50	40.2	80	42.2	84	5	40-140/20
78-59-1	Isophorone	ND		50	49.2	98	49.8	100	1	40-140/20
88-74-4	2-Nitroaniline	ND		50	48.3	97	48.4	97	0	40-140/20
99-09-2	3-Nitroaniline	ND		50	32.1	64	32.7	65	2	40-140/20
100-01-6	4-Nitroaniline	ND		50	42.5	85	43.4	87	2	40-140/20
98-95-3	Nitrobenzene	ND		50	45.1	90	47.0	94	4	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	27.7	55	28.3	57	2	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	47.9	96	48.3	97	1	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	47.1	94	46.1	92	2	40-140/20
110-86-1	Pyridine	ND		50	21.9	44	21.2	42	3	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-2	Limits
367-12-4	2-Fluorophenol	52%	53%	49%	15-110%
4165-62-2	Phenol-d5	35%	35%	32%	15-110%
118-79-6	2,4,6-Tribromophenol	95%	95%	98%	15-110%
4165-60-0	Nitrobenzene-d5	93%	95%	89%	30-130%
321-60-8	2-Fluorobiphenyl	91%	92%	87%	30-130%
1718-51-0	Terphenyl-d14	91%	93%	93%	30-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.
(b) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32692-MS	W11315.D	1	04/19/13	KR	04/17/13	OP32692	MSW528
OP32692-MSD	W11316.D	1	04/19/13	KR	04/17/13	OP32692	MSW528
MC19686-6	W11317.D	1	04/19/13	KR	04/17/13	OP32692	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-8

CAS No.	Compound	MC19686-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		109	35.6	33	51.1	48	36* [a]	30-130/20
95-57-8	2-Chlorophenol	ND		109	80.9	74	80.9	76	0	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		109	103	95	105	99	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		109	93.1	86	99.1	93	6	30-130/20
105-67-9	2,4-Dimethylphenol	ND		109	82.1	76	87.2	82	6	30-130/20
51-28-5	2,4-Dinitrophenol	ND		109	122	112	123	116	1	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		109	131	121	124	117	5	30-130/20
95-48-7	2-Methylphenol	ND		109	88.2	81	79.5	75	10	30-130/20
	3&4-Methylphenol	ND		217	167	77	152	71	9	30-130/20
88-75-5	2-Nitrophenol	ND		109	93.9	86	99.1	93	5	30-130/20
100-02-7	4-Nitrophenol	ND		109	73.1	67	68.3	64	7	30-130/20
87-86-5	Pentachlorophenol	ND		109	134	123	104	98	25* [a]	30-130/20
108-95-2	Phenol	ND		109	45.4	42	39.6	37	14	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		109	110	101	115	108	4	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		109	108	99	115	108	6	30-130/20
62-53-3	Aniline	ND		54.3	25.3	47	25.3	48	0	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		54.3	40.4	74	39.2	74	3	40-140/20
85-68-7	Butyl benzyl phthalate	ND		54.3	49.1	90	40.1	75	20	40-140/20
100-51-6	Benzyl Alcohol	ND		54.3	25.1	46	27.9	52	11	40-140/20
91-58-7	2-Chloronaphthalene	ND		54.3	33.6	62	34.2	64	2	40-140/20
106-47-8	4-Chloroaniline	ND		54.3	33.9	62	35.0	66	3	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		54.3	35.5	65	36.7	69	3	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		54.3	39.3	72	37.2	70	5	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		54.3	37.0	68	35.7	67	4	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		54.3	38.2	70	36.9	69	3	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		54.3	45.4	84	43.7	82	4	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		54.3	48.2	89	45.5	86	6	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		54.3	44.8	82	42.3	80	6	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		54.3	6.0	11* [b]	5.5	10* [b]	9	40-140/20
132-64-9	Dibenzofuran	ND		54.3	38.1	70	37.1	70	3	40-140/20
84-74-2	Di-n-butyl phthalate	ND		54.3	46.7	86	40.8	77	13	40-140/20
117-84-0	Di-n-octyl phthalate	ND		54.3	47.6	88	45.1	85	5	40-140/20
84-66-2	Diethyl phthalate	ND		54.3	46.1	85	38.3	72	18	40-140/20
131-11-3	Dimethyl phthalate	ND		54.3	43.1	79	28.6	54	40* [b]	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		54.3	44.4	82	45.2	85	2	40-140/20
118-74-1	Hexachlorobenzene	ND		54.3	41.7	77	38.5	72	8	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32692-MS	W11315.D	1	04/19/13	KR	04/17/13	OP32692	MSW528
OP32692-MSD	W11316.D	1	04/19/13	KR	04/17/13	OP32692	MSW528
MC19686-6	W11317.D	1	04/19/13	KR	04/17/13	OP32692	MSW528

The QC reported here applies to the following samples: Method: SW846 8270C

MC19830-8

CAS No.	Compound	MC19686-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		54.3	13.3	24* [b]	12.6	24* [b]	5	40-140/20
67-72-1	Hexachloroethane	ND		54.3	25.5	47	22.9	43	11	40-140/20
78-59-1	Isophorone	ND		54.3	40.4	74	42.3	80	5	40-140/20
88-74-4	2-Nitroaniline	ND		54.3	45.7	84	45.5	86	0	40-140/20
99-09-2	3-Nitroaniline	ND		54.3	41.4	76	39.0	73	6	40-140/20
100-01-6	4-Nitroaniline	ND		54.3	44.5	82	42.6	80	4	40-140/20
98-95-3	Nitrobenzene	ND		54.3	34.5	63	35.2	66	2	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		54.3	22.3	41	21.5	40	4	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		54.3	36.6	67	37.5	70	2	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		54.3	46.6	86	44.9	84	4	40-140/20
110-86-1	Pyridine	ND		54.3	19.2	35* [b]	17.9	34* [b]	7	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19686-6	Limits
367-12-4	2-Fluorophenol	39%	38%	32%	15-110%
4165-62-2	Phenol-d5	34%	30%	24%	15-110%
118-79-6	2,4,6-Trihromophenol	82%	81%	75%	15-110%
4165-60-0	Nitrobenzene-d5	70%	71%	62%	30-130%
321-60-8	2-Fluorobiphenyl	72%	75%	56%	30-130%
1718-51-0	Terphenyl-d14	64%	85%	74%	30-130%

(a) High RPD due to possible matrix interference and/or sample non-homogeneity.
(b) Outside control limits. Blank Spike meets program tecbnical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32682-MS	I82729.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
OP32682-MSD	I82730.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075
MC19800-3	I82731.D	1	04/19/13	NS	04/16/13	OP32682	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5

7.3.3

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CAS No.	Compound	MC19800-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	39.9	80	40.1	80	1	40-140/20
208-96-8	Acenaphthylene	ND		50	31.6	63	31.8	64	1	40-140/20
120-12-7	Anthracene	ND		50	41.3	83	41.2	82	0	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	41.8	84	41.9	84	0	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	36.8	74	37.2	74	1	40-140/20
205-99-2	Benzo(b)fluorantbene	ND		50	38.3	77	39.4	79	3	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	45.4	91	45.9	92	1	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	43.6	87	42.5	85	3	40-140/20
218-01-9	Chrysene	ND		50	40.4	81	39.9	80	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	40.3	81	40.6	81	1	40-140/20
206-44-0	Fluoranthene	ND		50	41.9	84	41.7	83	0	40-140/20
86-73-7	Fluorene	ND		50	37.6	75	37.4	75	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	39.8	80	40.0	80	1	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	40.0	80	39.9	80	0	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	39.3	79	39.2	78	0	40-140/20
85-01-8	Phenanthrene	ND		50	41.4	83	41.1	82	1	40-140/20
129-00-0	Pyrene	ND		50	41.7	83	41.5	83	0	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-3	Limits
367-12-4	2-Fluorophenol	49%	49%	44%	15-110%
4165-62-2	Phenol-d5	31%	32%	30%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	80%	78%	15-110%
4165-60-0	Nitrobenzene-d5	80%	79%	77%	30-130%
321-60-8	2-Fluorobiphenyl	77%	76%	78%	30-130%
1718-51-0	Terphenyl-d14	80%	82%	81%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32693-MS	I82722.D	1	04/19/13	NS	04/17/13	OP32693	MSI3075
OP32693-MSD	I82723.D	1	04/19/13	NS	04/17/13	OP32693	MSI3075
MC19800-9	I82724.D	1	04/19/13	NS	04/17/13	OP32693	MSI3075

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19830-8

CAS No.	Compound	MC19800-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		54.3	34.0	63	34.5	65	1	40-140/20
208-96-8	Acenaphthylene	ND		54.3	26.8	49	26.9	51	0	40-140/20
120-12-7	Anthracene	ND		54.3	41.9	77	38.5	72	8	40-140/20
56-55-3	Benzo(a)anthracene	ND		54.3	40.7	75	38.2	72	6	40-140/20
50-32-8	Benzo(a)pyrene	ND		54.3	35.0	64	32.6	61	7	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		54.3	38.8	71	35.4	67	9	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		54.3	43.9	81	40.8	77	7	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		54.3	39.4	72	38.1	72	3	40-140/20
218-01-9	Chrysene	ND		54.3	37.6	69	36.6	69	3	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		54.3	38.2	70	36.1	68	6	40-140/20
206-44-0	Fluoranthene	ND		54.3	43.8	81	39.9	75	9	40-140/20
86-73-7	Fluorene	ND		54.3	35.6	66	34.1	64	4	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		54.3	37.9	70	35.7	67	6	40-140/20
90-12-0	1-Methylnaphthalene	ND		54.3	30.7	56	31.0	58	1	40-140/20
91-57-6	2-Methylnaphthalene	ND		54.3	30.2	56	30.1	57	0	40-140/20
85-01-8	Phenanthrene	ND		54.3	42.3	78	38.8	73	9	40-140/20
129-00-0	Pyrene	ND		54.3	43.1	79	39.1	74	10	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-9	Limits
367-12-4	2-Fluorophenol	34%	34%	29%	15-110%
4165-62-2	Phenol-d5	29%	26%	22%	15-110%
118-79-6	2,4,6-Tribromophenol	75%	73%	64%	15-110%
4165-60-0	Nitrobenzene-d5	62%	62%	54%	30-130%
321-60-8	2-Fluorobiphenyl	59%	61%	49%	30-130%
1718-51-0	Terphenyl-d14	53%	69%	61%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2952-CC2937	Injection Date:	04/19/13
Lab File ID:	F63169.D	Injection Time:	08:03
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	26965	4.06	100596	5.05	64690	6.49	121165	7.84	140401	10.63	125531	12.10
Upper Limit [a]	53930	4.56	201192	5.55	129380	6.99	242330	8.34	280802	11.13	251062	12.60
Lower Limit [b]	13483	3.56	50298	4.55	32345	5.99	60583	7.34	70201	10.13	62766	11.60
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
OP32681-MB	21226	4.06	79894	5.05	51442	6.49	95555	7.84	108323	10.62	100710	12.10
OP32681-BS	21277	4.06	80083	5.06	51007	6.49	96593	7.85	109464	10.63	101150	12.10
OP32681-MS	21834	4.06	81093	5.05	51106	6.49	95945	7.85	107570	10.63	97193	12.10
OP32681-MSD	19466	4.06	73354	5.05	46863	6.49	88333	7.84	99932	10.63	91498	12.10
MC19800-2	18953	4.06	72238	5.05	46161	6.49	85827	7.84	96461	10.62	91108	12.09
ZZZZZZ	18531	4.06	71378	5.05	45366	6.49	82508	7.84	98329	10.62	93986	12.10
ZZZZZZ	20715	4.06	76937	5.05	48376	6.49	86774	7.84	107848	10.62	101918	12.10
ZZZZZZ	20319	4.06	77713	5.05	49940	6.49	93335	7.84	107821	10.63	102870	12.10
ZZZZZZ	20374	4.06	74799	5.05	48121	6.49	88844	7.84	101827	10.62	98665	12.10
ZZZZZZ	23166	4.06	85839	5.05	54949	6.49	102196	7.84	115402	10.62	110980	12.10
ZZZZZZ	19637	4.06	74741	5.05	46722	6.49	86792	7.84	98279	10.62	88652	12.10
ZZZZZZ	17899	4.06	67412	5.05	42872	6.49	78035	7.84	89138	10.62	81087	12.10
ZZZZZZ	18353	4.06	69053	5.05	44757	6.49	79546	7.84	91283	10.62	84577	12.10
ZZZZZZ	19039	4.06	67789	5.05	42435	6.49	75658	7.84	92757	10.63	90851	12.10
ZZZZZZ	17484	4.06	65541	5.05	41935	6.49	75092	7.84	85083	10.62	78046	12.10
ZZZZZZ	16753	4.06	64226	5.05	40927	6.49	74940	7.84	85678	10.62	79138	12.10
ZZZZZZ	21424	4.06	78351	5.05	47525	6.49	87765	7.84	100055	10.62	92231	12.10
ZZZZZZ	14882	4.06	56289	5.05	36520	6.49	66449	7.84	76983	10.62	71026	12.09
ZZZZZZ	17836	4.06	66536	5.05	41919	6.49	76671	7.84	88686	10.62	81904	12.10
ZZZZZZ	17739	4.06	67482	5.05	42611	6.49	79842	7.84	91406	10.62	85552	12.09
ZZZZZZ	16939	4.06	63790	5.05	41000	6.49	74543	7.84	86084	10.62	79340	12.10
ZZZZZZ	19408	4.06	70122	5.05	42447	6.49	77859	7.84	92969	10.62	85770	12.09
MC19830-1	18126	4.06	67802	5.05	43620	6.49	77842	7.84	87315	10.63	81870	12.10
MC19830-2	16406	4.06	62419	5.05	39403	6.49	72880	7.84	84791	10.62	75333	12.10

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2953-CC2937	Injection Date:	04/20/13
Lab File ID:	F63200.D	Injection Time:	11:28
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	36988	4.06	138418	5.05	89939	6.49	171014	7.85	197698	10.63	179703	12.10
Upper Limit [a]	73976	4.56	276836	5.55	179878	6.99	342028	8.35	395396	11.13	359406	12.60
Lower Limit [b]	18494	3.56	69209	4.55	44970	5.99	85507	7.35	98849	10.13	89852	11.60
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
MC19830-3	22993	4.06	87013	5.05	56707	6.49	104620	7.84	124793	10.62	119091	12.10
MC19830-4	24846	4.06	95457	5.06	59947	6.49	109447	7.84	130397	10.62	122404	12.10
MC19830-5	24316	4.06	91885	5.05	56790	6.49	105478	7.84	123778	10.62	115815	12.10
OP32718-MB	27944	4.06	106341	5.05	68510	6.49	126319	7.84	139296	10.62	127913	12.10
OP32718-BS	31464	4.06	118332	5.05	76546	6.49	141743	7.84	159379	10.63	147224	12.10
OP32708-MB	23706	4.06	90642	5.05	57741	6.49	109572	7.84	130024	10.62	120576	12.10
OP32710-MB	23706	4.06	90642	5.05	57741	6.49	109572	7.84	130024	10.62	120576	12.10
OP32710-BS	22508	4.06	85088	5.05	54489	6.49	103159	7.85	121568	10.62	112602	12.09
OP32708-BS	22508	4.06	85088	5.05	54489	6.49	103159	7.85	121568	10.62	112602	12.09
OP32710-MS	24628	4.06	90977	5.05	58929	6.49	111202	7.84	127558	10.63	120917	12.09
OP32708-MS	24628	4.06	90977	5.05	58929	6.49	111202	7.84	127558	10.63	120917	12.09
OP32710-MSD	23342	4.06	86599	5.05	55305	6.49	103318	7.84	118662	10.63	110102	12.09
OP32708-MSD	23342	4.06	86599	5.05	55305	6.49	103318	7.84	118662	10.63	110102	12.09
MC19800-15	24945	4.06	96324	5.05	62870	6.49	116217	7.84	134271	10.62	129225	12.09
MC19800-16	24945	4.06	96324	5.05	62870	6.49	116217	7.84	134271	10.62	129225	12.09
ZZZZZZ	22256	4.06	84987	5.05	54971	6.49	102213	7.84	120323	10.62	116169	12.09
ZZZZZZ	24075	4.06	90027	5.05	58893	6.49	109863	7.84	129379	10.62	125258	12.09
ZZZZZZ	24631	4.06	92872	5.05	59521	6.49	111323	7.84	126752	10.62	121280	12.09
ZZZZZZ	25134	4.06	94097	5.05	60144	6.49	110792	7.83	126846	10.62	122131	12.09
ZZZZZZ	26352	4.06	98118	5.05	63143	6.49	114957	7.84	130013	10.62	123368	12.09
ZZZZZZ	23943	4.06	91767	5.05	58565	6.49	104098	7.84	125497	10.62	120444	12.09
ZZZZZZ	24938	4.06	93557	5.05	58041	6.49	103549	7.84	131734	10.62	128017	12.09
ZZZZZZ	23189	4.06	89187	5.05	57500	6.49	104110	7.84	125011	10.62	120796	12.09
ZZZZZZ	24660	4.06	95198	5.05	62518	6.49	117414	7.84	138267	10.62	134073	12.09
ZZZZZZ	24897	4.06	94646	5.05	62685	6.49	115301	7.84	137466	10.62	131945	12.09
ZZZZZZ	29520	4.06	111178	5.05	72094	6.48	119335	7.84	147502	10.63	142536	12.11
ZZZZZZ	37080	4.06	138130	5.05	86868	6.49	148298	7.84	150908	10.62	133365	12.09
ZZZZZZ	40881	4.06	151463	5.05	92788	6.49	162030	7.84	164568	10.62	143860	12.09
ZZZZZZ	41494	4.06	150409	5.05	92172	6.49	160625	7.84	164560	10.62	150022	12.09
ZZZZZZ	23207	4.06	85765	5.05	54127	6.49	98198	7.84	119051	10.62	116848	12.10
ZZZZZZ	28631	4.06	106203	5.05	67144	6.49	120552	7.84	137985	10.62	138034	12.09
ZZZZZZ	26079	4.06	99901	5.05	64095	6.49	118352	7.84	133115	10.62	134093	12.09

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8

Semivolatile Internal Standard Area Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2953-CC2937	Injection Date:	04/20/13
Lab File ID:	F63200.D	Injection Time:	11:28
Instrument ID:	GCMSF	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 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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
Instrument ID:	GCMSI	Method:	SW846 8270C BY SIM

	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	179692	3.39	460156	4.35	237134	5.75	434209	6.98	344879	9.71	639898	11.10
Upper Limit [a]	359384	3.89	920312	4.85	474268	6.25	868418	7.48	689758	10.21	1279796	11.60
Lower Limit [b]	89846	2.89	230078	3.85	118567	5.25	217105	6.48	172440	9.21	319949	10.60
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
OP32693-MB	139424	3.38	358365	4.35	182528	5.75	318374	6.98	250282	9.70	486696	11.10
OP32693-BS	139690	3.38	355246	4.35	183610	5.75	323862	6.99	256817	9.71	499776	11.10
OP32693-MS	130368	3.38	333129	4.35	171280	5.75	301573	6.98	237538	9.71	463846	11.10
OP32693-MSD	125331	3.38	320948	4.35	165486	5.74	297198	6.98	233451	9.70	451858	11.09
MC19800-9	144481	3.38	377139	4.35	189735	5.74	326402	6.98	266470	9.70	515316	11.09
MC19830-8	131278	3.38	334825	4.35	163915	5.74	287165	6.98	232011	9.70	458538	11.10
ZZZZZZ	122472	3.38	323344	4.35	167074	5.74	292322	6.98	238730	9.70	465652	11.09
OP32682-MB	148798	3.38	379002	4.35	194285	5.74	343460	6.98	278659	9.70	542303	11.09
OP32682-BS	153296	3.39	386293	4.35	198122	5.75	354075	6.99	274577	9.71	521264	11.10
OP32682-MS	155723	3.39	391581	4.35	201115	5.75	357436	6.99	274726	9.71	525274	11.10
OP32682-MSD	146672	3.39	374500	4.35	193256	5.75	346963	6.99	272228	9.71	525153	11.10
MC19800-3	157230	3.38	402876	4.35	203336	5.74	358154	6.98	279045	9.70	551300	11.10
ZZZZZZ	150080	3.38	382672	4.35	196813	5.74	351141	6.98	283440	9.70	565244	11.09
ZZZZZZ	137342	3.39	341792	4.35	173991	5.74	308917	6.98	247995	9.70	490916	11.09
ZZZZZZ	151165	3.39	373443	4.35	189460	5.74	335217	6.98	270943	9.70	532909	11.09
ZZZZZZ	174567	3.39	458604	4.35	224352	5.75	394969	6.98	312619	9.71	602698	11.10
ZZZZZZ	149620	3.39	388888	4.35	201733	5.75	364947	6.98	299036	9.70	580990	11.10
ZZZZZZ	145419	3.39	372209	4.35	193062	5.75	347268	6.98	283829	9.70	562118	11.10
ZZZZZZ	154647	3.39	396581	4.35	200338	5.74	352331	6.98	283827	9.71	546027	11.10
ZZZZZZ	153832	3.38	398126	4.35	203856	5.74	358521	6.98	292968	9.70	571587	11.10
ZZZZZZ	140627	3.38	367318	4.35	183513	5.75	337924	6.98	279273	9.71	547113	11.10
ZZZZZZ	124448	3.38	327531	4.35	173742	5.74	309890	6.98	258582	9.70	503738	11.10
ZZZZZZ	144516	3.38	373750	4.35	192239	5.74	349202	6.98	292199	9.71	574680	11.10
ZZZZZZ	141757	3.38	378382	4.35	196962	5.75	359156	6.98	302709	9.70	592309	11.10
ZZZZZZ	150396	3.39	398302	4.35	206391	5.75	372293	6.98	314997	9.71	621297	11.10
ZZZZZZ	136149	3.39	356418	4.36	185150	5.75	333478	6.99	275713	9.71	529195	11.10
MC19830-1	142746	3.38	376341	4.35	192528	5.75	351934	6.99	292685	9.71	548493	11.11
MC19830-2	152229	3.38	407303	4.35	214602	5.74	380880	6.98	327110	9.71	617058	11.10
MC19830-3	129337	3.39	342167	4.35	182913	5.74	332736	6.98	285283	9.70	558557	11.10

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3075-CC3044	Injection Date:	04/19/13
Lab File ID:	I82719.D	Injection Time:	09:04
Instrument ID:	GCMSI	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 minntes.

7.4.3

Semivolatile Internal Standard Area Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3078-CC3044	Injection Date:	04/25/13
Lab File ID:	I82829.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	201878	3.38	495656	4.35	260023	5.75	475372	6.98	373731	9.71	698102	11.10
Upper Limit [a]	403756	3.88	991312	4.85	520046	6.25	950744	7.48	747462	10.21	1396204	11.60
Lower Limit [b]	100939	2.88	247828	3.85	130012	5.25	237686	6.48	186866	9.21	349051	10.60
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	138465	3.38	339557	4.35	167611	5.74	308742	6.98	256659	9.70	496196	11.10
MC19830-4	110315	3.39	282740	4.35	147816	5.74	259064	6.98	210111	9.70	416568	11.09
MC19830-5	118015	3.39	305887	4.35	161107	5.74	281207	6.98	228028	9.70	452291	11.10
ZZZZZZ	149290	3.38	373278	4.35	191893	5.74	321577	6.98	253868	9.71	488295	11.10
ZZZZZZ	154483	3.38	400775	4.35	200798	5.74	341282	6.98	273701	9.70	522456	11.10
ZZZZZZ	153536	3.38	390417	4.35	196509	5.74	330680	6.98	266158	9.70	508299	11.10
ZZZZZZ	117941	3.38	306610	4.35	154974	5.74	267939	6.98	215440	9.70	419771	11.10
ZZZZZZ	149531	3.38	381789	4.35	187221	5.74	324216	6.98	261573	9.70	508438	11.10
ZZZZZZ	143159	3.38	369167	4.35	188794	5.74	324536	6.98	266545	9.70	512193	11.10
ZZZZZZ	145731	3.38	366875	4.35	185096	5.75	321624	6.98	259558	9.71	484912	11.11
ZZZZZZ	134443	3.38	343797	4.35	176369	5.74	304887	6.99	247309	9.71	463276	11.11
ZZZZZZ	123070	3.38	324319	4.35	167896	5.75	296471	6.99	242276	9.71	459046	11.11
OP32792-BS	149081	3.39	384658	4.35	204907	5.75	373501	6.99	279338	9.71	510384	11.10
OP32792-MS	135841	3.39	348883	4.35	182290	5.75	325164	6.99	233263	9.71	430582	11.10
OP32792-MSD	137585	3.39	359096	4.35	189668	5.75	338334	6.99	245099	9.71	450590	11.10
ZZZZZZ	155352	3.39	407260	4.35	209515	5.74	351696	6.98	255867	9.71	460473	11.10
MC19894-2	133003	3.39	349182	4.35	181484	5.74	315509	6.98	245558	9.71	444438	11.10

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU699-CC623	Injection Date:	04/25/13
Lab File ID:	U13779.D	Injection Time:	09:28
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	87447	2.84	316416	3.81	202550	5.19	388883	6.39	431404	9.05	418866	10.56
Upper Limit [a]	174894	3.34	632832	4.31	405100	5.69	777766	6.89	862808	9.55	837732	11.06
Lower Limit [b]	43724	2.34	158208	3.31	101275	4.69	194442	5.89	215702	8.55	209433	10.06
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
OP32765-MB	98422	2.84	352349	3.80	225144	5.19	403782	6.38	494302	9.03	464395	10.56
OP32765-BS	97649	2.84	354227	3.80	224781	5.19	408645	6.38	484885	9.04	462038	10.56
ZZZZZZ	98168	2.84	362897	3.80	232522	5.19	409871	6.38	494732	9.03	472430	10.55
ZZZZZZ	99122	2.84	362682	3.80	226738	5.19	407477	6.38	500940	9.03	476745	10.55
ZZZZZZ	99410	2.84	365289	3.80	227012	5.19	401386	6.38	485487	9.03	470397	10.55
ZZZZZZ	97389	2.84	355767	3.80	228948	5.19	400530	6.38	477376	9.03	464145	10.55
ZZZZZZ	100351	2.84	366212	3.80	229862	5.19	410236	6.38	485077	9.03	457921	10.56
ZZZZZZ	98687	2.84	364097	3.80	232390	5.19	412725	6.38	490192	9.03	462319	10.55
ZZZZZZ	110124	2.84	395295	3.80	250448	5.19	441131	6.38	505278	9.03	460707	10.55
ZZZZZZ	103056	2.84	373131	3.80	241320	5.19	418266	6.38	480880	9.03	448309	10.56
ZZZZZZ	108561	2.84	397550	3.80	250739	5.19	437975	6.38	495908	9.03	454112	10.56
ZZZZZZ	104038	2.84	374194	3.80	238183	5.19	417238	6.38	482943	9.03	447449	10.56
ZZZZZZ	101489	2.84	367793	3.80	224166	5.19	391918	6.38	449112	9.03	424583	10.56
ZZZZZZ	107784	2.84	390738	3.80	242008	5.19	425082	6.38	486149	9.04	457994	10.56
ZZZZZZ	106618	2.84	390953	3.80	238329	5.19	422222	6.38	469954	9.04	451826	10.58
MC19830-4	99767	2.84	366378	3.80	231935	5.19	401841	6.38	470435	9.03	447798	10.56
MC19830-5	100736	2.84	367453	3.80	230095	5.19	415279	6.38	501349	9.03	462566	10.56
OP32793-MB	109140	2.84	394460	3.80	242650	5.19	422822	6.38	483744	9.03	458263	10.56
OP32793-BS	102459	2.84	359640	3.80	225698	5.19	400222	6.38	441498	9.04	421814	10.56
OP32793-MS	107163	2.84	375903	3.80	234111	5.19	412111	6.38	445767	9.04	435145	10.56
OP32793-MSD	106204	2.84	378162	3.80	240803	5.19	431377	6.38	472751	9.04	446907	10.56
MC20000-6	113599	2.84	420800	3.80	256000	5.19	444395	6.38	487984	9.03	457180	10.56
ZZZZZZ	109315	2.84	394501	3.80	241663	5.19	416974	6.38	468817	9.04	454591	10.56
ZZZZZZ	111729	2.84	406096	3.80	253785	5.19	438753	6.38	486669	9.04	473177	10.56
ZZZZZZ	107077	2.84	391603	3.80	241569	5.19	419171	6.38	472282	9.03	445876	10.56
ZZZZZZ	107584	2.84	399335	3.80	245447	5.19	423954	6.38	483479	9.03	466489	10.56

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.

Semivolatile Internal Standard Area Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSU699-CC623	Injection Date:	04/25/13
Lab File ID:	U13779.D	Injection Time:	09:28
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

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW528-CC505	Injection Date:	04/19/13
Lab File ID:	W11305.D	Injection Time:	08:08
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	118675	3.60	454103	4.58	306752	6.01	540627	7.29	695543	10.15	641220	11.72
Upper Limit [a]	237350	4.10	908206	5.08	613504	6.51	1081254	7.79	1391086	10.65	1282440	12.22
Lower Limit [b]	59338	3.10	227052	4.08	153376	5.51	270314	6.79	347772	9.65	320610	11.22
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
OP32678-MB	101415	3.59	389149	4.58	257625	6.00	471897	7.28	568474	10.14	554717	11.71
OP32678-BS	104425	3.59	392575	4.58	261156	6.00	462576	7.28	563044	10.14	549110	11.71
OP32678-MS	104803	3.59	399200	4.58	267163	6.00	470392	7.28	572487	10.14	559168	11.72
OP32678-MSD	100054	3.59	380220	4.58	254279	6.00	451262	7.28	555686	10.14	541883	11.72
MC19700-23	102037	3.59	383484	4.58	257244	6.00	463276	7.27	568024	10.14	543704	11.72
ZZZZZZ	100526	3.59	386824	4.58	251128	6.00	466239	7.28	547319	10.14	535753	11.71
ZZZZZZ	100056	3.59	376994	4.58	250142	6.00	451432	7.27	542220	10.14	527993	11.71
OP32692-MB	93072	3.59	358558	4.58	237521	6.00	439162	7.27	529447	10.14	506368	11.71
OP32692-BS	101936	3.59	395042	4.58	258022	6.00	459375	7.28	572642	10.14	548470	11.71
OP32692-MS	97555	3.59	375680	4.58	246651	6.00	440520	7.28	538247	10.14	520984	11.71
OP32692-MSD	99085	3.59	378708	4.58	252105	6.00	445237	7.28	544413	10.14	527613	11.71
MC19686-6	94285	3.59	361529	4.58	239473	6.00	433842	7.27	525730	10.14	508665	11.71
MC19830-8	96248	3.59	368979	4.58	246750	6.00	445318	7.27	533934	10.14	520052	11.71
ZZZZZZ	98682	3.59	375299	4.58	245275	6.00	454218	7.28	544996	10.14	526766	11.71
ZZZZZZ	97687	3.59	377597	4.58	249448	6.00	454663	7.27	540430	10.14	533628	11.71
ZZZZZZ	92896	3.59	354587	4.58	235594	6.00	426574	7.27	506987	10.14	502183	11.71
ZZZZZZ	93459	3.59	355322	4.58	234983	6.00	431960	7.27	514067	10.14	503570	11.71

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19830-1	F63196.D	50.0	43.0	96.0	86.0	73.0	50.0
MC19830-2	F63197.D	47.0	31.0	96.0	86.0	84.0	90.0
MC19830-3	F63201.D	51.0	34.0	100.0	93.0	81.0	85.0
MC19830-4	U13795.D	47.0	37.0	85.0	73.0	72.0	65.0
MC19830-4	F63202.D	44.0	45.0	105.0	94.0	85.0	72.0
MC19830-5	U13796.D	42.0	31.0	74.0	69.0	71.0	53.0
MC19830-5	F63203.D	40.0	42.0	102.0	96.0	89.0	69.0
MC19830-8	W11318.D	23.0	18.0	77.0	72.0	68.0	84.0
OP32681-BS	F63171.D	56.0	38.0	97.0	93.0	90.0	90.0
OP32681-MB	F63170.D	53.0	34.0	97.0	92.0	88.0	89.0
OP32681-MS	F63172.D	52.0	35.0	95.0	93.0	91.0	91.0
OP32681-MSD	F63173.D	53.0	35.0	95.0	95.0	92.0	93.0
OP32692-BS	W11314.D	34.0	26.0	86.0	61.0	65.0	99.0
OP32692-MB	W11313.D	27.0	20.0	61.0	53.0	45.0	98.0
OP32692-MS	W11315.D	39.0	34.0	82.0	70.0	72.0	64.0
OP32692-MSD	W11316.D	38.0	30.0	81.0	71.0	75.0	85.0

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19830-1	I82746.D	71.0	66.0	51.0
MC19830-2	I82747.D	73.0	73.0	84.0
MC19830-3	I82748.D	73.0	72.0	82.0
MC19830-4	I82831.D	73.0	73.0	67.0
MC19830-5	I82832.D	73.0	74.0	66.0
MC19830-8	I82725.D	62.0	61.0	69.0
OP32682-BS	I82728.D	80.0	76.0	81.0
OP32682-MB	I82727.D	81.0	78.0	80.0
OP32682-MS	I82729.D	80.0	77.0	80.0
OP32682-MSD	I82730.D	79.0	76.0	82.0
OP32693-BS	I82721.D	56.0	54.0	79.0
OP32693-MB	I82720.D	47.0	40.0	76.0
OP32693-MS	I82722.D	62.0	59.0	53.0
OP32693-MSD	I82723.D	62.0	61.0	69.0

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

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32697-MB	BK23674.D	1	04/18/13	NK	04/17/13	OP32697	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5, MC19830-7, MC19830-8

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)	97%	36-173%
460-00-4	Bromofluorobenzene (S)	102%	36-173%

Blank Spike Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32697-BS	BK23675.D	1	04/18/13	NK	04/17/13	OP32697	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19830-1, MC19830-2, MCI9830-3, MC19830-4, MC19830-5, MC19830-7, MC19830-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.064	90	60-140
106-93-4	1,2-Dibromoethane	0.071	0.078	110	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	36-173%
460-00-4	Bromofluorobenzene (S)	102%	36-173%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32697-MS	BK23676.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
OP32697-MSD	BK23677.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
MC19800-11	BK23678.D	1	04/18/13	NK	04/17/13	OP32697	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19830-1, MC19830-2, MC19830-3, MC19830-4, MC19830-5, MC19830-7, MC19830-8

CAS No.	Compound	MC19800-11 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	0.067	94	0.069	97	3	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.077	108	0.067	94	14	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-11	Limits
460-00-4	Bromofluorobenzene (S)	97%	95%	94%	36-173%
460-00-4	Bromofluorobenzene (S)	101%	102%	100%	36-173%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19830-1	BK23679.D	103.0	102.0
MC19830-2	BK23680.D	96.0	101.0
MC19830-3	BK23681.D	119.0	115.0
MC19830-4	BK23682.D	129.0	113.0
MC19830-5	BK23683.D	146.0	127.0
MC19830-7	BK23685.D	92.0	98.0
MC19830-8	BK23686.D	114.0	113.0
OP32697-BS	BK23675.D	101.0	102.0
OP32697-MB	BK23674.D	97.0	102.0
OP32697-MS	BK23676.D	97.0	101.0
OP32697-MSD	BK23677.D	95.0	102.0

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-ICC833	Injection Date:	04/18/13
Lab File ID:	BK23669.D	Injection Time:	13:39
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23672A.D	04/18/13	14:51	4.45	4.89
OP32697-MB	BK23674.D	04/18/13	15:40	4.45	4.89
OP32697-BS	BK23675.D	04/18/13	16:04	4.45	4.89
OP32697-MS	BK23676.D	04/18/13	16:29	4.45	4.89
OP32697-MSD	BK23677.D	04/18/13	16:52	4.45	4.89
MC19800-11	BK23678.D	04/18/13	17:16	4.45	4.89
MC19830-1	BK23679.D	04/18/13	17:40	4.45	4.88
MC19830-2	BK23680.D	04/18/13	18:04	4.45	4.89
MC19830-3	BK23681.D	04/18/13	18:28	4.45	4.88
MC19830-4	BK23682.D	04/18/13	18:51	4.45	4.88
MC19830-5	BK23683.D	04/18/13	19:15	4.45	4.88

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: MC19830
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/18/13
Lab File ID:	BK23684.D	Injection Time:	19:38
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
MC19830-7	BK23685.D	04/18/13	20:02	4.45	4.89
MC19830-8	BK23686.D	04/18/13	20:25	4.45	4.88
ZZZZZZ	BK23687.D	04/18/13	20:48	4.45	4.88
ZZZZZZ	BK23688.D	04/18/13	21:12	4.45	4.88
ZZZZZZ	BK23689.D	04/18/13	21:36	4.45	4.88
ZZZZZZ	BK23690.D	04/18/13	22:01	4.45	4.89
OP32696-MB	BK23691.D	04/18/13	22:25	4.45	4.89
OP32696-BS	BK23692.D	04/18/13	22:49	4.45	4.89
OP32696-MS	BK23693.D	04/18/13	23:13	4.45	4.89
OP32696-MSD	BK23694.D	04/18/13	23:38	4.45	4.89

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 – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19877

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/17/2013

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

Sample Identification	Sample Identification
P55-ROX-041513	T12-ROX-041513
P114-ROX-041513	TB-ROX-041513-HCL
TB-ROX-041513	

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. The 2-chloroethyl vinyl ether MS/MSD recoveries were outside evaluation criteria in sample P114-ROX-041513. Samples P55-ROX-041513 and T12-ROX-041513 were diluted due to high levels of VOC target analytes. Additionally, the initial calibration verification for acrolein and acetone exceeded 50 percent difference (%D). Continuing calibration verification for benzo[k]fluoranthene and benzo[g,h,i]perylene exceeded 50 percent difference (%D). Professional judgment was used to qualify the common laboratory contaminant acetone in sample P114-ROX-041513. 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 1.8ºC, 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?

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
MSV709-BS/BSD	VOCs	Acetone	**187/178**	5	70-130/25
MSV709-BS/BSD	VOCs	2-Butanone (MEK)	**152/152**	1	70-130/25
MSV709-BS/BSD	VOCs	2-Hexanone	**166/156**	6	70-130/25
MSV709-BS/BSD	VOCs	Naphthalene	128/**132**	2	70-130/25
OP32725-BS	SVOCs	3,3'-Dichlorobenzidine	**9**	NA	40-140
OP32725-BS	SVOCs	Hexachlorocyclopentadiene	**32**	NA	40-140
OP32725-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 MSV709-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
P55-ROX-041513	VOCs	Naphthalene	**J**
T12-ROX-041513	VOCs	Naphthalene	**J**
P55-ROX-041513	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P55-ROX-041513	SVOCs	Hexachlorocyclopentadiene	**UJ**
P55-ROX-041513	SVOCs	Pyridine	**UJ**
T12-ROX-041513	SVOCs	3,3'-Dichlorobenzidine	**UJ**
T12-ROX-041513	SVOCs	Hexachlorocyclopentadiene	**UJ**
T12-ROX-041513	SVOCs	Pyridine	**UJ**
P114-ROX-041513	SVOCs	3,3'-Dichlorobenzidine	**UJ**
P114-ROX-041513	SVOCs	Hexachlorocyclopentadiene	**UJ**
P114-ROX-041513	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 P114-ROX-041513 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
P114-ROX-041513	VOCs	2-Chloroethyl vinyl ether	**0/9**	**200**	70-130/30

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. No further qualification of data was required.

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 also used to qualify the common laboratory contaminant acetone reported at concentrations less than two times (<2X) the reporting limit (RL), since acetone is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
P114-ROX-041513	Acetone	-	**U**	Professional Judgment

Additionally, the initial calibration verification for acrolein and acetone exceeded 50 percent difference (%D). Continuing calibration verification for benzo[k]fluoranthene and benzo[g,h,i]perylene exceeded 50 percent difference (%D). Analytes in associated samples were qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P55-ROX-041513	VOCs	Acetone	**UJ**
P55-ROX-041513	VOCs	Acrolein	**UJ**
T12-ROX-041513	VOCs	Acetone	**UJ**
T12-ROX-041513	VOCs	Acrlolein	**UJ**
P114-ROX-041513	VOCs	Acetone	**UJ**
P114-ROX-041513	VOCs	Acrlolein	**UJ**

Sample ID	Parameter	Analyte	Qualification
P55-ROX-041513	PAHs	Benzo(k)fluoranthene	**UJ**
P55-ROX-041513	PAHs	Benzo(g,h,i)perylene	**UJ**
T12-ROX-041513	PAHs	Benzo(k)fluoranthene	**UJ**
T12-ROX-041513	PAHs	Benzo(g,h,i)perylene	**UJ**
P114-ROX-041513	PAHs	Benzo(k)fluoranthene	**UJ**
P114-ROX-041513	PAHs	Benzo(g,h,i)perylene	**UJ**

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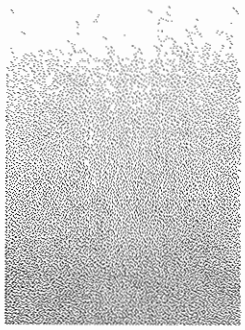
05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19877

Sampling Date: 04/15/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **76**

Reviewed on 5/17/2013

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)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6 7 8

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Sample Summary

Shell Oil

Job No: MC19877

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19877-1	04/15/13	11:05	MMLR	04/16/13	AQ	Ground Water	P55-ROX-041513
MC19877-2	04/15/13	13:04	MMLR	04/16/13	AQ	Ground Water	T12-ROX-041513
MC19877-3	04/15/13	14:20	MMLR	04/16/13	AQ	Ground Water	P114-ROX-041513
MC19877-4	04/15/13	00:00	MMLR	04/16/13	AQ	Trip Blank Water	TB-ROX-041513-HCL
MC19877-5	04/15/13	00:00	MMLR	04/16/13	AQ	Trip Blank Water	TB-ROX-041513-ST

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19877
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	**Report Date**	5/1/2013 9:42:25 AM

3 Sample(s), 2 Trip Blank(s) and 0 Field Blank(s) were collected on 04/15/2013 and were received at Accutest on 04/16/2013 properly preserved, at 1.8 Deg. C and intact. These Samples received an Accutest job number of MC19877. 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:** MSV709

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19877-3MS, MC19877-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- MSV709-BS/BSD for 2-Butanone (MEK), Acetone are outside control limits. Blank Spike meets program technical requirements.
- MC19877-3MS/MSD for 2-Chloroethyl vinyl ether are outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for MC19877-3MSD for 2-Chloroethyl vinyl ether are outside control limits. High RPD due to possible matrix interference and/or sample non-homogeneity.
- MSV709-BS/BSD for 2-Hexanone: Outside control limits. Associated samples are non-detect for this compound.
- MSV709-BSD for Naphthalene are outside control limits. Blank Spike meets program technical requirements.
- Initial calibration verification MSV704-ICV704 for acrolein, acetone exceed 50% Difference. These compounds are within criteria in continuing calibration check MSV709-CC704.

Extractables by GCMS By Method SW846 8270C

Matrix: AQ **Batch ID:** OP32725

- 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) MC19900-3MS, MC19900-3MSD were used as the QC samples indicated.
- OP32725-BS for 3,3'-Dichlorobenzidine, Hexachlorocyclopentadiene, Pyridine are outside control limits. Blank Spike meets program technical requirements.
- OP32725-MSD for Dimethyl phthalate are outside control limits due to possible matrix interference. Refer to Blank Spike.
- RPD(s) for OP32725-MSD for Dimethyl phthalate are outside control limits due to possible matrix interference. Refer to Blank Spike.
- OP32725-MS/MSD for 3,3'-Dichlorobenzidine: Outside control limits. Blank Spike meets program technical requirements.

Extractables by GCMS By Method SW846 8270C BY SIM

Matrix: AQ	Batch ID: OP32726

- 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) MC20000-2MS, MC20000-2MSD were used as the QC samples indicated.
- Continuing calibration check standard MSI3082-CC3044 for Benzo[k]fluoranthene, Benzo[g,h,i]perylene exceed 30% Difference (results biased high). Associated samples are non-deteet for these compounds.

Volatiles by GC By Method SW846 8011

Matrix: AQ	Batch ID: OP32697

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC19800-11MS, MC19800-11MSD were used as the QC samples indicated.
- All method blanks for this batch meet method speeifie criteria.

The Aceutest 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 Aceutest Laboratories of NE. Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC19877).

Summary of Hits

Job Number: MC19877
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/15/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19877-1	P55-ROX-041513					
Benzene		434	1.0	0.48	ug/l	SW846 8260B
n-Butylbenzene		5.2 J	10	1.2	ug/l	SW846 8260B
sec-Butylbenzene		19.6	10	1.1	ug/l	SW846 8260B
Ethylbenzene		350	2.0	1.0	ug/l	SW846 8260B
Isopropylbenzene		68.0	10	1.0	ug/l	SW846 8260B
Naphthalene		97.4	10	1.0	ug/l	SW846 8260B
n-Propylbenzene		148	10	1.2	ug/l	SW846 8260B
Toluene		143	2.0	1.0	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		24.1	10	0.69	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		22.9	10	0.93	ug/l	SW846 8260B
m,p-Xylene		235	2.0	1.5	ug/l	SW846 8260B
o-Xylene		362	2.0	1.2	ug/l	SW846 8260B
Xylene (total)		597	2.0	1.2	ug/l	SW846 8260B
Dibenzofuran		1.7 J	2.1	0.16	ug/l	SW846 8270C
Acenaphthene		0.73	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.21	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		1.3	0.10	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		26.8	0.21	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		38.9	0.21	0.054	ug/l	SW846 8270C BY SIM
Phenanthrene		2.1	0.052	0.013	ug/l	SW846 8270C BY SIM
MC19877-2	T12-ROX-041513					
Benzene		1610	5.0	2.4	ug/l	SW846 8260B
sec-Butylbenzene		59.5	50	5.5	ug/l	SW846 8260B
Ethylbenzene		1030	10	5.1	ug/l	SW846 8260B
Isopropylbenzene		40.5 J	50	5.0	ug/l	SW846 8260B
Naphthalene		266	50	5.0	ug/l	SW846 8260B
n-Propylbenzene		76.0	50	5.8	ug/l	SW846 8260B
Toluene		592	10	5.1	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		309	50	3.5	ug/l	SW846 8260B
m,p-Xylene		1200	10	7.3	ug/l	SW846 8260B
o-Xylene		104	10	5.8	ug/l	SW846 8260B
Xylene (total)		1300	10	5.8	ug/l	SW846 8260B
2-Methylphenol		4.7 J	10	1.3	ug/l	SW846 8270C
3&4-Methylphenol		4.2 J	10	2.1	ug/l	SW846 8270C
Phenol		14.9	5.1	0.52	ug/l	SW846 8270C
Dibenzofuran		0.48 J	2.0	0.16	ug/l	SW846 8270C
Acenaphthene		0.63	0.10	0.014	ug/l	SW846 8270C BY SIM
Acenaphthylene		0.090 J	0.10	0.014	ug/l	SW846 8270C BY SIM
Fluorene		0.37	0.10	0.047	ug/l	SW846 8270C BY SIM
1-Methyluaphthalene		28.9	0.20	0.14	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		44.4	0.20	0.053	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: MC19877
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/15/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Phenanthrene		1.1	0.051	0.013	ug/l	SW846 8270C BY SIM
Pyrene		0.063 J	0.10	0.036	ng/l	SW846 8270C BY SIM
MC19877-3	P114-ROX-041513					
Acetone		5.9 J	10	3.0	ug/l	SW846 8260B
Methyl Tert Butyl Ether		5.1	1.0	0.41	ug/l	SW846 8260B
Di-n-butyl phthalate		0.47 J	5.2	0.40	ug/l	SW846 8270C
bis(2-Ethylhexyl)phthalate		2.3	2.1	0.50	ug/l	SW846 8270C
MC19877-4	TB-ROX-041513-HCL					
No hits reported in this sample.						
MC19877-5	TB-ROX-041513-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P55-ROX-041513		
Lab Sample ID:	MC19877-I	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17975.D	2	04/24/13	AMY	n/a	n/a	MSV709
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	20	6.0	ug/l	
107-02-8	Acrolein	ND	50	20	ug/l	
107-13-1	Acrylonitrile	ND	10	6.5	ug/l	
71-43-2	Benzene	434	1.0	0.48	ug/l	
108-86-1	Bromobenzene	ND	10	1.2	ug/l	
74-97-5	Bromochloromethane	ND	10	2.4	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	5.2	10	1.2	ug/l	J
135-98-8	sec-Butylbenzene	19.6	10	1.1	ug/l	
98-06-6	tert-Butylbenzene	ND	10	1.3	ug/l	
75-15-0	Carbou 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	ND	4.0	1.0	ug/l	
110-75-8	2-Chloroethyl viuyl ether	ND	10	2.5	ug/l	
67-66-3	Chloroforu	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	Dibromochloromethaue	ND	2.0	1.1	ug/l	
95-50-1	1,2-Dichlorohenzene	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-Dichloroetheue	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:	P55-ROX-041513		
Lab Sample ID:	MC19877-1	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South 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	ng/l	
100-41-4	Ethylbenzene	350	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	68.0	10	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	10	1.1	ug/l	
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	97.4	10	1.0	ug/l	J
103-65-1	n-Propylbenzene	148	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	143	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	24.1	10	0.69	ug/l	
108-67-8	1,3,5-Trimethylbenzene	22.9	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	235	2.0	1.5	ug/l	
95-47-6	o-Xylene	362	2.0	1.2	ug/l	
1330-20-7	Xylene (total)	597	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:	P55-ROX-041513		
Lab Sample ID:	MC19877-1	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		70-130%
2037-26-5	Toluene-D8	91%		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:	P55-ROX-041513		
Lab Sample ID:	MC19877-1	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63269.D	1	04/23/13	KR	04/19/13	OP32725	MSF2955
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ng/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.66	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	UJ
132-64-9	Dibenzofuran	1.7	2.1	0.16	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.2	0.40	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	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-041513		
Lab Sample ID:	MC19877-1	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenne, Roxana, IL		

ABN Speeial 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	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.2	0.45	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ug/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.83	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%		15-110%
4165-62-2	Phenol-d5	31%		15-110%
118-79-6	2,4,6-Tribromophenol	95%		15-110%
4165-60-0	Nitrobenzene-d5	95%		30-130%
321-60-8	2-Fluorobiphenyl	85%		30-130%
1718-51-0	Terphenyl-d14	65%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cone.	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-041513		
Lab Sample ID:	MC19877-1	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82901.D	1	04/30/13	NS	04/19/13	OP32726	MSI3082
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	0.73	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.21	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	UJ
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.060	ug/l	UJ
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	1.3	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	26.8	0.21	0.14	ug/l	
91-57-6	2-Methylnaphthalene	38.9	0.21	0.054	ug/l	
85-01-8	Phenanthrene	2.1	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
4165-60-0	Nitrobenzene-d5	77%		30-130%
321-60-8	2-Fluorobiphenyl	75%		30-130%
1718-51-0	Terphenyl-d14	66%		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-041513		
Lab Sample ID:	MC19877-1	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23687.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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)	117%		36-173%
460-00-4	Bromofluorobenzene (S)	119%		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-041513		
Lab Sample ID:	MC19877-2	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17976.D	10	04/24/13	AMY	n/a	n/a	MSV709
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	30	ug/l	
107-02-8	Acrolein	ND	250	100	ug/l	
107-13-1	Acrylonitrile	ND	50	32	ug/l	
71-43-2	Benzene	1610	5.0	2.4	ug/l	
108-86-1	Bromobenzene	ND	50	6.2	ug/l	
74-97-5	Bromochloromethane	ND	50	12	ug/l	
75-27-4	Bromodichloromethane	ND	10	5.8	ug/l	
75-25-2	Bromoform	ND	10	7.8	ug/l	
74-83-9	Bromomethane	ND	20	10	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	24	ug/l	
104-51-8	n-Butylbenzene	ND	50	6.1	ug/l	
135-98-8	sec-Bntylbenzene	59.5	50	5.5	ug/l	
98-06-6	tert-Butylbenzene	ND	50	6.4	ng/l	
75-15-0	Carbon disulfide	ND	50	6.1	ug/l	
56-23-5	Carbon tetrachloride	ND	10	8.7	ug/l	
108-90-7	Chlorobenzene	ND	10	4.7	ug/l	
75-00-3	Chloroethane	ND	20	5.0	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50	13	ug/l	
67-66-3	Chloroform	ND	10	5.0	ug/l	
74-87-3	Chloromethane	ND	20	7.3	ug/l	
95-49-8	o-Chlorotoluene	ND	50	6.5	ng/l	
106-43-4	p-Chlorotoluene	ND	50	4.8	ng/l	
124-48-1	Dibromochloromethane	ND	10	5.3	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	9.3	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	4.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	6.4	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	17	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	6.2	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	6.3	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	4.1	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	10	6.4	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	9.5	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:	T12-ROX-041513		
Lab Sample ID:	MC19877-2	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	20	7.2	ug/l	
142-28-9	1,3-Dichloropropane	ND	50	6.4	ug/l	
594-20-7	2,2-Dichloropropane	ND	50	16	ug/l	
563-58-6	1,1-Dichloropropene	ND	50	9.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	4.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	2.0	ug/l	
123-91-1	1,4-Dioxane	ND	250	150	ug/l	
97-63-2	Ethyl methacrylate	ND	50	8.1	ug/l	
100-41-4	Ethylbenzene	1030	10	5.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	21	ug/l	
591-78-6	2-Hexanone	ND	50	20	ug/l	
98-82-8	Isopropylbenzene	40.5	50	5.0	ug/l	J
99-87-6	p-Isopropyltoluene	ND	50	5.7	ug/l	
1634-04-4	Methyl Tert Bntyl Ether	ND	10	4.1	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	50	29	ug/l	
74-95-3	Methylene bromide	ND	50	11	ug/l	
75-09-2	Methylene chloride	ND	20	8.3	ug/l	
91-20-3	Naphthalene	266	50	5.0	ug/l	J
103-65-1	n-Propylbenzene	76.0	50	5.8	ug/l	
100-42-5	Styrene	ND	50	4.5	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	50	5.7	ng/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	6.0	ug/l	
127-18-4	Tetrachloroethene	ND	10	4.2	ug/l	
108-88-3	Toluene	592	10	5.1	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	13	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	13	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	8.5	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	5.0	ug/l	
79-01-6	Trichloroethene	ND	10	7.8	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.9	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	8.5	ug/l	
95-63-6	1,2,4-Trimethylbenzene	309	50	3.5	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	50	4.7	ug/l	
108-05-4	Vinyl Acetate	ND	50	13	ug/l	
75-01-4	Vinyl chloride	ND	10	6.3	ug/l	
	m,p-Xylene	1200	10	7.3	ug/l	
95-47-6	o-Xylene	104	10	5.8	ug/l	
1330-20-7	Xylene (total)	1300	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:	T12-ROX-041513		
Lab Sample ID:	MC19877-2	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
2037-26-5	Tolnene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	92%		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:	T12-ROX-041513		
Lab Sample ID:	MC19877-2	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63270.D	1	04/23/13	KR	04/19/13	OP32725	MSF2955
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	0.39	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	4.7	10	1.3	ug/l	J
	3&4-Methylphenol	4.2	10	2.1	ug/l	J
88-75-5	2-Nitrophenol	ND	10	0.51	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	14.9	5.1	0.52	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.58	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.65	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.1	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.1	0.87	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.1	0.94	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.1	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.1	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.1	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.1	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.1	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.69	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.65	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.1	0.51	ug/l	U3
132-64-9	Dibenzofuran	0.48	2.0	0.16	ug/l	J
84-74-2	Di-n-butyl phthalate	ND	5.1	0.40	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.1	0.44	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:	T12-ROX-041513		
Lab Sample ID:	MC19877-2	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.51	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.1	0.30	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	UJ
67-72-1	Hexachloroethane	ND	5.1	0.45	ug/l	
78-59-1	Isophorone	ND	5.1	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.51	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.4	ug/l	
98-95-3	Nitrobenzene	ND	5.1	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.1	0.51	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.1	0.82	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.55	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	49%		15-110%
4165-62-2	Phenol-d5	40%		15-110%
118-79-6	2,4,6-Tribromophenol	97%		15-110%
4165-60-0	Nitrobenzene-d5	92%		30-130%
321-60-8	2-Fluorobiphenyl	82%		30-130%
1718-51-0	Terphenyl-d14	49%		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-041513		
Lab Sample ID:	MC19877-2	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Aveuue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82902.D	1	04/30/13	NS	04/19/13	OP32726	MSI3082
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	0.63	0.10	0.014	ug/l	
208-96-8	Acenaphthylene	0.090	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	0.051	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	UJ
207-08-9	Benzo(k)flnoranthene	ND	0.10	0.060	ug/l	UJ
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	0.37	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	28.9	0.20	0.14	ug/l	
91-57-6	2-Methylnaphthalene	44.4	0.20	0.053	ug/l	
85-01-8	Phenanthrene	1.1	0.051	0.013	ug/l	
129-00-0	Pyrene	0.063	0.10	0.036	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	74%		30-130%
321-60-8	2-Fluorobiphenyl	73%		30-130%
1718-51-0	Terphenyl-d14	49%		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-041513		
Lab Sample ID:	MC19877-2	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23688.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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)	140%		36-173%
460-00-4	Bromofluorobenzene (S)	127%		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-041513		
Lab Sample ID:	MC19877-3	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17974.D	1	04/24/13	AMY	n/a	n/a	MSV709
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	~~5.9~~ U	10	3.0	ug/l	J UJ 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	1.2	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	ng/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	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	P114-ROX-041513		
Lab Sample ID:	MC19877-3	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	5.1	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	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	

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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-041513		
Lab Sample ID:	MC19877-3	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	91%		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:	P114-ROX-041513		
Lab Sample ID:	MC19877-3	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63271.D	1	04/23/13	KR	04/19/13	OP32725	MSF2955
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	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
62-53-3	Aniline	ND	10	0.66	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.2	0.21	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.59	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.2	0.95	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.2	0.22	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.2	0.24	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.2	0.14	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.2	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.2	0.67	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.70	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.66	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.2	0.52	ug/l	
132-64-9	Dibenzofuran	ND	2.1	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	0.47	5.2	0.40	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	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-041513		
Lab Sample ID:	MC19877-3	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	2.3	2.1	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.2	0.31	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	2.6	ug/l	J
67-72-1	Hexachloroethane	ND	5.2	0.45	ug/l	
78-59-1	Isophorone	ND	5.2	0.21	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.29	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.52	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.5	ng/l	
98-95-3	Nitrobenzene	ND	5.2	0.26	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.2	0.52	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.2	0.83	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.56	ug/l	
110-86-1	Pyridine	ND	10	0.53	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		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	80%		30-130%
321-60-8	2-Fluorobiphenyl	67%		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:	P114-ROX-041513		
Lab Sample ID:	MC19877-3	Date Sampled:	04/15/13
Matrix:	AQ - Ground Water	Date Received:	04/16/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I82903.D	1	04/30/13	NS	04/19/13	OP32726	MSI3082
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	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	0.052	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	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	ND	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
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	62%		30-130%
1718-51-0	Terphenyl-d14	47%		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:	P114-ROX-041513		
Lab Sample ID:	MC19877-3	Date Sampled:	04/15/13
Matrix:	AQ - Grouud Water	Date Received:	04/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23689.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
Run #2							

	Initial Volume	Final Volume
Run #1	34.6 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	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	115%		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

Report of Analysis

Client Sample ID:	TB-ROX-041513-HCL		
Lab Sample ID:	MC19877-4	Date Sampled:	04/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17973.D	1	04/24/13	AMY	n/a	n/a	MSV709
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	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	1.2	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-041513-HCL		
Lab Sample ID:	MC19877-4	Date Sampled:	04/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/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	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	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	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-041513-HCL		
Lab Sample ID:	MC19877-4	Date Sampled:	04/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/13
Method:	SW846 8260B	Percent Solids:	n/a
Projeet:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		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 evideuce of a compound

Report of Analysis

Client Sample ID:	TB-ROX-041513-ST		
Lab Sample ID:	MC19877-5	Date Sampled:	04/15/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/16/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BK23690.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
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)	115%		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

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 (508.481.6200))
☐ Lab Vendor # (_____)
☐ SPL (_____)
Lab Vendor #

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☑ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
☐ MOTIVA SOHO ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Billman
PO. #
INCIDENT # (ENV SERVICES): 9 7 2 1 8 6 4 0
SAP #: 3 4 0 0 8 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4-15-13
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): Bob Billman and Elizabeth Kunkel
TELEPHONE: 314-429-0100
FAX: 314-429-0402
e-mail: bob.billman@urs.com elizabeth.kunkel@urs.com

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 / 21562850.03002
SAMPLED BY (Print): M.Wanstall, L.Rathbone
LAB USE ONLY: MC19877

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKENDS

☐ 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 ON DISK

REQUESTED ANALYSIS

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	P55-ROX-041513	4/15/13	1105		2			2	2	6	X	X	X	X	0	
2	T12-ROX-041513		1309		2			2	2	6	X	X	X	X		
3	P114-ROX-041513		1420		2			2	2	6	X	X	X	X		
4	TB-ROX-0415B-HCL		0000		2					2	X					
5	TB-ROX-0415B-ST	↓	0000						2	2		X			↓	
																16C, 562

Relinquished by (Signature): M.Wanstall
Received by (Signature): FED EX
Date: 4-15-13 Time: 1700

Relinquished by (Signature): FEDX
Received by (Signature): [signature]
Date: 4-16-13 Time: 930

Relinquished by (Signature):
Received by (Signature):
Date: Time:

05/2008 Revision

1.8°C

MC19877: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19877 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/16/2013 **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 ,Preservation	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

MC19877: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19877

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

5.2

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19877-1 Collected: 15-APR-13 11:05 By: MMLR Received: 16-APR-13 By: P55-ROX-041513						
MC19877-1	SW846 8011	18-APR-13 20:48	NK	17-APR-13	BJ	V8011SL
MC19877-1	SW846 8270C	23-APR-13 08:49	KR	19-APR-13	CA	AB8270SL+
MC19877-1	SW846 8260B	24-APR-13 16:15	AMY			V8260SL+
MC19877-1	SW846 8270C BY SIM	30-APR-13 10:04	NS	19-APR-13	BJ	B8270SIMSL
MC19877-2 Collected: 15-APR-13 13:04 By: MMLR Received: 16-APR-13 By: T12-ROX-041513						
MC19877-2	SW846 8011	18-APR-13 21:12	NK	17-APR-13	BJ	V8011SL
MC19877-2	SW846 8270C	23-APR-13 09:13	KR	19-APR-13	CA	AB8270SL+
MC19877-2	SW846 8260B	24-APR-13 16:42	AMY			V8260SL+
MC19877-2	SW846 8270C BY SIM	30-APR-13 10:27	NS	19-APR-13	BJ	B8270SIMSL
MC19877-3 Collected: 15-APR-13 14:20 By: MMLR Received: 16-APR-13 By: P114-ROX-041513						
MC19877-3	SW846 8011	18-APR-13 21:36	NK	17-APR-13	BJ	V8011SL
MC19877-3	SW846 8270C	23-APR-13 09:36	KR	19-APR-13	CA	AB8270SL+
MC19877-3	SW846 8260B	24-APR-13 15:49	AMY			V8260SL+
MC19877-3	SW846 8270C BY SIM	30-APR-13 10:50	NS	19-APR-13	BJ	B8270SIMSL
MC19877-4 Collected: 15-APR-13 00:00 By: MMLR Received: 16-APR-13 By: TB-ROX-041513-HCL						
MC19877-4	SW846 8260B	24-APR-13 15:22	AMY			V8260SL+
MC19877-5 Collected: 15-APR-13 00:00 By: MMLR Received: 16-APR-13 By: TB-ROX-041513-ST						
MC19877-5	SW846 8011	18-APR-13 22:01	NK	17-APR-13	BJ	V8011SL

Accutest Internal Chain of Custody

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/16/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19877-1.1	Walk In Ref #22	Michael Rolo	04/19/13 07:13	Retrieve from Storage
MC19877-1.1	Michael Rolo		04/22/13 07:34	Depleted
MC19877-1.4	VOC Ref #5	Amy Min Yang	04/24/13 14:00	Retrieve from Storage
MC19877-1.4	Amy Min Yang	GCMSV	04/24/13 14:00	Load on Instrument
MC19877-1.4	GCMSV	Amy Min Yang	04/25/13 15:30	Unload from Instrument
MC19877-1.4	Amy Min Yang	VOC Ref #5	04/25/13 15:30	Return to Storage
MC19877-1.6	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19877-1.6	Bijan Jafari		04/20/13 08:36	Depleted
MC19877-2.2	Walk In Ref #22	Michael Rolo	04/19/13 07:13	Retrieve from Storage
MC19877-2.2	Michael Rolo		04/22/13 07:34	Depleted
MC19877-2.3	VOC Ref #5	Amy Min Yang	04/24/13 14:00	Retrieve from Storage
MC19877-2.3	Amy Min Yang	GCMSV	04/24/13 14:00	Load on Instrument
MC19877-2.3	GCMSV	Amy Min Yang	04/25/13 15:30	Unload from Instrument
MC19877-2.3	Amy Min Yang	VOC Ref #5	04/25/13 15:30	Return to Storage
MC19877-2.6	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19877-2.6	Bijan Jafari		04/20/13 08:36	Depleted
MC19877-3.1	Walk In Ref #22	Michael Rolo	04/19/13 07:13	Retrieve from Storage
MC19877-3.1	Michael Rolo		04/22/13 07:34	Depleted
MC19877-3.3	VOC Ref #5	Amy Min Yang	04/24/13 16:19	Retrieve from Storage
MC19877-3.3	Amy Min Yang	GCMSV	04/24/13 16:19	Load on Instrument
MC19877-3.3	GCMSV	Amy Min Yang	04/25/13 15:30	Unload from Instrument
MC19877-3.3	Amy Min Yang	VOC Ref #5	04/25/13 15:30	Return to Storage
MC19877-3.4	VOC Ref #5	Amy Min Yang	04/24/13 14:00	Retrieve from Storage
MC19877-3.4	Amy Min Yang	GCMSV	04/24/13 14:00	Load on Instrument
MC19877-3.4	GCMSV	Amy Min Yang	04/25/13 15:30	Unload from Instrument
MC19877-3.4	Amy Min Yang	VOC Ref #5	04/25/13 15:30	Return to Storage
MC19877-3.6	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage
MC19877-3.6	Bijan Jafari		04/20/13 08:36	Depleted
MC19877-4.1	VOC Ref #5	Amy Min Yang	04/24/13 14:00	Retrieve from Storage
MC19877-4.1	Amy Min Yang	GCMSV	04/24/13 14:00	Load on Instrument
MC19877-4.1	GCMSV	Amy Min Yang	04/25/13 15:30	Unload from Instrument
MC19877-4.1	Amy Min Yang	VOC Ref #5	04/25/13 15:30	Return to Storage
MC19877-5.1	VOC Ref #5	Bijan Jafari	04/17/13 16:49	Retrieve from Storage

Accutest Internal Chain of Custody

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/16/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19877-5.1	Bijan Jafari		04/20/13 08:36	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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-MB	V17972.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	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	1.2	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-Bntylbeuzene	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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-MB	V17972.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

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	n-Propylbenzeue	ND	5.0	0.58	ug/l	
100-42-5	Styreue	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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-MB	V17972.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	84%	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	

6.1.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-BS	V17968.D	1	04/24/13	AMY	n/a	n/a	MSV709
MSV709-BSD	V17969.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	93.6	187* a	89.1	178* a	5	70-130/25
107-02-8	Acrolein	250	200	80	177	71	12	70-130/25
107-13-1	Acrylonitrile	50	54.5	109	52.5	105	4	70-130/25
71-43-2	Benzene	50	50.3	101	48.7	97	3	70-130/25
108-86-1	Bromobenzene	50	54.6	109	54.1	108	1	70-130/25
74-97-5	Bromochloromethane	50	52.3	105	51.4	103	2	70-130/25
75-27-4	Bromodichloromethane	50	50.0	100	48.7	97	3	70-130/25
75-25-2	Bromoform	50	49.5	99	48.8	98	1	70-130/25
74-83-9	Bromomethane	50	53.7	107	51.3	103	5	70-130/25
78-93-3	2-Butanone (MEK)	50	76.2	152* a	75.8	152* a	1	70-130/25
104-51-8	n-Bntylbenzene	50	49.8	100	48.9	98	2	70-130/25
135-98-8	sec-Butylbenzene	50	46.8	94	46.2	92	1	70-130/25
98-06-6	tert-Butylbenzene	50	52.2	104	51.6	103	1	70-130/25
75-15-0	Carbon disulfide	50	44.4	89	42.8	86	4	70-130/25
56-23-5	Carbon tetrachloride	50	48.8	98	47.1	94	4	70-130/25
108-90-7	Chlorobenzene	50	50.7	101	49.6	99	2	70-130/25
75-00-3	Chloroetbane	50	56.6	113	52.8	106	7	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	51.7	103	50.7	101	2	70-130/25
67-66-3	Chloroform	50	50.6	101	49.3	99	3	70-130/25
74-87-3	Chloromethane	50	53.8	108	52.5	105	2	70-130/25
95-49-8	o-Chlorotolnene	50	51.1	102	50.3	101	2	70-130/25
106-43-4	p-Chlorotoluene	50	52.9	106	52.3	105	1	70-130/25
124-48-1	Dibromochloromethane	50	50.1	100	49.4	99	1	70-130/25
95-50-1	1,2-Dichlorobenzene	50	52.5	105	51.8	104	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	51.5	103	51.1	102	1	70-130/25
106-46-7	1,4-Dichlorobenzene	50	52.9	106	51.9	104	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	46.6	93	45.3	91	3	70-130/25
75-34-3	1,1-Dichloroethane	50	50.2	100	44.5	89	12	70-130/25
107-06-2	1,2-Dichloroethane	50	53.9	108	52.5	105	3	70-130/25
75-35-4	1,1-Dichloroethene	50	49.7	99	47.7	95	4	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	50.4	101	49.3	99	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	50.1	100	48.5	97	3	70-130/25
78-87-5	1,2-Dichloropropane	50	52.7	105	51.7	103	2	70-130/25
142-28-9	1,3-Dichloropropane	50	55.5	111	54.5	109	2	70-130/25
594-20-7	2,2-Dichloropropane	50	54.4	109	52.5	105	4	70-130/25
563-58-6	1,1-Dichloropropene	50	56.1	112	53.8	108	4	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-BS	V17968.D	1	04/24/13	AMY	n/a	n/a	MSV709
MSV709-BSD	V17969.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

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	49.7	99	48.9	98	2	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	53.8	108	52.5	105	2	70-130/25
123-91-1	1,4-Dioxane	250	306	122	300	120	2	70-130/25
97-63-2	Ethyl methacrylate	50	54.6	109	53.4	107	2	77-137/25
100-41-4	Ethylbenzene	50	56.0	112	54.8	110	2	70-130/25
87-68-3	Hexachlorobutadiene	50	51.2	102	50.9	102	1	70-130/25
591-78-6	2-Hexanone	50	83.0	166* b	78.2	156* b	6	70-130/25
98-82-8	Isopropylbenzene	50	55.8	112	55.0	110	1	70-130/25
99-87-6	p-Isopropyltoluene	50	51.9	104	51.2	102	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	49.5	99	49.3	99	0	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	59.7	119	57.8	116	3	70-130/25
74-95-3	Methylene bromide	50	55.3	111	54.4	109	2	70-130/25
75-09-2	Methylene chloride	50	49.1	98	47.7	95	3	70-130/25
91-20-3	Naphthalene	50	64.2	128	65.8	132* a	2	70-130/25
103-65-1	n-Propylbenzene	50	56.0	112	55.3	111	1	70-130/25
100-42-5	Styrene	50	55.7	111	54.6	109	2	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	51.3	103	50.4	101	2	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	63.4	127	63.4	127	0	70-130/25
127-18-4	Tetrachloroethene	50	51.2	102	49.6	99	3	70-130/25
108-88-3	Toluene	50	55.0	110	53.3	107	3	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	61.6	123	63.0	126	2	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	55.3	111	56.0	112	1	70-130/25
71-55-6	1,1,1-Trichloroethane	50	47.7	95	46.1	92	3	70-130/25
79-00-5	1,1,2-Trichloroethane	50	55.8	112	55.0	110	1	70-130/25
79-01-6	Trichloroethene	50	50.5	101	49.2	98	3	70-130/25
75-69-4	Trichlorofluoromethane	50	48.3	97	45.6	91	6	70-130/25
96-18-4	1,2,3-Trichloropropane	50	55.9	112	55.3	111	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	55.8	112	55.5	111	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	50.7	101	50.1	100	1	70-130/25
108-05-4	Vinyl Acetate	50	56.5	113	53.3	107	6	70-130/25
75-01-4	Vinyl chloride	50	47.3	95	45.0	90	5	70-130/25
	m,p-Xylene	100	111	111	108	108	3	70-130/25
95-47-6	o-Xylene	50	54.8	110	53.8	108	2	70-130/25
1330-20-7	Xylene (total)	150	166	111	162	108	2	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV709-BS	V17968.D	1	04/24/13	AMY	n/a	n/a	MSV709
MSV709-BSD	V17969.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	86%	86%	70-130%
2037-26-5	Toluene-D8	92%	91%	70-130%
460-00-4	4-Bromofluorobenzene	91%	92%	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.

6.2.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19877-3MS	V17983.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3MSD	V17984.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3	V17974.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

CAS No.	Compound	MC19877-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	5.9	J	250	269	105	255	100	5	70-130/30
107-02-8	Acrolein	ND		1250	1570	126	1520	122	3	70-130/30
107-13-1	Acrylonitrile	ND		250	265	106	252	101	5	70-130/30
71-43-2	Benzene	ND		250	250	100	238	95	5	70-130/30
108-86-1	Bromobenzene	ND		250	269	108	261	104	3	70-130/30
74-97-5	Bromochloromethane	ND		250	262	105	250	100	5	70-130/30
75-27-4	Bromodichloromethane	ND		250	242	97	232	93	4	70-130/30
75-25-2	Bromoform	ND		250	238	95	232	93	3	70-130/30
74-83-9	Bromomethane	ND		250	257	103	251	100	2	70-130/30
78-93-3	2-Butanone (MEK)	ND		250	290	116	276	110	5	70-130/30
104-51-8	n-Butylbenzene	ND		250	231	92	222	89	4	70-130/30
135-98-8	sec-Butylbenzene	ND		250	223	89	218	87	2	70-130/30
98-06-6	tert-Butylbenzene	ND		250	258	103	241	96	7	70-130/30
75-15-0	Carbon disulfide	ND		250	226	90	219	88	3	70-130/30
56-23-5	Carbon tetrachloride	ND		250	237	95	226	90	5	70-130/30
108-90-7	Chlorobenzene	ND		250	252	101	241	96	4	70-130/30
75-00-3	Chloroethane	ND		250	267	107	263	105	2	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		250	ND	0* a	23.2	9* a	200* b	70-130/30
67-66-3	Chloroform	ND		250	249	100	238	95	5	70-130/30
74-87-3	Chloromethane	ND		250	261	104	250	100	4	70-130/30
95-49-8	o-Chlorotoluene	ND		250	249	100	240	96	4	70-130/30
106-43-4	p-Chlorotoluene	ND		250	257	103	245	98	5	70-130/30
124-48-1	Dibromochloromethane	ND		250	243	97	238	95	2	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		250	252	101	245	98	3	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		250	250	100	243	97	3	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		250	256	102	248	99	3	70-130/30
75-71-8	Dichlorodifluoromethane	ND		250	228	91	219	88	4	70-130/30
75-34-3	1,1-Dichloroethane	ND		250	258	103	247	99	4	70-130/30
107-06-2	1,2-Dichloroethane	ND		250	258	103	246	98	5	70-130/30
75-35-4	1,1-Dichloroethene	ND		250	255	102	246	98	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		250	250	100	243	97	3	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		250	256	102	246	98	4	70-130/30
78-87-5	1,2-Dichloropropane	ND		250	259	104	247	99	5	70-130/30
142-28-9	1,3-Dichloropropane	ND		250	276	110	265	106	4	70-130/30
594-20-7	2,2-Dichloropropane	ND		250	253	101	242	97	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		250	274	110	259	104	6	70-130/30

* = Outside of Control Limits.

6.3.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19877-3MS	V17983.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3MSD	V17984.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3	V17974.D	1	04/24/13	AMY	n/a	n/a	MSV709

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

CAS No.	Compound	MC19877-3 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		250	237	95	225	90	5	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		250	261	104	248	99	5	70-130/30
123-91-1	1,4-Dioxane	ND		1250	1390	111	1310	105	6	70-130/30
97-63-2	Ethyl methacrylate	ND		250	275	110	261	104	5	72-139/30
100-41-4	Ethylbenzene	ND		250	280	112	267	107	5	70-130/30
87-68-3	Hexachlorobutadiene	ND		250	224	90	234	94	4	70-130/30
591-78-6	2-Hexanone	ND		250	296	118	282	113	5	70-130/30
98-82-8	Isopropylbenzene	ND		250	274	110	263	105	4	70-130/30
99-87-6	p-Isopropyltoluene	ND		250	248	99	239	96	4	70-130/30
1634-04-4	Methyl Tert Butyl Ether	5.1		250	261	102	251	98	4	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		250	290	116	275	110	5	70-130/30
74-95-3	Methylene bromide	ND		250	275	110	259	104	6	70-130/30
75-09-2	Methylene chloride	ND		250	252	101	240	96	5	70-130/30
91-20-3	Naphthalene	ND		250	317	127	318	127	0	70-130/30
103-65-1	n-Propylbenzene	ND		250	270	108	260	104	4	70-130/30
100-42-5	Styrene	ND		250	275	110	264	106	4	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		250	254	102	244	98	4	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		250	312	125	302	121	3	70-130/30
127-18-4	Tetrachloroethene	ND		250	255	102	245	98	4	70-130/30
108-88-3	Tolnene	ND		250	269	108	257	103	5	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		250	247	99	288	115	15	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		250	246	98	262	105	6	70-130/30
71-55-6	1,1,1-Trichloroetbane	ND		250	235	94	225	90	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		250	276	110	262	105	5	70-130/30
79-01-6	Trichloroethene	ND		250	247	99	236	94	5	70-130/30
75-69-4	Trichlorofluoromethane	ND		250	227	91	220	88	3	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		250	265	106	257	103	3	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		250	278	111	262	105	6	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		250	246	98	234	94	5	70-130/30
108-05-4	Vinyl Acetate	ND		250	275	110	264	106	4	70-130/30
75-01-4	Vinyl chloride	ND		250	222	89	218	87	2	70-130/30
	m,p-Xylene	ND		500	556	111	527	105	5	70-130/30
95-47-6	o-Xylene	ND		250	274	110	263	105	4	70-130/30
1330-20-7	Xylene (total)	ND		750	830	111	791	105	5	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19877-3MS	V17983.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3MSD	V17984.D	5	04/24/13	AMY	n/a	n/a	MSV709
MC19877-3	V17974.D	1	04/24/13	AMY	n/a	n/a	MSV709

The QC reported here applies to the following samples: Method: SW846 8260B

MC19877-1, MC19877-2, MC19877-3, MC19877-4

CAS No.	Surrogate Recoveries	MS	MSD	MC19877-3	Limits
1868-53-7	Dibromofluoromethane	85%	86%	87%	70-130%
2037-26-5	Toluene-D8	91%	90%	91%	70-130%
460-00-4	4-Bromofluorobenzene	91%	92%	93%	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.

6.3.1

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV709-CC704	Injection Date:	04/24/13
Lab File ID:	V17967.D	Injection Time:	12:43
Instrument ID:	GCMSV	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	796689	6.57	1246182	7.75	579737	11.09	647871	13.30	147193	3.52
Upper Limit [a]	1593378	7.07	2492364	8.25	1159474	11.59	1295742	13.80	294386	4.02
Lower Limit [b]	398345	6.07	623091	7.25	289869	10.59	323936	12.80	73597	3.02
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV709-BS	805628	6.57	1258154	7.75	586918	11.09	660280	13.30	149960	3.51
MSV709-BSD	814645	6.57	1280128	7.75	593957	11.09	658067	13.30	149886	3.51
MSV709-MB	773345	6.58	1233538	7.76	573291	11.09	632932	13.30	153391	3.52
MC19877-4	761614	6.58	1220735	7.76	564577	11.09	622909	13.30	148120	3.52
MC19877-3	790550	6.58	1290544	7.76	608056	11.09	682479	13.30	158483	3.52
MC19877-1	780378	6.58	1221899	7.76	578007	11.09	640236	13.30	169932	3.53
MC19877-2	804092	6.57	1254906	7.75	580900	11.09	647057	13.30	176928	3.51
ZZZZZZ	788545	6.57	1277121	7.75	588780	11.09	658310	13.30	639106[c]	3.51
ZZZZZZ	794637	6.58	1254474	7.76	589979	11.09	655979	13.30	218630	3.53
ZZZZZZ	799810	6.58	1269977	7.76	578154	11.09	641796	13.30	160036	3.52
ZZZZZZ	773447	6.58	1228403	7.76	570872	11.09	625536	13.30	166808	3.52
ZZZZZZ	790208	6.57	1246515	7.75	581559	11.09	634983	13.30	172630	3.52
ZZZZZZ	863248	6.58	1354351	7.76	629359	11.09	685739	13.30	179917	3.52
MC19877-3MS	841147	6.58	1321321	7.76	607543	11.09	685956	13.30	172624	3.52
MC19877-3MSD	862846	6.58	1370067	7.75	625301	11.09	707021	13.30	170413	3.52
ZZZZZZ	899811	6.57	1428328	7.75	661742	11.09	742101	13.30	166270	3.51
ZZZZZZ	831677	6.57	1323970	7.75	604687	11.09	681553	13.30	150741	3.51
ZZZZZZ	776130	6.57	1225834	7.75	565409	11.09	626173	13.30	132839	3.51
ZZZZZZ	813566	6.57	1281153	7.75	590502	11.09	659608	13.30	127207	3.51
ZZZZZZ	802007	6.57	1274527	7.75	588530	11.09	664155	13.30	127747	3.51
ZZZZZZ	785913	6.57	1237047	7.75	573088	11.09	643864	13.30	122273	3.51
ZZZZZZ	773459	6.57	1240730	7.75	576138	11.08	658068	13.30	123209	3.50
ZZZZZZ	752218	6.57	1194630	7.75	558466	11.09	627777	13.30	117421	3.51

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.

6.4.1

Volatile Surrogate Recovery Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19877-1	V17975.D	83.0	91.0	91.0
MC19877-2	V17976.D	82.0	91.0	92.0
MC19877-3	V17974.D	87.0	91.0	93.0
MC19877-4	V17973.D	85.0	90.0	91.0
MC19877-3MS	V17983.D	85.0	91.0	91.0
MC19877-3MSD	V17984.D	86.0	90.0	92.0
MSV709-BS	V17968.D	86.0	92.0	91.0
MSV709-BSD	V17969.D	86.0	91.0	92.0
MSV709-MB	V17972.D	84.0	90.0	91.0

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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32725-MB	W11361.D	1	04/20/13	KR	04/19/13	OP32725	MSW530

The QC reported here applies to the following samples: Method: SW846 8270C

MC19877-1, MC19877-2, MC19877-3

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	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ng/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroauiline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32725-MB	W11361.D	1	04/20/13	KR	04/19/13	OP32725	MSW530

The QC reported here applies to the following samples: Method: SW846 8270C

MC19877-1, MC19877-2, MC19877-3

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	43%	15-110%
4165-62-2	Phenol-d5	27%	15-110%
118-79-6	2,4,6-Tribromophenol	68%	15-110%
4165-60-0	Nitrobenzene-d5	67%	30-130%
321-60-8	2-Fluorobiphenyl	62%	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	

Method Blank Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Bateh
OP32726-MB	I82768.D	1	04/20/13	KR	04/19/13	OP32726	MSI3076

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19877-1, MC19877-2, MC19877-3

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)flnoranthene	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	55%	30-130%
1718-51-0	Terphenyl-d14	64%	30-130%

Blank Spike Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32725-BS	W11362.D	1	04/20/13	KR	04/19/13	OP32725	MSW530

The QC reported here applies to the following samples: Method: SW846 8270C

MC19877-1, MC19877-2, MC19877-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	44.7	45	30-130
95-57-8	2-Chlorophenol	100	98.4	98	30-130
59-50-7	4-Chloro-3-methyl phenol	100	101	101	30-130
120-83-2	2,4-Dichlorophenol	100	110	110	30-130
105-67-9	2,4-Dimethylphenol	100	97.3	97	30-130
51-28-5	2,4-Dinitrophenol	100	108	108	30-130
534-52-1	4,6-Dinitro-o-cresol	100	109	109	30-130
95-48-7	2-Methylphenol	100	84.7	85	30-130
	3&4-Methylphenol	200	161	81	30-130
88-75-5	2-Nitrophenol	100	112	112	30-130
100-02-7	4-Nitrophenol	100	56.6	57	30-130
87-86-5	Pentachlorophenol	100	109	109	30-130
108-95-2	Phenol	100	43.3	43	30-130
95-95-4	2,4,5-Trichlorophenol	100	110	110	30-130
88-06-2	2,4,6-Trichlorophenol	100	113	113	30-130
62-53-3	Aniline	50	21.9	44	40-140
101-55-3	4-Bromophenyl phenyl ether	50	33.6	67	40-140
85-68-7	Butyl benzyl phthalate	50	33.9	68	40-140
100-51-6	Benzyl Alcohol	50	29.9	60	40-140
91-58-7	2-Chloronaphthalene	100	68.1	68	40-140
106-47-8	4-Chloroaniline	50	28.3	57	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	34.3	69	40-140
111-44-4	bis(2-Chloroethyl)ether	50	39.6	79	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	38.5	77	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	33.6	67	40-140
122-66-7	1,2-Diphenylhydrazine	50	38.8	78	40-140
121-14-2	2,4-Dinitrotoluene	100	69.5	70	40-140
606-20-2	2,6-Dinitrotoluene	100	69.3	69	40-140
91-94-1	3,3'-Dichlorobenzidine	50	4.6	9* a	40-140
132-64-9	Dibenzofuran	50	33.2	66	40-140
84-74-2	Di-n-butyl phthalate	50	33.3	67	40-140
117-84-0	Di-n-octyl phthalate	50	41.9	84	40-140
84-66-2	Diethyl phthalate	50	29.5	59	40-140
131-11-3	Dimethyl phthalate	50	21.2	42	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	38.9	78	40-140
118-74-1	Hexachlorobenzene	100	73.2	73	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Ceutral Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32725-BS	W11362.D	1	04/20/13	KR	04/19/13	OP32725	MSW530

The QC reported here applies to the following samples: Method: SW846 8270C

MC19877-1, MC19877-2, MC19877-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	100	31.9	32* a	40-140
67-72-1	Hexachloroethane	100	49.7	50	40-140
78-59-1	Isophorone	100	74.0	74	40-140
88-74-4	2-Nitroaniline	50	35.4	71	40-140
99-09-2	3-Nitroaniline	50	25.4	51	40-140
100-01-6	4-Nitroaniline	50	32.3	65	40-140
98-95-3	Nitrobenzene	100	66.6	67	40-140
62-75-9	n-Nitrosodimethylamine	50	23.8	48	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	35.0	70	40-140
86-30-6	N-Nitrosodiphenylamine	50	35.7	71	40-140
110-86-1	Pyridine	50	19.2	38* a	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	53%	15-110%
4165-62-2	Phenol-d5	35%	15-110%
118-79-6	2,4,6-Tribromophenol	80%	15-110%
4165-60-0	Nitrobenzene-d5	74%	30-130%
321-60-8	2-Fluorobiphenyl	72%	30-130%
1718-51-0	Terphenyl-d14	87%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32726-BS	I82769.D	1	04/20/13	KR	04/19/13	OP32726	MSI3076

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19877-1, MC19877-2, MC19877-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	31.1	62	40-140
208-96-8	Acenaphthylene	50	24.1	48	40-140
120-12-7	Anthracene	50	32.7	65	40-140
56-55-3	Benzo(a)anthracene	50	35.8	72	40-140
50-32-8	Benzo(a)pyrene	50	31.5	63	40-140
205-99-2	Benzo(b)fluoranthene	50	33.9	68	40-140
191-24-2	Benzo(g,h,i)perylene	50	39.1	78	40-140
207-08-9	Benzo(k)fluoranthene	50	35.9	72	40-140
218-01-9	Chrysene	50	33.8	68	40-140
53-70-3	Dibenzo(a,h)anthracene	50	34.6	69	40-140
206-44-0	Fluoranthene	50	34.4	69	40-140
86-73-7	Fluorene	50	29.9	60	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	34.0	68	40-140
90-12-0	1-Methylnaphthalene	50	30.3	61	40-140
91-57-6	2-Methylnaphthalene	50	30.4	61	40-140
85-01-8	Phenanthrene	50	33.2	66	40-140
129-00-0	Pyrene	50	34.1	68	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	64%	30-130%
321-60-8	2-Fluorobiphenyl	58%	30-130%
1718-51-0	Terphenyl-d14	72%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32725-MS	W11363.D	1	04/20/13	KR	04/19/13	OP32725	MSW530
OP32725-MSD	W11364.D	1	04/20/13	KR	04/19/13	OP32725	MSW530
MC19900-3	W11365.D	1	04/20/13	KR	04/19/13	OP32725	MSW530

The QC reported here applies to the following samples: Method: SW846 8270C

MC19877-1, MC19877-2, MC19877-3

CAS No.	Compound	MC19900-3 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	51.5	52	53.4	53	4	30-130/20
95-57-8	2-Chlorophenol	ND		100	109	109	109	109	0	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		100	113	113	113	113	0	30-130/20
120-83-2	2,4-Dichlorophenol	ND		100	124	124	122	122	2	30-130/20
105-67-9	2,4-Dimethylphenol	ND		100	111	111	111	111	0	30-130/20
51-28-5	2,4-Dinitrophenol	ND		100	124	124	124	124	0	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		100	123	123	123	123	0	30-130/20
95-48-7	2-Methylphenol	ND		100	94.9	95	93.9	94	1	30-130/20
	3&4-Methylphenol	ND		200	180	90	181	91	1	30-130/20
88-75-5	2-Nitrophenol	ND		100	127	127	125	125	2	30-130/20
100-02-7	4-Nitrophenol	ND		100	64.3	64	65.7	66	2	30-130/20
87-86-5	Pentachlorophenol	ND		100	124	124	121	121	2	30-130/20
108-95-2	Phenol	ND		100	47.9	48	48.7	49	2	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		100	126	126	125	125	1	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		100	128	128	127	127	1	30-130/20
62-53-3	Aniline	ND		50	27.8	56	27.1	54	3	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		50	41.5	83	40.7	81	2	40-140/20
85-68-7	Butyl benzyl phthalate	ND		50	40.0	80	37.3	75	7	40-140/20
100-51-6	Benzyl Alcohol	ND		50	36.0	72	36.0	72	0	40-140/20
91-58-7	2-Chloronaphthalene	ND		100	87.2	87	84.1	84	4	40-140/20
106-47-8	4-Chloroaniline	ND		50	35.2	70	35.0	70	1	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		50	42.3	85	40.8	82	4	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		50	47.4	95	46.1	92	3	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		50	46.4	93	45.1	90	3	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		50	41.9	84	40.7	81	3	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		50	46.6	93	46.2	92	1	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		100	89.6	90	88.4	88	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		100	90.3	90	86.9	87	4	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		50	6.0	12* [a]	5.9	12* [a]	2	40-140/20
132-64-9	Dibenzofuran	ND		50	41.4	83	39.9	80	4	40-140/20
84-74-2	Di-n-butyl phthalate	ND		50	40.1	80	38.6	77	4	40-140/20
117-84-0	Di-n-octyl phthalate	ND		50	48.4	97	48.1	96	1	40-140/20
84-66-2	Diethyl phthalate	ND		50	35.4	71	31.7	63	11	40-140/20
131-11-3	Dimethyl phthalate	ND		50	24.5	49	18.1	36* [b]	30* [b]	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		50	45.2	90	44.8	90	1	40-140/20
118-74-1	Hexachlorobenzene	ND		100	90.9	91	89.8	90	1	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Bateh
OP32725-MS	W11363.D	1	04/20/13	KR	04/19/13	OP32725	MSW530
OP32725-MSD	W11364.D	1	04/20/13	KR	04/19/13	OP32725	MSW530
MC19900-3	W11365.D	1	04/20/13	KR	04/19/13	OP32725	MSW530

The QC reported here applies to the following samples: Method: SW846 8270C

MC19877-1, MC19877-2, MC19877-3

CAS No.	Compound	MC19900-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		100	43.6	44	40.5	40	7	40-140/20
67-72-1	Hexachloroethane	ND		100	66.4	66	62.5	62	6	40-140/20
78-59-1	Isophorone	ND		100	93.2	93	91.5	92	2	40-140/20
88-74-4	2-Nitroaniline	ND		50	44.1	88	42.3	85	4	40-140/20
99-09-2	3-Nitroaniline	ND		50	32.0	64	31.6	63	1	40-140/20
100-01-6	4-Nitroaniline	ND		50	39.7	79	38.7	77	3	40-140/20
98-95-3	Nitrobenzene	ND		100	84.4	84	82.0	82	3	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		50	27.8	56	27.5	55	1	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		50	42.8	86	41.8	84	2	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		50	44.2	88	42.9	86	3	40-140/20
110-86-1	Pyridine	ND		50	24.2	48	23.2	46	4	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC19900-3	Limits
367-12-4	2-Fluorophenol	57%	57%	53%	15-110%
4165-62-2	Phenol-d5	37%	38%	35%	15-110%
118-79-6	2,4,6-Tribromophenol	84%	86%	82%	15-110%
4165-60-0	Nitrobenzene-d5	91%	88%	76%	30-130%
321-60-8	2-Fluorobiphenyl	89%	85%	70%	30-130%
1718-51-0	Terphenyl-d14	98%	99%	91%	30-130%

(a) Outside control limits. Blank Spike meets program technical requirements.
(b) Outside control limits dne to possible matrix interference. Refer to Blank Spike.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32726-MS	I82898.D	1	04/30/13	NS	04/19/13	OP32726	MSI3082
OP32726-MSD	I82899.D	1	04/30/13	NS	04/19/13	OP32726	MSI3082
MC20000-2	I82900.D	1	04/30/13	NS	04/19/13	OP32726	MSI3082

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC19877-1, MC19877-2, MC19877-3

CAS No.	Compound	MC20000-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	37.8	76	37.1	74	2	40-140/20
208-96-8	Acenaphthylene	ND		50	29.1	58	28.3	57	3	40-140/20
120-12-7	Anthracene	ND		50	38.9	78	38.5	77	1	40-140/20
56-55-3	Benzo(a)anthracene	ND		50	45.0	90	44.1	88	2	40-140/20
50-32-8	Benzo(a)pyrene	ND		50	39.7	79	39.6	79	0	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		50	42.4	85	41.2	82	3	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		50	50.1	100	49.6	99	1	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		50	48.6	97	47.9	96	1	40-140/20
218-01-9	Chrysene	ND		50	43.7	87	43.0	86	2	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		50	45.1	90	44.2	88	2	40-140/20
206-44-0	Fluoranthene	ND		50	42.3	85	41.6	83	2	40-140/20
86-73-7	Fluorene	ND		50	38.0	76	36.8	74	3	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	44.4	89	43.5	87	2	40-140/20
90-12-0	1-Methylnaphthalene	ND		50	37.9	76	36.0	72	5	40-140/20
91-57-6	2-Methylnaphthalene	ND		50	38.0	76	36.5	73	4	40-140/20
85-01-8	Phenanthrene	ND		50	39.5	79	38.8	78	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	MC20000-2	Limits
367-12-4	2-Fluorophenol	46%	46%	42%	15-110%
4165-62-2	Phenol-d5	30%	31%	28%	15-110%
118-79-6	2,4,6-Tribromophenol	85%	86%	79%	15-110%
4165-60-0	Nitrobenzene-d5	76%	74%	62%	30-130%
321-60-8	2-Fluorobiphenyl	73%	70%	61%	30-130%
1718-51-0	Terphenyl-d14	84%	84%	76%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSF2955-CC2937	Injection Date:	04/23/13
Lab File ID:	F63268.D	Injection Time:	08:25
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	30601	4.04	120229	5.04	78200	6.47	151840	7.82	177124	10.61	164040	12.08
Upper Limit [a]	61202	4.54	240458	5.54	156400	6.97	303680	8.32	354248	11.11	328080	12.58
Lower Limit [b]	15301	3.54	60115	4.54	39100	5.97	75920	7.32	88562	10.11	82020	11.58
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
MC19877-1	21368	4.05	81483	5.03	52879	6.47	99435	7.82	119424	10.60	110565	12.07
MC19877-2	22262	4.04	85798	5.04	55473	6.47	104511	7.82	127595	10.60	119464	12.07
MC19877-3	21485	4.04	82122	5.03	53522	6.47	98152	7.82	113172	10.60	106726	12.07
ZZZZZZ	19985	4.04	77547	5.03	50809	6.47	96854	7.82	111678	10.60	104837	12.07
ZZZZZZ	21327	4.04	80000	5.03	52503	6.47	99818	7.82	119862	10.60	111956	12.07
OP32727-MB	20489	4.04	79917	5.03	53016	6.47	100453	7.82	118991	10.60	107329	12.07
OP32727-BS	20413	4.04	78984	5.03	50853	6.47	96864	7.82	115337	10.60	105891	12.07
ZZZZZZ	21175	4.04	82490	5.03	54088	6.47	100954	7.82	119118	10.60	112149	12.07
ZZZZZZ	21998	4.04	82080	5.03	54954	6.47	103948	7.81	124053	10.60	116117	12.07
ZZZZZZ	23311	4.04	89069	5.03	57718	6.47	110366	7.82	133025	10.60	123320	12.07
ZZZZZZ	25349	4.04	99742	5.03	63925	6.47	118991	7.82	142916	10.60	125024	12.07
ZZZZZZ	25741	4.04	100971	5.03	65718	6.47	120885	7.82	144606	10.60	116897	12.07

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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3076-CC3044	Injection Date:	04/20/13
Lab File ID:	I82758.D	Injection Time:	11:37
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	198688	3.38	498219	4.35	262694	5.75	484699	6.98	380310	9.71	734775	11.10
Upper Limit [a]	397376	3.88	996438	4.85	525388	6.25	969398	7.48	760620	10.21	1469550	11.60
Lower Limit [b]	99344	2.88	249110	3.85	131347	5.25	242350	6.48	190155	9.21	367388	10.60
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
OP32709-MB	184844	3.38	481101	4.35	246087	5.74	422840	6.98	352887	9.71	664488	11.10
OP32709-BS	181140	3.39	458958	4.35	238054	5.75	424759	6.99	329864	9.71	614863	11.10
OP32709-MS	184551	3.39	469926	4.35	244607	5.75	428035	6.99	330004	9.71	621984	11.10
OP32709-MSD	178321	3.39	452907	4.35	233707	5.75	414897	6.99	316908	9.71	588923	11.10
MC19780-16	185016	3.38	478747	4.35	241781	5.74	422210	6.98	338243	9.71	658239	11.10
ZZZZZZ	188582	3.39	496441	4.35	254472	5.74	447611	6.98	345623	9.71	648306	11.10
ZZZZZZ	198820	3.39	518375	4.35	261609	5.75	459345	6.98	355173	9.71	660276	11.10
ZZZZZZ	213076	3.39	557461	4.35	282737	5.74	490871	6.98	376930	9.71	696851	11.10
ZZZZZZ	190417	3.38	492336	4.35	248823	5.74	427714	6.98	340233	9.71	650807	11.10
OP32726-MB	193929	3.38	506076	4.35	255039	5.74	432691	6.98	352603	9.71	678373	11.10
OP32726-BS	179418	3.39	457061	4.35	237987	5.75	425098	6.99	339833	9.71	653303	11.10
ZZZZZZ	180554	3.38	461790	4.35	237568	5.74	419666	6.98	329922	9.71	640689	11.10
ZZZZZZ	199416	3.38	507788	4.35	257258	5.74	438201	6.98	351698	9.71	671952	11.10
ZZZZZZ	191155	3.38	492221	4.35	249987	5.75	427618	6.98	348893	9.71	672667	11.10
ZZZZZZ	185985	3.38	478562	4.35	240501	5.75	423086	6.98	333485	9.71	636848	11.10
ZZZZZZ	177599	3.38	463565	4.35	229992	5.74	406981	6.98	320178	9.71	613151	11.10
ZZZZZZ	166470	3.38	427597	4.35	218587	5.74	380486	6.98	307985	9.70	599340	11.10
ZZZZZZ	159080	3.38	400741	4.35	203553	5.75	365430	6.99	295789	9.71	574698	11.10
ZZZZZZ	166145	3.38	424382	4.35	211682	5.75	373527	6.98	288963	9.71	556772	11.11
ZZZZZZ	162238	3.38	433337	4.35	224648	5.74	394415	6.98	312776	9.71	595994	11.10
ZZZZZZ	158731	3.38	407773	4.35	204644	5.74	358266	6.98	293771	9.71	567259	11.10
ZZZZZZ	158535	3.38	413509	4.35	204943	5.76	378538	7.00	312682	9.72	571639	11.11

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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3082-CC3044	Injection Date:	04/30/13
Lab File ID:	I82897.D	Injection Time:	08:31
Instrument ID:	GCMS1	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	133255	3.38	353748	4.35	195542	5.74	379995	6.98	335020	9.71	652948	11.10
Upper Limit [a]	266510	3.88	707496	4.85	391084	6.24	759990	7.48	670040	10.21	1305896	11.60
Lower Limit [b]	66628	2.88	176874	3.85	97771	5.24	189998	6.48	167510	9.21	326474	10.60
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
OP32726-MS	96070	3.38	255586	4.35	140115	5.74	266605	6.98	229443	9.71	447657	11.10
OP32726-MSD	103996	3.38	273910	4.35	148577	5.74	277173	6.98	239303	9.71	461299	11.10
MC20000-2	103303	3.38	277852	4.35	147983	5.74	275086	6.98	240364	9.70	483669	11.10
MC19877-1	99074	3.38	259765	4.35	141552	5.74	270086	6.98	250424	9.70	484799	11.10
MC19877-2	122497	3.38	316208	4.35	171143	5.74	321331	6.98	286465	9.70	572601	11.10
MC19877-3	104124	3.38	270486	4.35	143247	5.75	268116	6.98	237618	9.71	487728	11.10
OP32819-MB	111242	3.38	294946	4.35	155905	5.74	290447	6.98	251790	9.71	506761	11.10
OP32817-MB	111242	3.38	294946	4.35	155905	5.74	290447	6.98	251790	9.71	506761	11.10
OP32817-BS	120081	3.38	312656	4.35	170739	5.74	319528	6.98	274828	9.71	550136	11.10
OP32819-BS	120081	3.38	312656	4.35	170739	5.74	319528	6.98	274828	9.71	550136	11.10
OP32819-BSD	110710	3.38	286200	4.35	154825	5.74	287526	6.98	251552	9.71	499478	11.10
OP32792-MB	98274	3.38	266784	4.35	140523	5.74	262267	6.98	217160	9.70	422742	11.10
OP32817-MS	120995	3.38	310980	4.35	166550	5.74	308143	6.98	259231	9.70	528768	11.10
OP32819-MS	120995	3.38	310980	4.35	166550	5.74	308143	6.98	259231	9.70	528768	11.10
OP32817-MSD	124688	3.38	321793	4.35	172298	5.74	314260	6.98	266268	9.71	548838	11.10
OP32819-MSD	124688	3.38	321793	4.35	172298	5.74	314260	6.98	266268	9.71	548838	11.10
ZZZZZZ	122070	3.38	318972	4.35	167022	5.74	317381	6.98	272767	9.71	559944	11.10
ZZZZZZ	53150[c]	3.38	139238[c]	4.35	73790[c]	5.74	142842[c]	6.98	119773[c]	9.70	237595[c]	11.10
ZZZZZZ	125503	3.38	321704	4.35	194514	5.74	324269	6.98	283229	9.71	578958	11.10
ZZZZZZ	57448[c]	3.38	156260[c]	4.35	81221[c]	5.74	156247[c]	6.98	134367[c]	9.70	268360[c]	11.10
ZZZZZZ	100118	3.38	264422	4.35	141173	5.75	262243	6.98	220303	9.70	447736	11.10
ZZZZZZ	46694[c]	3.41	531852	4.44	167021	5.84	284128	7.05	301609	9.74	551412	11.13
ZZZZZZ	98633	3.38	270352	4.35	215191	5.75	296376	6.99	282183	9.73	525962	11.13
MC20000-14	85663	3.38	237313	4.35	133898	5.74	257043	6.98	225512	9.71	432248	11.10
MC20016-1	85663	3.38	237313	4.35	133898	5.74	257043	6.98	225512	9.71	432248	11.10
ZZZZZZ	88965	3.38	243798	4.35	134221	5.74	263093	6.98	230976	9.71	444445	11.10
ZZZZZZ	80536	3.38	213579	4.35	122396	5.74	237888	6.98	210190	9.71	408014	11.10
ZZZZZZ	93672	3.38	255288	4.35	139616	5.74	270428	6.98	236797	9.71	465677	11.10
ZZZZZZ	90264	3.38	243110	4.35	130782	5.74	247981	6.98	215952	9.70	433546	11.10
ZZZZZZ	103971	3.38	285411	4.35	153788	5.74	288211	6.98	256374	9.70	514165	11.10
ZZZZZZ	115023	3.38	297160	4.35	166957	5.74	305280	6.98	283063	9.71	559553	11.10
ZZZZZZ	101582	3.38	267281	4.35	148937	5.74	277549	6.98	256869	9.71	501256	11.10
ZZZZZZ	107098	3.38	293815	4.35	162935	5.74	309512	6.98	272049	9.71	533320	11.10

IS 1 = 1,4-Dichlorobenzene-d4

Semivolatile Internal Standard Area Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3082-CC3044	Injection Date:	04/30/13
Lab File ID:	I82897.D	Injection Time:	08:31
Instrument ID:	GCMSI	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.
(c) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

Semivolatile Internal Standard Area Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW530-CC505	Injection Date:	04/20/13
Lab File ID:	W11360.D	Injection Time:	11:34
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	103861	3.59	388749	4.58	264094	6.00	454319	7.28	584573	10.15	540287	11.72
Upper Limit [a]	207722	4.09	777498	5.08	528188	6.50	908638	7.78	1169146	10.65	1080574	12.22
Lower Limit [b]	51931	3.09	194375	4.08	132047	5.50	227160	6.78	292287	9.65	270144	11.22
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
OP32725-MB	100847	3.59	382892	4.57	250900	6.00	453639	7.27	543718	10.14	528166	11.71
OP32725-BS	106413	3.59	404505	4.58	268149	6.00	472019	7.28	577336	10.14	558192	11.71
OP32725-MS	106271	3.59	399397	4.58	262139	6.00	464657	7.28	568210	10.14	545804	11.71
OP32725-MSD	101917	3.59	385945	4.58	255785	6.00	448455	7.28	540636	10.14	523342	11.71
MC19900-3	90048	3.59	340511	4.57	220792	6.00	396998	7.27	469013	10.14	461458	11.71
OP32717-MB	99086	3.59	370138	4.57	240962	6.00	432236	7.28	500450	10.14	486810	11.71
OP32733-MB	99086	3.59	370138	4.57	240962	6.00	432236	7.28	500450	10.14	486810	11.71
OP32717-BS	101518	3.59	380299	4.58	249875	6.00	434286	7.28	524562	10.14	498739	11.71
OP32733-BS	101518	3.59	380299	4.58	249875	6.00	434286	7.28	524562	10.14	498739	11.71
OP32717-BSD	100792	3.59	373687	4.58	245441	6.00	423379	7.28	510116	10.14	484419	11.71
OP32733-MS	100221	3.59	372364	4.58	243339	6.00	433187	7.28	511446	10.14	491805	11.71
OP32717-MS	100221	3.59	372364	4.58	243339	6.00	433187	7.28	511446	10.14	491805	11.71
OP32717-MSD	100591	3.59	373466	4.58	245708	6.00	424115	7.28	508373	10.14	495797	11.71
OP32733-MSD	100591	3.59	373466	4.58	245708	6.00	424115	7.28	508373	10.14	495797	11.71
MC19900-10	107434	3.59	407699	4.57	261699	6.00	466626	7.28	544179	10.14	544484	11.71
MC19888-8	107434	3.59	407699	4.57	261699	6.00	466626	7.28	544179	10.14	544484	11.71
ZZZZZZ	109987	3.59	412456	4.57	266512	6.00	481601	7.28	608708	10.14	605704	11.72
ZZZZZZ	104774	3.59	396739	4.57	263352	6.00	469088	7.28	545004	10.14	540350	11.71
ZZZZZZ	103050	3.59	391586	4.58	253225	6.00	460474	7.27	534505	10.14	528091	11.71
ZZZZZZ	103836	3.59	394755	4.57	261081	6.00	458230	7.28	545755	10.14	537153	11.71
ZZZZZZ	108212	3.59	411979	4.57	269294	6.00	482163	7.28	568636	10.14	558192	11.71
ZZZZZZ	103329	3.59	398363	4.57	262939	6.00	467780	7.27	563075	10.14	546445	11.71
ZZZZZZ	97025	3.59	372880	4.57	241667	6.00	438791	7.27	521284	10.14	514183	11.71
ZZZZZZ	101808	3.59	387493	4.57	253113	6.00	462783	7.27	557858	10.14	539075	11.71
ZZZZZZ	88524	3.59	342764	4.57	221671	6.00	404208	7.27	481751	10.14	473183	11.71
ZZZZZZ	95302	3.59	363538	4.57	240264	6.00	438072	7.27	518213	10.14	516232	11.71
ZZZZZZ	95025	3.59	365094	4.57	237747	6.00	435543	7.27	527518	10.14	525095	11.71
ZZZZZZ	93895	3.59	362148	4.57	237235	6.00	436552	7.27	527393	10.14	521297	11.71
ZZZZZZ	91749	3.59	372175	4.58	278548	6.01	506521	7.29	544196	10.14	530444	11.71
ZZZZZZ	96943	3.59	414028	4.58	311573	6.02	531687	7.30	577684	10.14	556330	11.71
ZZZZZZ	95186	3.59	379265	4.57	264222	6.00	473951	7.27	569797	10.14	567396	11.71
ZZZZZZ	98399	3.59	418265	4.58	326018	6.01	559226	7.29	609622	10.14	594983	11.71
ZZZZZZ	79931	3.59	312375	4.57	210215	6.00	398498	7.27	509024	10.13	507972	11.71

IS 1 = 1,4-Dichlorobenzene-d4

Semivolatile Internal Standard Area Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW530-CC505	Injection Date:	04/20/13
Lab File ID:	W11360.D	Injection Time:	11:34
Instrument ID:	GCMSW	Method:	SW846 8270C

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

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.

7.4.4

7

Semivolatile Surrogate Recovery Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19877-1	F63269.D	46.0	31.0	95.0	95.0	85.0	65.0
MC19877-2	F63270.D	49.0	40.0	97.0	92.0	82.0	49.0
MC19877-3	F63271.D	45.0	31.0	87.0	80.0	67.0	48.0
OP32725-BS	W11362.D	53.0	35.0	80.0	74.0	72.0	87.0
OP32725-MB	W11361.D	43.0	27.0	68.0	67.0	62.0	76.0
OP32725-MS	W11363.D	57.0	37.0	84.0	91.0	89.0	98.0
OP32725-MSD	W11364.D	57.0	38.0	86.0	88.0	85.0	99.0

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%

Semivolatile Surrogate Recovery Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19877-1	I82901.D	77.0	75.0	66.0
MC19877-2	I82902.D	74.0	73.0	49.0
MC19877-3	I82903.D	64.0	62.0	47.0
OP32726-BS	I82769.D	64.0	58.0	72.0
OP32726-MB	I82768.D	56.0	55.0	64.0
OP32726-MS	I82898.D	76.0	73.0	84.0
OP32726-MSD	I82899.D	74.0	70.0	84.0

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

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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32697-MB	BK23674.D	1	04/18/13	NK	04/17/13	OP32697	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19877-1, MC19877-2, MC19877-3, MC19877-5

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)	97%	36-173%
460-00-4	Bromofluorobenzene (S)	102%	36-173%

8.1.1

Blank Spike Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32697-BS	BK23675.D	1	04/18/13	NK	04/17/13	OP32697	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19877-1, MC19877-2, MC19877-3, MC19877-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dibromo-3-chloropropane	0.071	0.064	90	60-140
106-93-4	1,2-Dibromoethane	0.071	0.078	110	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	101%	36-173%
460-00-4	Bromofluorobenzene (S)	102%	36-173%

8.2.1

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
OP32697-MS	BK23676.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
OP32697-MSD	BK23677.D	1	04/18/13	NK	04/17/13	OP32697	GBK833
MC19800-11	BK23678.D	1	04/18/13	NK	04/17/13	OP32697	GBK833

The QC reported here applies to the following samples: Method: SW846 8011

MC19877-I, MC19877-2, MC19877-3, MC19877-5

CAS No.	Compound	MC19800-11 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	0.067	94	0.069	97	3	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.071	0.077	108	0.067	94	14	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC19800-11	Limits
460-00-4	Bromoflnorobenzene (S)	97%	95%	94%	36-173%
460-00-4	Bromofluorobenzene (S)	101%	102%	100%	36-173%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC19877-1	BK23687.D	117.0	119.0
MC19877-2	BK23688.D	140.0	127.0
MC19877-3	BK23689.D	115.0	95.0
MC19877-5	BK23690.D	115.0	121.0
OP32697-BS	BK23675.D	101.0	102.0
OP32697-MB	BK23674.D	97.0	102.0
OP32697-MS	BK23676.D	97.0	101.0
OP32697-MSD	BK23677.D	95.0	102.0

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: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-ICC833	Injection Date:	04/18/13
Lab File ID:	BK23669.D	Injection Time:	13:39
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23672A.D	04/18/13	14:51	4.45	4.89
OP32697-MB	BK23674.D	04/18/13	15:40	4.45	4.89
OP32697-BS	BK23675.D	04/18/13	16:04	4.45	4.89
OP32697-MS	BK23676.D	04/18/13	16:29	4.45	4.89
OP32697-MSD	BK23677.D	04/18/13	16:52	4.45	4.89
MC19800-11	BK23678.D	04/18/13	17:16	4.45	4.89
ZZZZZZ	BK23679.D	04/18/13	17:40	4.45	4.88
ZZZZZZ	BK23680.D	04/18/13	18:04	4.45	4.89
ZZZZZZ	BK23681.D	04/18/13	18:28	4.45	4.88
ZZZZZZ	BK23682.D	04/18/13	18:51	4.45	4.88
ZZZZZZ	BK23683.D	04/18/13	19:15	4.45	4.88

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

8.5.1 8

GC Surrogate Retention Time Summary

Job Number: MC19877
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBK833-CC833	Injection Date:	04/18/13
Lab File ID:	BK23684.D	Injection Time:	19:38
Instrument ID:	GCBK	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.45	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BK23685.D	04/18/13	20:02	4.45	4.89
ZZZZZZ	BK23686.D	04/18/13	20:25	4.45	4.88
MC19877-1	BK23687.D	04/18/13	20:48	4.45	4.88
MC19877-2	BK23688.D	04/18/13	21:12	4.45	4.88
MC19877-3	BK23689.D	04/18/13	21:36	4.45	4.88
MC19877-5	BK23690.D	04/18/13	22:01	4.45	4.89
OP32696-MB	BK23691.D	04/18/13	22:25	4.45	4.89
OP32696-BS	BK23692.D	04/18/13	22:49	4.45	4.89
OP32696-MS	BK23693.D	04/18/13	23:13	4.45	4.89
OP32696-MSD	BK23694.D	04/18/13	23:38	4.45	4.89

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 – 2nd Quarter 2013 Data Review

Laboratory SDG: MC20494

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/20/2013

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

Sample Identification	Sample Identification
P54-ROX-050313	TB-ROX-050313-HCL
TB-ROX-050313-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 recoveries were outside evaluation criteria. VOC and SVOC MS/MSD recoveries were outside evaluation criteria in sample P54-ROX-050313. Additionally, the initial calibration verification for acrolein and acetone 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 1.0ºC, 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
MSV731-BS1	VOCs	Acrolein	**134**	NA	70-130
MSV731-BS1	VOCs	2-Chloroethyl vinyl ether	**0**	NA	70-130

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 MSV731-BS1 was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
P54-ROX-050313	VOCs	2-Chloroethyl vinyl ether	**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-050313 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
P54-ROX-050313	VOCs	Acetone	**132/**130	1	70-130/30
P54-ROX-050313	VOCs	2-Chloroethyl vinyl ether	**0/0**	NA	70-130/30
P54-ROX-050313	VOCs	1,2-Dichloroethane	**134**/130	3	70-130/30
P54-ROX-050313	SVOCs	n-Nitrosodiphenylamine	**37/38**	0	40-140/20
P54-ROX-050313	SVOCs	Pyridine	**33**/42	**23**	40-140/20

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. No further qualification of data was required.

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?

Yes, the initial calibration verification for acrolein and acetone exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of acrolein was required. Acetone in associated samples was qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P54-ROX-050313	VOCs	Acetone	**UJ**
P54-ROX-050313	VOCs	Acrolein	**UJ**

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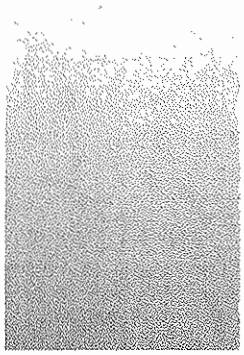
05/20/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC20494

Sampling Date: 05/03/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **55**

Reviewed on 5/20/2013

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)

Test results relate only to samples analyzed.

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Sections: 1 2 3 4 5 6 7 8

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Sample Summary

Shell Oil

Job No: MC20494

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC20494-1	05/03/13	12:05	LRMM	05/06/13	AQ	Ground Water	P54-ROX-050313
MC20494-1D	05/03/13	12:05	LRMM	05/06/13	AQ	Water Dup/MSD	P54-ROX-050313
MC20494-IS	05/03/13	12:05	LRMM	05/06/13	AQ	Water Matrix Spike	P54-ROX-050313
MC20494-2	05/03/13	00:00	LRMM	05/06/13	AQ	Trip Blank Water	TB-ROX-050313-HCL
MC20494-3	05/03/13	00:00	LRMM	05/06/13	AQ	Trip Blank Water	TB-ROX-050313-ST

ACCUTEST LABORATORIES

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	Job No	MC20494
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	Report Date	5/20/2013 2:30:55 PM

1 Sample(s), 2 Trip Blank(s) were collected on 05/03/2013 and were received at Accutest on 05/06/2013 properly preserved, at 1 Deg. C and intact. These Samples received an Accutest job number of MC20494. 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: MSV731

- All samples were analyzed within the recommended method holding time.
- Sample(s) MC20494-1MS, MC20494-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Initial calibration verification standard MSV704-ICV704 for acetone exceeds 50% Difference (response bias high). Associated samples are non-detect for this compound.
- Blank Spike Recovery(s) for 2-Chloroethyl vinyl ether, Acrolein are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 1,2-Dichloroethane, 2-Chloroethyl vinyl ether, Acetone 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 interferenee. Refer to Blank Spike.
- Initial calibration verification standard MSV704-ICV704 for acrolein exceeds 50% Difference. Acrolein is considered a difficult method analyte.

Extractables by GCMS By Method SW846 8270C

Matrix AQ Batch ID: OP32991

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC20494-1MS, MC20494-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for N-Nitrosodiphenylamine, Pyridine are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for N-Nitrosodiphenylamine are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- RPD(s) for MSD for Pyridine are outside control limits for sample OP32991-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: OP32992

- 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) MC20494-1MS, MC20494-1MSD were used as the QC samples indicated.

Volatiles by GC By Method SW846 8011

Matrix AQ	Batch ID: OP33031

- 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) MC20494-1MS, MC20494-1MSD 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(MC20494).

Summary of Hits

Job Number: MC20494
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 05/03/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC20494-1	P54-ROX-050313					
Benzene		2.8	0.50	0.45	ug/l	SW846 8260B
MC20494-2	TB-ROX-050313-HCL					
No hits reported in this sample.						
MC20494-3	TB-ROX-050313-ST					
No hits reported in this sample.						

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	P54-ROX-050313		
Lab Sample ID:	MC20494-1	Date Sampled:	05/03/13
Matrix:	AQ - Ground Water	Date Received:	05/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V18605.D	1	05/08/13	AMY	n/a	u/a	MSV731
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	2.8	ug/l	UJ
107-02-8	Acrolein	ND	25	6.3	ug/l	UJ
107-13-1	Acrylonitrile	ND	5.0	3.5	ug/l	
71-43-2	Benzene	2.8	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ng/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Bntylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ng/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ng/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	UJ
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ng/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ng/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	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:	P54-ROX-050313		
Lab Sample ID:	MC20494-1	Date Sampled:	05/03/13
Matrix:	AQ - Ground Water	Date Received:	05/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.1	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
123-91-1	1,4-Dioxane	ND	25	16	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	u-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.74	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ng/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	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-050313		
Lab Sample ID:	MC20494-1	Date Sampled:	05/03/13
Matrix:	AQ - Ground Water	Date Received:	05/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	88%		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:	P54-ROX-050313		
Lab Sample ID:	MC20494-1	Date Sampled:	05/03/13
Matrix:	AQ - Ground Water	Date Received:	05/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W12080.D	1	05/10/13	KR	05/07/13	OP32991	MSW558
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	0.43	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	11	0.55	ug/l	
120-83-2	2,4-Dichlorophenol	ND	11	0.36	ug/l	
105-67-9	2,4-Dimethylphenol	ND	11	1.3	ug/l	
51-28-5	2,4-Dinitrophenol	ND	22	2.8	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	1.3	ug/l	
95-48-7	2-Methylphenol	ND	11	1.4	ug/l	
	3&4-Methylphenol	ND	11	2.3	ug/l	
88-75-5	2-Nitrophenol	ND	11	0.56	ug/l	
100-02-7	4-Nitrophenol	ND	22	0.65	ug/l	
87-86-5	Pentachlorophenol	ND	11	1.4	ug/l	
108-95-2	Phenol	ND	5.6	0.57	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	11	0.64	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	11	0.35	ug/l	
62-53-3	Aniline	ND	11	0.71	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	0.23	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.6	0.95	ug/l	
100-51-6	Benzyl Alcohol	ND	11	0.64	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	11	0.28	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	0.23	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	0.26	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	0.15	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	0.72	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	11	0.75	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	11	0.71	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.6	0.56	ug/l	
132-64-9	Dibenzofuran	ND	2.2	0.17	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.6	0.43	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.6	0.48	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-050313		
Lab Sample ID:	MC20494-1	Date Sampled:	05/03/13
Matrix:	AQ - Ground Water	Date Received:	05/06/13
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	0.56	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.2	0.54	ug/l	
118-74-1	Hexachlorobenzene	ND	5.6	0.33	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	2.8	ug/l	
67-72-1	Hexachloroethane	ND	5.6	0.49	ug/l	
78-59-1	Isophorone	ND	5.6	0.22	ug/l	
88-74-4	2-Nitroaniline	ND	11	0.31	ug/l	
99-09-2	3-Nitroaniline	ND	11	0.56	ug/l	
100-01-6	4-Nitroaniline	ND	11	4.8	ng/l	
98-95-3	Nitrobenzene	ND	5.6	0.28	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.6	0.56	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.6	0.90	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	0.60	ug/l	
110-86-1	Pyridine	ND	11	0.57	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Flnorophenol	49%		15-110%
4165-62-2	Phenol-d5	35%		15-110%
118-79-6	2,4,6-Tribromophenol	91%		15-110%
4165-60-0	Nitrobenzene-d5	83%		30-130%
321-60-8	2-Fluorobiphenyl	86%		30-130%
1718-51-0	Terphenyl-d14	96%		30-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile		0	ng/l	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calihration range
J = Indicates 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-050313		
Lab Sample ID:	MC20494-1	Date Sampled:	05/03/13
Matrix:	AQ - Ground Water	Date Received:	05/06/13
Method:	SW846 8270C BY SIM SW846 3510C	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I83251.D	1	05/10/13	NS	05/07/13	OP32992	MSI3092
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	ND	0.22	0.058	ug/l	
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	51%		15-110%
4165-62-2	Phenol-d5	38%		15-110%
118-79-6	2,4,6-Tribromophenol	77%		15-110%
4165-60-0	Nitrobenzene-d5	88%		30-130%
321-60-8	2-Fluorobiphenyl	76%		30-130%
1718-51-0	Terphenyl-d14	77%		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:	P54-ROX-050313		
Lab Sample ID:	MC20494-1	Date Sampled:	05/03/13
Matrix:	AQ - Ground Water	Date Received:	05/06/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB47699.D	1	05/10/13	CZ	05/08/13	OP33031	GBB2861
Run #2							

	Initial Volume	Final Volume
Run #1	32.9 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	0.016	0.014	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	82%		36-173%
460-00-4	Bromofluorobenzene (S)	90%		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-050313-HCL		
Lab Sample ID:	MC20494-2	Date Sampled:	05/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	05/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V18604.D	1	05/08/13	AMY	n/a	n/a	MSV731
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	2.8	ug/l	
107-02-8	Acrolein	ND	25	6.3	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.5	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ng/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	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-050313-HCL		
Lab Sample ID:	MC20494-2	Date Sampled:	05/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	05/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Speeial List

CAS No.	Compound	Result	RL	MDL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.1	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
123-91-1	1,4-Dioxane	ND	25	16	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ng/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.74	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ng/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	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-050313-HCL		
Lab Sample ID:	MC20494-2	Date Sampled:	05/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	05/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	94%		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-050313-ST		
Lab Sample ID:	MC20494-3	Date Sampled:	05/03/13
Matrix:	AQ - Trip Blank Water	Date Received:	05/06/13
Method:	SW846 8011 SW846 8011	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB47700.D	1	05/10/13	CZ	05/08/13	OP33031	GBB2861
Run #2							

	Initial Volume	Final Volume
Run #1	33.7 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	0.016	0.013	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.016	0.011	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	80%		36-173%
460-00-4	Bromofluorobenzene (S)	86%		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

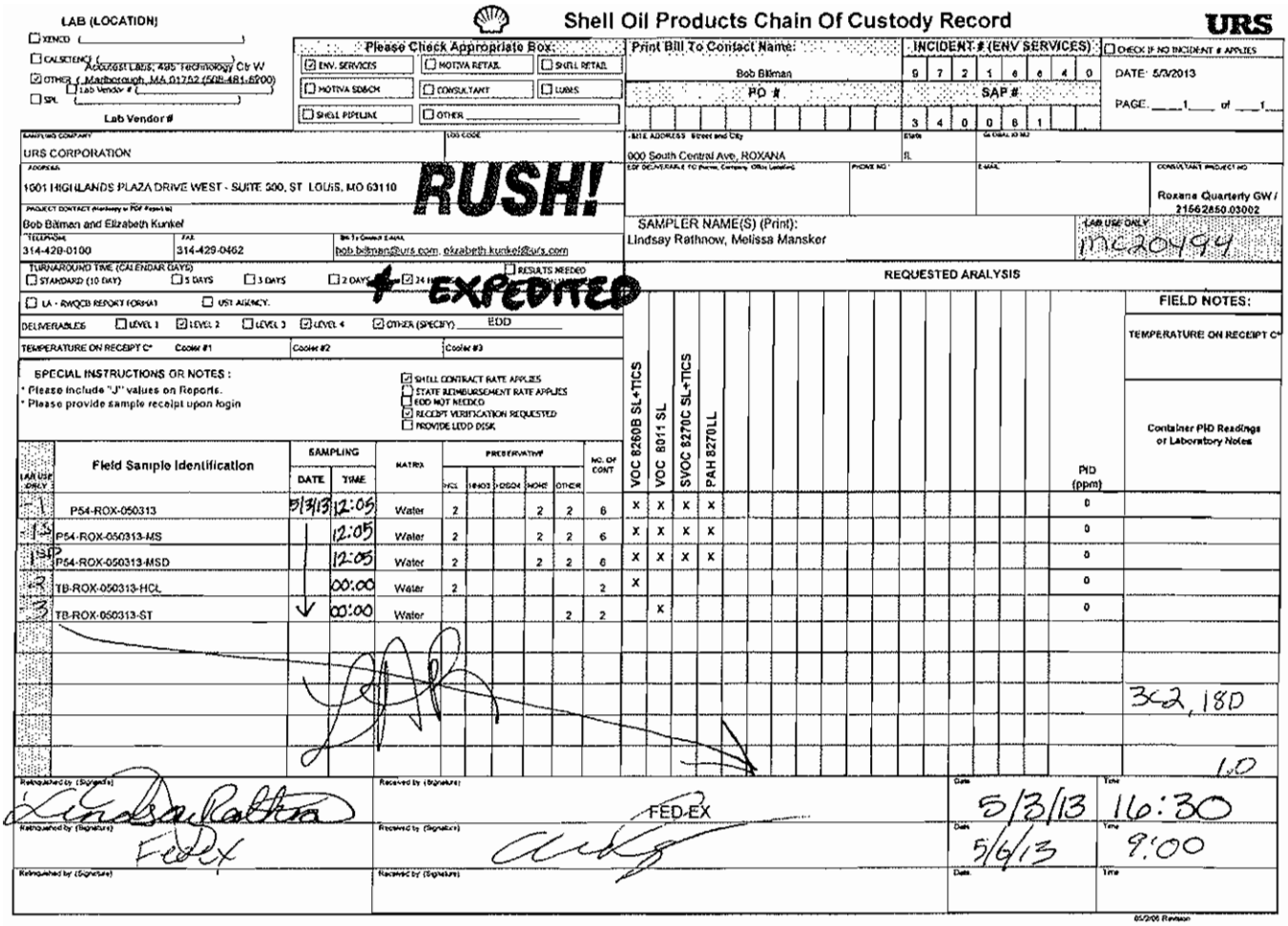
Misc. Forms

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 (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 SD&CH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Bob Bilman
INCIDENT # (ENV SERVICES): 9 7 2 1 6 6 4 0
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 5/3/2013
PAGE: 1 of 1
PO #:
SAP #: 3 4 0 0 8 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): Bob Bilman and Elizabeth Kunkel
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: bob.bilman@urs.com, elizabeth.kunkel@urs.com

RUSH!

SITE ADDRESS (Street and City): 000 South Central Ave, ROXANA
State: IL
EDF DELIVERABLE TO (Name, Company, Office Location):
PHONE NO.:
E-MAIL:
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21562850.03002

SAMPLER NAME(S) (Print): Lindsay Rathnow, Melissa Mansker
LAB USE ONLY: MC20494

TURNAROUND TIME (CALENDAR DAYS)
☐ STANDARD (10 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☑ 24 H
RESULTS NEEDED

4 EXPEDITED

☐ 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 LEDD DISK

REQUESTED ARALYSIS

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	P54-ROX-050313	5/3/13	12:05	Water	2			2	2	6	X	X	X	X	0	
-1S	P54-ROX-050313-MS		12:05	Water	2			2	2	6	X	X	X	X	0	
-1SD	P54-ROX-050313-MSD		12:05	Water	2			2	2	6	X	X	X	X	0	
-2	TB-ROX-050313-HCL		00:00	Water	2					2	X				0	
-3	TB-ROX-050313-ST	↓	00:00	Water					2	2		X			0	
																342, 18D
																1,0

Relinquished by (Signature)	Received by (Signature)	Date	Time
Lindsay Rathnow	FED-EX	5/3/13	16:30
FedEx		5/6/13	9:00

05/2006 Revision

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MC20494: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC20494 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 5/6/2013 **Delivery Method:** **Client Service Action Required at Login:** No

Project: 900 SOUTH CENTRAL ROXANA **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 Preservation	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

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MC20494: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC20494

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC20494-1 Collected: 03-MAY-13 12:05 By: LRMM Received: 06-MAY-13 By: P54-ROX-050313						
MC20494-1	SW846 8260B	08-MAY-13 13:17	AMY			V8260SL+
MC20494-1	SW846 8011	10-MAY-13 01:05	CZ	08-MAY-13	TA	V8011SL
MC20494-1	SW846 8270C	10-MAY-13 01:24	KR	07-MAY-13	AF	AB8270SL+
MC20494-1	SW846 8270C BY SIM	10-MAY-13 19:06	NS	07-MAY-13	FC	B8270SIMSL
MC20494-2 Collected: 03-MAY-13 00:00 By: LRMM Received: 06-MAY-13 By: TB-ROX-050313-HCL						
MC20494-2	SW846 8260B	08-MAY-13 12:51	AMY			V8260SL+
MC20494-3 Collected: 03-MAY-13 00:00 By: LRMM Received: 06-MAY-13 By: TB-ROX-050313-ST						
MC20494-3	SW846 8011	10-MAY-13 01:39	CZ	08-MAY-13	TA	V8011SL

Accutest Internal Chain of Custody

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 05/06/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC20494-1.1	Walk In Ref #22	Michael Rolo	05/07/13 08:11	Retrieve from Storage
MC20494-1.1	Michael Rolo		05/08/13 07:19	Depleted
MC20494-1.2	Walk In Ref #22	Michael Rolo	05/07/13 08:11	Retrieve from Storage
MC20494-1.2	Michael Rolo		05/08/13 07:19	Depleted
MC20494-1.3	VOC Ref #1	Amy Min Yang	05/08/13 11:45	Retrieve from Storage
MC20494-1.3	Amy Min Yang	GCMSV	05/08/13 11:45	Load on Instrument
MC20494-1.3	GCMSV	Amy Min Yang	05/09/13 17:18	Unload from Instrument
MC20494-1.3	Amy Min Yang	VOC Ref #1	05/09/13 17:20	Return to Storage
MC20494-1.7	Walk In Ref #22	Michael Rolo	05/07/13 08:11	Retrieve from Storage
MC20494-1.7	Michael Rolo		05/08/13 07:19	Depleted
MC20494-1.9	VOC Ref #1	Amy Min Yang	05/08/13 11:45	Retrieve from Storage
MC20494-1.9	Amy Min Yang	GCMSV	05/08/13 11:45	Load on Instrnment
MC20494-1.9	GCMSV	Amy Min Yang	05/09/13 17:18	Unload from Instrument
MC20494-1.9	Amy Min Yang	VOC Ref #1	05/09/13 17:20	Return to Storage
MC20494-1.10	VOC Ref #1	Amy Min Yang	05/08/13 11:45	Retrieve from Storage
MC20494-1.10	Amy Min Yang	GCMSV	05/08/13 11:45	Load on Instrument
MC20494-1.10	GCMSV	Amy Min Yang	05/09/13 17:18	Unload from Instrument
MC20494-1.10	Amy Min Yang	VOC Ref #1	05/09/13 17:20	Return to Storage
MC20494-1.15	VOC Ref #1	Amy Min Yang	05/08/13 11:45	Retrieve from Storage
MC20494-1.15	Amy Min Yang	GCMSV	05/08/13 11:45	Load on Instrument
MC20494-1.15	GCMSV	Amy Min Yang	05/09/13 17:18	Unload from Instrument
MC20494-1.15	Amy Min Yang	VOC Ref #1	05/09/13 17:20	Retnrn to Storage
MC20494-2.2	VOC Ref #1	Amy Min Yang	05/08/13 11:45	Retrieve from Storage
MC20494-2.2	Amy Min Yang	GCMSV	05/08/13 11:45	Load on Instrument
MC20494-2.2	GCMSV	Amy Min Yang	05/09/13 17:18	Unload from Instrument
MC20494-2.2	Amy Min Yang	VOC Ref #1	05/09/13 17:20	Return to Storage

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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV731-MB	V18598.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
107-02-8	Acrolein	ND	25	6.3	ug/l	
107-13-1	Acrylonitrile	ND	5.0	3.5	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
108-86-1	Bromobenzene	ND	5.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	5.0	0.64	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.33	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.5	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	1.6	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.54	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	0.58	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	0.87	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.59	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.48	ug/l	
75-00-3	Chloroethane	ND	2.0	0.84	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	1.1	ug/l	
67-66-3	Chloroform	ND	1.0	0.50	ug/l	
74-87-3	Chloromethane	ND	2.0	1.4	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	0.55	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	0.48	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.33	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.2	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.45	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.97	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.1	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.63	ug/l	

Method Blank Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV731-MB	V18598.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Compound	Result	RL	MDL	Units	Q
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.22	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.29	ug/l	
123-91-1	1,4-Dioxane	ND	25	16	ug/l	
97-63-2	Ethyl methacrylate	ND	5.0	0.81	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	1.3	ug/l	
591-78-6	2-Hexanone	ND	5.0	2.3	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	0.64	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	0.55	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.3	ug/l	
74-95-3	Methylene bromide	ND	5.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	0.59	ug/l	
100-42-5	Styrene	ND	5.0	0.49	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	0.46	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.74	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	0.76	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.45	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.61	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.70	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.47	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.1	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.70	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

6.1.1

Method Blank Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV731-MB	V18598.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	87%	70-130%
2037-26-5	Toluene-D8	92%	70-130%
460-00-4	4-Bromofluorobenzene	88%	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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV731-BS1	V18595.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	63.9	128	70-130
107-02-8	Acrolein	250	334	134* a	70-130
107-13-1	Acrylonitrile	50	55.3	111	70-130
71-43-2	Benzene	50	46.6	93	70-130
108-86-1	Bromobenzene	50	51.5	103	70-130
74-97-5	Bromochloromethane	50	45.3	91	70-130
75-27-4	Bromodichloromethane	50	52.9	106	70-130
75-25-2	Bromoform	50	49.6	99	70-130
74-83-9	Bromomethane	50	50.2	100	70-130
78-93-3	2-Butanone (MEK)	50	52.7	105	70-130
104-51-8	n-Butylbenzene	50	45.4	91	70-130
135-98-8	sec-Butylbenzene	50	43.5	87	70-130
98-06-6	tert-Butylbenzene	50	50.7	101	70-130
75-15-0	Carbon disulfide	50	52.1	104	70-130
56-23-5	Carbon tetrachloride	50	48.4	97	70-130
108-90-7	Chlorobenzene	50	44.8	90	70-130
75-00-3	Chloroethane	50	55.3	111	70-130
110-75-8	2-Chloroethyl vinyl ether	50	ND	0* a	70-130
67-66-3	Chloroform	50	51.3	103	70-130
74-87-3	Chloromethane	50	59.0	118	70-130
95-49-8	o-Chlorotoluene	50	49.0	98	70-130
106-43-4	p-Chlorotoluene	50	50.3	101	70-130
124-48-1	Dibromochloromethane	50	46.2	92	70-130
95-50-1	1,2-Dichlorobenzene	50	48.0	96	70-130
541-73-1	1,3-Dichlorobenzene	50	47.1	94	70-130
106-46-7	1,4-Dichlorobenzene	50	48.3	97	70-130
75-71-8	Dichlorodifluoromethane	50	39.8	80	70-130
75-34-3	1,1-Dichloroethane	50	52.5	105	70-130
107-06-2	1,2-Dichloroethane	50	59.9	120	70-130
75-35-4	1,1-Dichloroethene	50	50.5	101	70-130
156-59-2	cis-1,2-Dichloroethene	50	44.1	88	70-130
156-60-5	trans-1,2-Dichloroethene	50	52.6	105	70-130
78-87-5	1,2-Dichloropropane	50	52.1	104	70-130
142-28-9	1,3-Dichloropropane	50	51.8	104	70-130
594-20-7	2,2-Dichloropropane	50	54.2	108	70-130
563-58-6	1,1-Dichloropropene	50	53.9	108	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
MSV731-BS1	V18595.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
10061-01-5	cis-1,3-Dichloropropene	50	49.2	98	70-130
10061-02-6	trans-1,3-Dichloropropene	50	56.2	112	70-130
123-91-1	1,4-Dioxane	250	275	110	70-130
97-63-2	Ethyl methacrylate	50	53.0	106	77-137
100-41-4	Ethylbenzene	50	51.0	102	70-130
87-68-3	Hexachlorobutadiene	50	56.9	114	70-130
591-78-6	2-Hexanone	50	56.5	113	70-130
98-82-8	Isopropylbenzene	50	52.1	104	70-130
99-87-6	p-Isopropyltoluene	50	47.3	95	70-130
1634-04-4	Methyl Tert Butyl Ether	50	60.4	121	70-130
108-10-1	4-Methyl-2-pentanone (MIBK)	50	58.9	118	70-130
74-95-3	Methylene bromide	50	52.4	105	70-130
75-09-2	Methylene chloride	50	55.8	112	70-130
91-20-3	Naphthalene	50	60.1	120	70-130
103-65-1	n-Propylbenzene	50	51.7	103	70-130
100-42-5	Styrene	50	50.3	101	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	57.4	115	70-130
127-18-4	Tetrachloroethene	50	45.9	92	70-130
108-88-3	Toluene	50	51.2	102	70-130
87-61-6	1,2,3-Trichlorobenzene	50	64.4	129	70-130
120-82-1	1,2,4-Trichlorobenzene	50	57.1	114	70-130
71-55-6	1,1,1-Trichloroethane	50	46.7	93	70-130
79-00-5	1,1,2-Trichloroethane	50	53.5	107	70-130
79-01-6	Trichloroethene	50	47.0	94	70-130
75-69-4	Trichlorofluoromethane	50	42.8	86	70-130
96-18-4	1,2,3-Trichloropropane	50	53.5	107	70-130
95-63-6	1,2,4-Trimethylbenzene	50	53.7	107	70-130
108-67-8	1,3,5-Trimethylbenzene	50	47.9	96	70-130
108-05-4	Vinyl Acetate	50	56.4	113	70-130
75-01-4	Vinyl chloride	50	46.3	93	70-130
	m,p-Xylene	100	99.7	100	70-130
95-47-6	o-Xylene	50	49.8	100	70-130
1330-20-7	Xylene (total)	150	149	99	70-130

* = Outside of Control Limits.

6.2.1

Blank Spike Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV731-BS1	V18595.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	84%	70-130%
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	89%	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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC20494-1MS	V18614.D	1	05/08/13	AMY	n/a	n/a	MSV731
MC20494-1MSD	V18615.D	1	05/08/13	AMY	n/a	n/a	MSV731
MC20494-1	V18605.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Compound	MC20494-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	66.1	132* a	65.2	130	1	70-130/30
107-02-8	Acrolein	ND		250	309	124	307	123	1	70-130/30
107-13-1	Acrylonitrile	ND		50	60.1	120	57.1	114	5	70-130/30
71-43-2	Benzene	2.8		50	48.8	92	47.6	90	2	70-130/30
108-86-1	Bromobenzene	ND		50	47.7	95	47.6	95	0	70-130/30
74-97-5	Bromochloromethane	ND		50	44.4	89	43.2	86	3	70-130/30
75-27-4	Bromodichloromethane	ND		50	57.5	115	56.0	112	3	70-130/30
75-25-2	Bromoform	ND		50	47.4	95	47.1	94	1	70-130/30
74-83-9	Bromomethane	ND		50	50.3	101	48.5	97	4	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	48.4	97	49.9	100	3	70-130/30
104-51-8	n-Butylbenzene	ND		50	42.5	85	42.3	85	0	70-130/30
135-98-8	sec-Butylbenzene	ND		50	41.4	83	40.9	82	1	70-130/30
98-06-6	tert-Butylbenzene	ND		50	50.3	101	49.1	98	2	70-130/30
75-15-0	Carbon disulfide	ND		50	49.7	99	49.0	98	1	70-130/30
56-23-5	Carbon tetrachloride	ND		50	54.2	108	51.4	103	5	70-130/30
108-90-7	Chlorobenzene	ND		50	42.9	86	42.0	84	2	70-130/30
75-00-3	Chloroethane	ND		50	55.7	111	54.1	108	3	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	53.2	106	51.7	103	3	70-130/30
74-87-3	Chloromethane	ND		50	60.7	121	58.0	116	5	70-130/30
95-49-8	o-Chlorotoluene	ND		50	46.2	92	46.1	92	0	70-130/30
106-43-4	p-Chlorotoluene	ND		50	49.3	99	48.2	96	2	70-130/30
124-48-1	Dibromochloromethane	ND		50	45.4	91	44.8	90	1	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	44.3	89	44.7	89	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	44.5	89	44.4	89	0	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	45.6	91	45.2	90	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	41.7	83	38.7	77	7	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	53.0	106	52.2	104	2	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	66.8	134* a	64.8	130	3	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	47.8	96	47.3	95	1	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	42.8	86	41.8	84	2	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	50.5	101	49.7	99	2	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	54.1	108	53.1	106	2	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	49.8	100	48.6	97	2	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	56.3	113	54.2	108	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	55.8	112	53.9	108	3	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC20494-1MS	V18614.D	1	05/08/13	AMY	n/a	n/a	MSV731
MC20494-1MSD	V18615.D	1	05/08/13	AMY	n/a	n/a	MSV731
MC20494-1	V18605.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Compound	MC20494-1 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	49.1	98	48.5	97	1	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	58.3	117	57.6	115	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	225	90	241	96	7	70-130/30
97-63-2	Ethyl methacrylate	ND		50	53.0	106	53.0	106	0	72-139/30
100-41-4	Ethylbenzene	ND		50	50.0	100	48.0	96	4	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	49.9	100	51.5	103	3	70-130/30
591-78-6	2-Hexanone	ND		50	54.6	109	53.7	107	2	70-130/30
98-82-8	Isopropylbenzene	ND		50	48.9	98	48.0	96	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	44.5	89	44.0	88	1	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	56.3	113	56.8	114	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	60.8	122	60.3	121	1	70-130/30
74-95-3	Methylene bromide	ND		50	55.7	111	54.3	109	3	70-130/30
75-09-2	Methylene chloride	ND		50	52.5	105	52.3	105	0	70-130/30
91-20-3	Naphthalene	ND		50	41.1	82	53.4	107	26	70-130/30
103-65-1	n-Propylbenzene	ND		50	49.4	99	48.4	97	2	70-130/30
100-42-5	Styrene	ND		50	48.5	97	47.0	94	3	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	46.8	94	45.3	91	3	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	53.0	106	53.7	107	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	43.7	87	42.2	84	3	70-130/30
108-88-3	Toluene	ND		50	52.1	104	51.1	102	2	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	44.9	90	57.1	114	24	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	45.0	90	51.1	102	13	70-130/30
71-55-6	1,1,1-Trichloroetbane	ND		50	49.5	99	47.8	96	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	55.6	111	54.8	110	1	70-130/30
79-01-6	Trichloroethene	ND		50	47.4	95	46.0	92	3	70-130/30
75-69-4	Trichloroflnorometbane	ND		50	49.1	98	45.4	91	8	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	50.5	101	50.9	102	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	51.5	103	50.9	102	1	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	45.8	92	45.2	90	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	57.9	116	56.6	113	2	70-130/30
75-01-4	Vinyl chloride	ND		50	46.1	92	43.8	88	5	70-130/30
	m,p-Xylene	ND		100	95.5	96	92.2	92	4	70-130/30
95-47-6	o-Xylene	ND		50	46.9	94	45.8	92	2	70-130/30
1330-20-7	Xylene (total)	ND		150	142	95	138	92	3	70-130/30

* = Outside of Control Limits.

6.3.1

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC20494-1MS	V18614.D	1	05/08/13	AMY	n/a	n/a	MSV731
MC20494-1MSD	V18615.D	1	05/08/13	AMY	n/a	n/a	MSV731
MC20494-1	V18605.D	1	05/08/13	AMY	n/a	n/a	MSV731

The QC reported here applies to the following samples: Method: SW846 8260B

MC20494-1, MC20494-2

CAS No.	Surrogate Recoveries	MS	MSD	MC20494-1	Limits
1868-53-7	Dibromofluoromethane	89%	88%	93%	70-130%
2037-26-5	Toluene-D8	97%	96%	94%	70-130%
460-00-4	4-Bromofluorobenzene	89%	89%	88%	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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV731-CC704	Injection Date:	05/08/13
Lab File ID:	V18593.D	Injection Time:	07:58
Instrument ID:	GCMSV	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	633561	6.54	948082	7.73	489340	11.07	552960	13.28	139667	3.49
Upper Limit [a]	1267122	7.04	1896164	8.23	978680	11.57	1105920	13.78	279334	3.99
Lower Limit [b]	316781	6.04	474041	7.23	244670	10.57	276480	12.78	69834	2.99
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV731-BS	645532	6.55	980598	7.73	502852	11.07	561184	13.28	151060	3.50
MSV731-BS1	669156	6.55	1019049	7.73	508218	11.07	569370	13.28	157829	3.50
MSV731-MB	626242	6.54	970237	7.73	503123	11.07	550001	13.28	151718	3.49
ZZZZZZ	602454	6.55	956213	7.73	495168	11.07	544081	13.28	148732	3.50
ZZZZZZ	596734	6.55	935211	7.73	487198	11.07	533351	13.28	121192	3.50
ZZZZZZ	569923	6.55	895226	7.73	469639	11.07	513364	13.29	124734	3.50
ZZZZZZ	562705	6.55	888291	7.74	467139	11.07	512712	13.29	138159	3.50
ZZZZZZ	578669	6.56	918016	7.74	487429	11.07	533756	13.29	143834	3.50
MC20494-2	521691	6.55	830316	7.73	443250	11.07	478111	13.29	116447	3.49
MC20494-1	516067	6.55	822705	7.74	440267	11.07	481644	13.29	125992	3.50
ZZZZZZ	489027	6.55	781609	7.73	421684	11.07	457168	13.29	128175	3.50
ZZZZZZ	476396	6.55	765518	7.73	412383	11.07	446052	13.29	120766	3.49
ZZZZZZ	481227	6.55	776029	7.74	418916	11.08	453849	13.29	109381	3.50
ZZZZZZ	459765	6.56	745016	7.74	405670	11.08	437823	13.29	102451	3.50
ZZZZZZ	465295	6.56	742346	7.74	405431	11.08	429052	13.29	100337	3.50
ZZZZZZ	477460	6.55	764175	7.74	420307	11.08	451735	13.29	103660	3.49
ZZZZZZ	458852	6.56	742942	7.74	409841	11.08	434599	13.29	103834	3.50
MC20494-1MS	537154	6.55	785466	7.74	424032	11.08	487887	13.29	113185	3.49
MC20494-1MSD	554717	6.55	811637	7.74	440264	11.08	496448	13.29	119877	3.49

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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenne, 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
MC20494-1	V18605.D	93.0	94.0	88.0
MC20494-2	V18604.D	92.0	94.0	89.0
MC20494-1MS	V18614.D	89.0	97.0	89.0
MC20494-1MSD	V18615.D	88.0	96.0	89.0
MSV731-BS1	V18595.D	84.0	90.0	89.0
MSV731-MB	V18598.D	87.0	92.0	88.0

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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32991-MB	W12066.D	1	05/09/13	KR	05/07/13	OP32991	MSW558

The QC reported here applies to the following samples: Method: SW846 8270C

MC20494-1

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	0.38	ng/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ng/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
62-53-3	Aniline	ND	10	0.64	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.20	ng/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
100-51-6	Benzyl Alcohol	ND	10	0.57	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.92	ug/l	
106-47-8	4-Chloroaniline	ND	10	0.25	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.21	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.23	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.13	ug/l	
7005-72-3	4-Chlorophenyl pheuyl ether	ND	5.0	0.20	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.65	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	0.68	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	0.64	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.50	ug/l	
132-64-9	Dibenzofuran	ND	2.0	0.16	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	0.39	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.49	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.30	ug/l	

Method Blank Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32991-MB	W12066.D	1	05/09/13	KR	05/07/13	OP32991	MSW558

The QC reported here applies to the following samples: Method: SW846 8270C

MC20494-1

CAS No.	Compound	Result	RL	MDL	Units	Q
77-47-4	Hexachlorocyclopentadiene	ND	10	2.5	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.44	ug/l	
78-59-1	Isophorone	ND	5.0	0.20	ug/l	
88-74-4	2-Nitroaniline	ND	10	0.28	ug/l	
99-09-2	3-Nitroaniline	ND	10	0.50	ug/l	
100-01-6	4-Nitroaniline	ND	10	4.3	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.25	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.81	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.54	ug/l	
110-86-1	Pyridine	ND	10	0.52	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	49%	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	84%	30-130%
321-60-8	2-Fluorobiphenyl	83%	30-130%
1718-51-0	Terphenyl-d14	94%	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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32992-MB	I83247.D	1	05/10/13	NS	05/07/13	OP32992	MSI3092

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC20494-1

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	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	51%	15-110%
4165-62-2	Phenol-d5	37%	15-110%
118-79-6	2,4,6-Tribromophenol	76%	15-110%
4165-60-0	Nitrobenzene-d5	91%	30-130%
321-60-8	2-Fluorobiphenyl	75%	30-130%
1718-51-0	Terphenyl-d14	78%	30-130%

Blank Spike Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32991-BS	W12067.D	1	05/09/13	KR	05/07/13	OP32991	MSW558

The QC reported here applies to the following samples: Method: SW846 8270C

MC20494-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	72.4	72	30-130
95-57-8	2-Chlorophenol	100	75.3	75	30-130
59-50-7	4-Chloro-3-methyl phenol	100	76.2	76	30-130
120-83-2	2,4-Dichlorophenol	100	85.1	85	30-130
105-67-9	2,4-Dimethylphenol	100	72.8	73	30-130
51-28-5	2,4-Dinitrophenol	100	88.7	89	30-130
534-52-1	4,6-Dinitro-o-cresol	100	81.2	81	30-130
95-48-7	2-Methylphenol	100	65.1	65	30-130
	3&4-Methylphenol	200	120	60	30-130
88-75-5	2-Nitrophenol	100	85.6	86	30-130
100-02-7	4-Nitrophenol	100	38.3	38	30-130
87-86-5	Pentachlorophenol	100	81.9	82	30-130
108-95-2	Phenol	100	36.5	37	30-130
95-95-4	2,4,5-Trichlorophenol	100	87.3	87	30-130
88-06-2	2,4,6-Trichlorophenol	100	88.7	89	30-130
62-53-3	Aniline	50	29.6	59	40-140
101-55-3	4-Bromophenyl phenyl ether	50	46.5	93	40-140
85-68-7	Butyl benzyl phthalate	50	49.2	98	40-140
100-51-6	Benzyl Alcohol	50	34.6	69	40-140
91-58-7	2-Chloronaphthalene	100	89.4	89	40-140
106-47-8	4-Chloroaniline	50	42.1	84	40-140
111-91-1	bis(2-Chloroethoxy)methane	50	34.9	70	40-140
111-44-4	bis(2-Chloroethyl)ether	50	43.3	87	40-140
108-60-1	bis(2-Chloroisopropyl)ether	50	52.5	105	40-140
7005-72-3	4-Chlorophenyl phenyl ether	50	48.0	96	40-140
122-66-7	1,2-Diphenylhydrazine	50	44.7	89	40-140
121-14-2	2,4-Dinitrotoluene	100	99.6	100	40-140
606-20-2	2,6-Dinitrotoluene	100	96.3	96	40-140
91-94-1	3,3'-Dichlorobenzidine	50	44.2	88	40-140
132-64-9	Dibenzofuran	50	45.7	91	40-140
84-74-2	Di-n-butyl phthalate	50	47.1	94	40-140
117-84-0	Di-n-octyl phthalate	50	48.8	98	40-140
84-66-2	Diethyl phthalate	50	46.3	93	40-140
131-11-3	Dimethyl phthalate	50	33.7	67	40-140
117-81-7	bis(2-Ethylhexyl)phthalate	50	48.7	97	40-140
118-74-1	Hexachlorobenzene	100	102	102	40-140

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32991-BS	W12067.D	1	05/09/13	KR	05/07/13	OP32991	MSW558

The QC reported here applies to the following samples: Method: SW846 8270C

MC20494-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
77-47-4	Hexachlorocyclopentadiene	100	55.6	56	40-140
67-72-1	Hexachloroethane	100	67.1	67	40-140
78-59-1	Isophorone	100	90.1	90	40-140
88-74-4	2-Nitroaniline	50	46.1	92	40-140
99-09-2	3-Nitroaniline	50	44.6	89	40-140
100-01-6	4-Nitroaniline	50	46.5	93	40-140
98-95-3	Nitrobenzene	100	91.5	92	40-140
62-75-9	n-Nitrosodimethylamine	50	27.7	55	40-140
621-64-7	N-Nitroso-di-n-propylamine	50	44.5	89	40-140
86-30-6	N-Nitrosodiphenylamine	50	20.3	41	40-140
110-86-1	Pyridine	50	20.4	41	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	50%	15-110%
4165-62-2	Phenol-d5	35%	15-110%
118-79-6	2,4,6-Tribromophenol	88%	15-110%
4165-60-0	Nitrobenzene-d5	84%	30-130%
321-60-8	2-Fluorobiphenyl	87%	30-130%
1718-51-0	Terphenyl-d14	93%	30-130%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32992-BS	183248.D	1	05/10/13	NS	05/07/13	OP32992	MSI3092

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC20494-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	40.5	81	40-140
208-96-8	Acenaphthylene	50	30.9	62	40-140
120-12-7	Anthracene	50	42.6	85	40-140
56-55-3	Benzo(a)anthracene	50	44.8	90	40-140
50-32-8	Benzo(a)pyrene	50	35.2	70	40-140
205-99-2	Benzo(b)fluoranthene	50	39.9	80	40-140
191-24-2	Benzo(g,h,i)perylene	50	43.2	86	40-140
207-08-9	Benzo(k)fluoranthene	50	40.3	81	40-140
218-01-9	Chrysene	50	45.3	91	40-140
53-70-3	Dibenzo(a,h)anthracene	50	41.4	83	40-140
206-44-0	Fluoranthene	50	45.4	91	40-140
86-73-7	Fluorene	50	39.3	79	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	50	39.5	79	40-140
90-12-0	1-Methylnaphthalene	50	38.2	76	40-140
91-57-6	2-Methylnaphthalene	50	65.2	130	40-140
85-01-8	Phenanthrene	50	43.5	87	40-140
129-00-0	Pyrene	50	45.5	91	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	53%	15-110%
4165-62-2	Phenol-d5	37%	15-110%
118-79-6	2,4,6-Tribromophenol	81%	15-110%
4165-60-0	Nitrobenzene-d5	91%	30-130%
321-60-8	2-Fluorobiphenyl	72%	30-130%
1718-51-0	Terphenyl-d14	82%	30-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32991-MS	W12078.D	1	05/10/13	KR	05/07/13	OP32991	MSW558
OP32991-MSD	W12079.D	1	05/10/13	KR	05/07/13	OP32991	MSW558
MC20494-1	W12080.D	1	05/10/13	KR	05/07/13	OP32991	MSW558

The QC reported here applies to the following samples: Method: SW846 8270C

MC20494-1

CAS No.	Compound	MC20494-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		112	83.8	75	80.9	74	4	30-130/20
95-57-8	2-Chlorophenol	ND		112	73.3	65	79.7	73	8	30-130/20
59-50-7	4-Chloro-3-methyl phenol	ND		112	82.2	73	80.9	74	2	30-130/20
120-83-2	2,4-Dichlorophenol	ND		112	85.4	76	91.6	83	7	30-130/20
105-67-9	2,4-Dimethylphenol	ND		112	65.9	59	71.5	65	8	30-130/20
51-28-5	2,4-Dinitrophenol	ND		112	91.2	81	90.6	82	1	30-130/20
534-52-1	4,6-Dinitro-o-cresol	ND		112	89.1	79	87.1	79	2	30-130/20
95-48-7	2-Methylphenol	ND		112	64.5	57	65.4	60	1	30-130/20
	3&4-Methylphenol	ND		225	122	54	128	58	5	30-130/20
88-75-5	2-Nitrophenol	ND		112	83.8	75	90.2	82	7	30-130/20
100-02-7	4-Nitrophenol	ND		112	42.8	38	38.9	35	10	30-130/20
87-86-5	Pentachlorophenol	ND		112	93.7	83	86.0	78	9	30-130/20
108-95-2	Phenol	ND		112	39.2	35	37.8	34	4	30-130/20
95-95-4	2,4,5-Trichlorophenol	ND		112	94.9	84	94.4	86	1	30-130/20
88-06-2	2,4,6-Trichlorophenol	ND		112	93.6	83	95.4	87	2	30-130/20
62-53-3	Aniline	ND		56.2	26.7	48	30.3	55	13	40-140/20
101-55-3	4-Bromophenyl phenyl ether	ND		56.2	47.3	84	47.8	87	1	40-140/20
85-68-7	Butyl benzyl phthalate	ND		56.2	49.2	88	50.9	93	3	40-140/20
100-51-6	Benzyl Alcohol	ND		56.2	31.4	56	34.3	62	9	40-140/20
91-58-7	2-Chloronaphthalene	ND		112	90.4	80	93.5	85	3	40-140/20
106-47-8	4-Chloroaniline	ND		56.2	37.4	67	42.0	76	12	40-140/20
111-91-1	bis(2-Chloroethoxy)methane	ND		56.2	32.4	58	35.3	64	9	40-140/20
111-44-4	bis(2-Chloroethyl)ether	ND		56.2	40.4	72	44.8	82	10	40-140/20
108-60-1	bis(2-Chloroisopropyl)ether	ND		56.2	48.1	86	52.9	96	10	40-140/20
7005-72-3	4-Chlorophenyl phenyl ether	ND		56.2	49.8	89	49.9	91	0	40-140/20
122-66-7	1,2-Diphenylhydrazine	ND		56.2	45.5	81	46.0	84	1	40-140/20
121-14-2	2,4-Dinitrotoluene	ND		112	103	92	104	95	1	40-140/20
606-20-2	2,6-Dinitrotoluene	ND		112	98.7	88	101	92	2	40-140/20
91-94-1	3,3'-Dichlorobenzidine	ND		56.2	41.7	74	43.3	79	4	40-140/20
132-64-9	Dibenzofuran	ND		56.2	46.9	83	47.4	86	1	40-140/20
84-74-2	Di-n-butyl phthalate	ND		56.2	47.3	84	47.3	86	0	40-140/20
117-84-0	Di-n-octyl phthalate	ND		56.2	49.1	87	50.6	92	3	40-140/20
84-66-2	Diethyl phthalate	ND		56.2	49.1	87	49.9	91	2	40-140/20
131-11-3	Dimethyl phthalate	ND		56.2	47.0	84	46.8	85	0	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	ND		56.2	48.4	86	50.4	92	4	40-140/20
118-74-1	Hexachlorobenzene	ND		112	107	95	109	99	2	40-140/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32991-MS	W12078.D	1	05/10/13	KR	05/07/13	OP32991	MSW558
OP32991-MSD	W12079.D	1	05/10/13	KR	05/07/13	OP32991	MSW558
MC20494-1	W12080.D	1	05/10/13	KR	05/07/13	OP32991	MSW558

The QC reported here applies to the following samples: Method: SW846 8270C

MC20494-1

CAS No.	Compound	MC20494-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
77-47-4	Hexachlorocyclopentadiene	ND		112	55.8	50	64.4	59	14	40-140/20
67-72-1	Hexachloroethane	ND		112	71.4	64	82.5	75	14	40-140/20
78-59-1	Isophorone	ND		112	89.1	79	94.0	86	5	40-140/20
88-74-4	2-Nitroaniline	ND		56.2	48.6	87	49.1	89	1	40-140/20
99-09-2	3-Nitroaniline	ND		56.2	44.3	79	46.1	84	4	40-140/20
100-01-6	4-Nitroaniline	ND		56.2	47.1	84	47.7	87	1	40-140/20
98-95-3	Nitrobenzene	ND		112	83.1	74	93.7	85	12	40-140/20
62-75-9	n-Nitrosodimethylamine	ND		56.2	26.2	47	28.9	53	10	40-140/20
621-64-7	N-Nitroso-di-n-propylamine	ND		56.2	42.1	75	45.3	82	7	40-140/20
86-30-6	N-Nitrosodiphenylamine	ND		56.2	20.7	37* [a]	20.8	38* [a]	0	40-140/20
110-86-1	Pyridine	ND		56.2	18.4	33* [a]	23.1	42	23* [b]	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC20494-1	Limits
367-12-4	2-Fluorophenol	43%	45%	49%	15-110%
4165-62-2	Phenol-d5	32%	33%	35%	15-110%
118-79-6	2,4,6-Tribromophenol	84%	84%	91%	15-110%
4165-60-0	Nitrobenzene-d5	72%	78%	83%	30-130%
321-60-8	2-Fluorobiphenyl	78%	81%	86%	30-130%
1718-51-0	Terphenyl-d14	84%	85%	96%	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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32992-MS	I83249.D	1	05/10/13	NS	05/07/13	OP32992	MSI3092
OP32992-MSD	I83250.D	1	05/10/13	NS	05/07/13	OP32992	MSI3092
MC20494-1	I83251.D	1	05/10/13	NS	05/07/13	OP32992	MSI3092

The QC reported here applies to the following samples: Method: SW846 8270C BY SIM

MC20494-1

CAS No.	Compound	MC20494-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		56.2	41.4	74	41.7	76	1	40-140/20
208-96-8	Acenaphthylene	ND		56.2	31.5	56	31.7	58	1	40-140/20
120-12-7	Anthracene	ND		56.2	42.8	76	43.7	80	2	40-140/20
56-55-3	Benzo(a)anthracene	ND		56.2	45.1	80	44.1	80	2	40-140/20
50-32-8	Benzo(a)pyrene	ND		56.2	35.1	62	35.2	64	0	40-140/20
205-99-2	Benzo(b)fluoranthene	ND		56.2	40.0	71	38.5	70	4	40-140/20
191-24-2	Benzo(g,h,i)perylene	ND		56.2	42.5	76	43.4	79	2	40-140/20
207-08-9	Benzo(k)fluoranthene	ND		56.2	39.4	70	40.7	74	3	40-140/20
218-01-9	Chrysene	ND		56.2	44.8	80	45.2	82	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	ND		56.2	40.8	73	42.0	76	3	40-140/20
206-44-0	Fluoranthene	ND		56.2	45.5	81	45.1	82	1	40-140/20
86-73-7	Fluorene	ND		56.2	38.9	69	40.1	73	3	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		56.2	38.9	69	39.8	72	2	40-140/20
90-12-0	1-Methylnaphthalene	ND		56.2	39.0	69	39.9	73	2	40-140/20
91-57-6	2-Methylnaphthalene	ND		56.2	67.9	121	70.4	128	4	40-140/20
85-01-8	Phenanthrene	ND		56.2	43.8	78	43.9	80	0	40-140/20
129-00-0	Pyrene	ND		56.2	45.4	81	44.8	82	1	40-140/20

CAS No.	Surrogate Recoveries	MS	MSD	MC20494-1	Limits
367-12-4	2-Fluorophenol	46%	48%	51%	15-110%
4165-62-2	Phenol-d5	33%	35%	38%	15-110%
118-79-6	2,4,6-Tribromophenol	72%	75%	77%	15-110%
4165-60-0	Nitrobenzene-d5	78%	86%	88%	30-130%
321-60-8	2-Fluorobiphenyl	64%	69%	76%	30-130%
1718-51-0	Terphenyl-d14	72%	70%	77%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSI3092-CC3044	Injection Date:	05/10/13
Lab File ID:	I8323I.D	Injection Time:	11:20
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	173884	3.34	471218	4.30	233484	5.70	430749	6.93	318977	9.65	599678	11.04
Upper Limit [a]	347768	3.84	942436	4.80	466968	6.20	861498	7.43	637954	10.15	1199356	11.54
Lower Limit [b]	86942	2.84	235609	3.80	116742	5.20	215375	6.43	159489	9.15	299839	10.54

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	176173	3.34	487308	4.30	236148	5.70	414973	6.93	318731	9.65	597182	11.04
ZZZZZZ	165395	3.34	455754	4.30	226482	5.70	401437	6.93	301902	9.65	577756	11.04
ZZZZZZ	146608	3.33	404707	4.30	206827	5.69	367900	6.92	276855	9.64	510124	11.04
ZZZZZZ	168670	3.34	468756	4.30	235711	5.70	408486	6.92	303096	9.64	566438	11.04
ZZZZZZ	171361	3.34	462326	4.30	258797	5.70	412778	6.93	306506	9.65	571525	11.05
ZZZZZZ	151114	3.34	414442	4.30	209175	5.70	368714	6.93	272138	9.65	512660	11.04
ZZZZZZ	142578	3.34	389243	4.30	197056	5.70	348174	6.92	259559	9.64	488941	11.04
ZZZZZZ	157643	3.34	441168	4.30	219679	5.70	392709	6.92	293258	9.64	544795	11.04
ZZZZZZ	140217	3.34	381087	4.30	200857	5.70	360360	6.92	273738	9.64	516947	11.04
OP33007-MB	184352	3.34	513104	4.30	266011	5.69	473449	6.93	366010	9.65	649079	11.04
OP33007-BS	166240	3.34	461986	4.30	239504	5.70	439385	6.93	337296	9.65	604473	11.05
ZZZZZZ	157303	3.34	435745	4.30	222354	5.69	400406	6.92	303283	9.64	565128	11.04
OP32992-MB	210696	3.33	580823	4.30	302077	5.69	544034	6.93	427628	9.65	786242	11.04
OP32992-BS	221174	3.33	597822	4.31	313170	5.70	558072	6.94	440143	9.65	765345	11.04
OP32992-MS	199629	3.33	543741	4.30	286704	5.69	515459	6.93	396752	9.65	697685	11.04
OP32992-MSD	247226	3.34	665032	4.31	350263	5.70	630680	6.94	479325	9.66	839577	11.05
MC20494-1	183373	3.34	507707	4.30	257986	5.70	456310	6.92	339154	9.65	627500	11.04
ZZZZZZ	148475	3.34	411213	4.30	215268	5.69	390300	6.92	300544	9.64	546436	11.04
OP33014-MB	152380	3.34	426642	4.30	212692	5.69	373779	6.92	279254	9.64	521481	11.04
OP33014-BS	146628	3.34	405880	4.30	210607	5.70	374136	6.93	288431	9.65	518300	11.04
OP33014-BSD	155953	3.34	429043	4.30	220517	5.70	393611	6.93	299278	9.65	528472	11.04
OP33014-MS	158400	3.34	435040	4.30	222041	5.70	403378	6.93	303284	9.65	524957	11.04
OP33014-MSD	188236	3.33	500931	4.30	257566	5.69	458743	6.93	348051	9.65	608918	11.04
ZZZZZZ	179876	3.34	486833	4.30	263924	5.69	423762	6.93	330062	9.65	600127	11.04

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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSW558-CC546	Injection Date:	05/09/13
Lab File ID:	W12062.D	Injection Time:	18:14
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	59794	3.31	226773	4.35	146780	5.85	263603	7.14	325653	9.97	306922	11.52
Upper Limit [a]	119588	3.81	453546	4.85	293560	6.35	527206	7.64	651306	10.47	613844	12.02
Lower Limit [b]	29897	2.81	113387	3.85	73390	5.35	131802	6.64	162827	9.47	153461	11.02
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
OP32879-MB	63086	3.31	230032	4.35	148468	5.85	266822	7.14	312222	9.96	293835	11.52
OP32879-BS	68584	3.31	255784	4.35	165070	5.85	289845	7.14	353238	9.97	324517	11.52
OP32991-MB	80758	3.31	297409	4.35	195312	5.85	346672	7.14	417880	9.96	398542	11.52
OP32991-BS	81556	3.31	299503	4.35	195635	5.85	350494	7.15	438351	9.97	408787	11.52
OP32879-MS	74962	3.31	278907	4.35	181080	5.85	323970	7.14	395505	9.97	357440	11.52
OP32879-MSD	69687	3.31	259783	4.35	170134	5.85	304050	7.14	380220	9.96	350143	11.52
MC20133-9	70946	3.31	266004	4.35	172785	5.85	310899	7.14	374563	9.96	362667	11.52
ZZZZZZ	69793	3.31	260192	4.35	168381	5.85	301792	7.14	364972	9.96	354185	11.52
ZZZZZZ	69964	3.31	261539	4.35	169728	5.85	305399	7.14	365377	9.96	351862	11.52
ZZZZZZ	77715	3.31	292254	4.35	194151	5.85	349257	7.14	416209	9.96	402161	11.52
OP32991-MS	82274	3.31	303972	4.35	198548	5.85	356442	7.15	455801	9.97	424037	11.52
OP32991-MSD	82995	3.31	303786	4.35	198872	5.85	356180	7.15	445162	9.97	423031	11.52
MC20494-1	82984	3.31	306765	4.35	201779	5.85	362414	7.14	434377	9.97	438197	11.52
ZZZZZZ	79452	3.31	301811	4.35	198224	5.85	349219	7.14	422496	9.96	400416	11.52
ZZZZZZ	87716	3.31	326407	4.35	212712	5.85	383882	7.15	458578	9.97	434319	11.52

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphtbalene-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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 Sonth 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
MC20494-1	W12080.D	49.0	35.0	91.0	83.0	86.0	96.0
OP32991-BS	W12067.D	50.0	35.0	88.0	84.0	87.0	93.0
OP32991-MB	W12066.D	49.0	34.0	85.0	84.0	83.0	94.0
OP32991-MS	W12078.D	43.0	32.0	84.0	72.0	78.0	84.0
OP32991-MSD	W12079.D	45.0	33.0	84.0	78.0	81.0	85.0

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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC20494-1	I83251.D	51.0	38.0	77.0	88.0	76.0	77.0
OP32992-BS	I83248.D	53.0	37.0	81.0	91.0	72.0	82.0
OP32992-MB	I83247.D	51.0	37.0	76.0	91.0	75.0	78.0
OP32992-MS	I83249.D	46.0	33.0	72.0	78.0	64.0	72.0
OP32992-MSD	I83250.D	48.0	35.0	75.0	86.0	69.0	70.0

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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33031-MB	BB47695.D	1	05/09/13	CZ	05/08/13	OP33031	GBB2861

The QC reported here applies to the following samples: Method: SW846 8011

MC20494-1, MC20494-3

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)	93%	36-173%
460-00-4	Bromofluorobenzeue (S)	101%	36-173%

Blank Spike Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Projeet: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Bateh	Analytical Batch
OP33031-BS	BB47696.D	1	05/09/13	CZ	05/08/13	OP33031	GBB2861

The QC reported here applies to the following samples: Method: SW846 8011

MC20494-1, MC20494-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
96-12-8	1,2-Dihromo-3-chloropropane	0.071	0.062	87	60-140
106-93-4	1,2-Dibromoethane	0.071	0.074	104	60-140

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	Bromofluorobenzene (S)	88%	36-173%
460-00-4	Bromofluorobenzene (S)	101%	36-173%

8.2.1

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP33031-MS	BB47697.D	1	05/09/13	CZ	05/08/13	OP33031	GBB2861
OP33031-MSD	BB47698.D	1	05/10/13	CZ	05/08/13	OP33031	GBB2861
MC20494-1	BB47699.D	1	05/10/13	CZ	05/08/13	OP33031	GBB2861

The QC reported here applies to the following samples: Method: SW846 8011

MC20494-1, MC20494-3

CAS No.	Compound	MC20494-1 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		0.0869	0.063	73	0.059	69	7	64-141/29
106-93-4	1,2-Dibromoethane	ND		0.0869	0.086	99	0.086	100	0	63-163/27

CAS No.	Surrogate Recoveries	MS	MSD	MC20494-1	Limits
460-00-4	Bromofluorobenzene (S)	77%	78%	82%	36-173%
460-00-4	Bromofluorobenzene (S)	81%	86%	90%	36-173%

8.3.1

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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]
MC20494-1	BB47699.D	82.0	90.0
MC20494-3	BB47700.D	80.0	86.0
OP33031-BS	BB47696.D	88.0	101.0
OP33031-MB	BB47695.D	93.0	101.0
OP33031-MS	BB47697.D	77.0	81.0
OP33031-MSD	BB47698.D	78.0	86.0

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: MC20494
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	GBB2861-ICC2861	Injection Date:	05/09/13
Lab File ID:	BB47690.D	Injection Time:	20:19
Instrument ID:	GCBB	Method:	SW846 8011

	S1 [a] RT	S1 [b] RT
Check Std	4.92	5.40

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 [a] RT	S1 [b] RT
ZZZZZZ	BB47693A.D	05/09/13	21:49	4.93	5.40
ZZZZZZ	BB47693B.D	05/09/13	21:49	4.93	5.40
OP33031-MB	BB47695.D	05/09/13	22:52	4.92	5.40
OP33031-BS	BB47696.D	05/09/13	23:24	4.92	5.40
OP33031-MS	BB47697.D	05/09/13	23:58	4.92	5.40
OP33031-MSD	BB47698.D	05/10/13	00:32	4.92	5.40
MC20494-1	BB47699.D	05/10/13	01:05	4.92	5.40
MC20494-3	BB47700.D	05/10/13	01:39	4.92	5.40
ZZZZZZ	BB47701.D	05/10/13	02:12	4.92	5.40
ZZZZZZ	BB47702.D	05/10/13	02:45	4.92	5.40
OP33032-MS	BB47703.D	05/10/13	03:18	4.92	5.40
OP33032-MSD	BB47704.D	05/10/13	03:51	4.92	5.40

Surrogate Compounds

S1 = Bromofluorobenzene (S)

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

Data Review Forms & Laboratory Analytical Reports

From

Wells Not Included

In

Interim Groundwater Monitoring Program

Sampled at the Request of the

Illinois EPA

Note: This SDG represents data for wells not part of the Interim Groundwater Monitoring Program, sampled at the request of IEPA.

Roxana Groundwater – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19575

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/17/2013

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

Sample Identification	Sample Identification
ROST4PZA-ROX-040413	ROST4PZA-ROX-040413-EB
ROST4PZF-ROX-040413	ROST4PZG-ROX-040413
TB-ROX-040413-HCL	

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 recoveries were outside evaluation criteria. VOC MS/MSD recoveries were outside evaluation criteria in sample ROST4PZG-ROX-040413. Additionally, the initial 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 0.2ºC, which is outside the 4ºC ± 2ºC criteria. Samples were received in good condition; therefore, no qualification of data was required. Although not listed on the COC, the laboratory received two VOAs labeled TB-ROX-040413-ST. On April 8, 2013, URS confirmed TB-ROX-040413-ST did not require analysis; 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

Note: This SDG represents data for wells not part of the Interim Groundwater Monitoring Program, sampled at the request of IEPA.

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSH1996-BS/BSD	VOCs	Acetone	**134/137**	2	70-130/25
MSH1996-BS/BSD	VOCs	Acrolein	**54/55**	3	70-130/25

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 MSH1996-BS was associated with the trip blank and equipment blank quality control samples and was not qualified.

Sample ID	Parameter	Analyte	Qualification
ROST4PZA-ROX-040413	VOCs	Acrolein	**UJ**
ROST4PZF-ROX-040413	VOCs	Acrolein	**UJ**
ROST4PZG-ROX-040413	VOCs	Acrolein	**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 ROST4PZG-ROX-040413 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
ROST4PZG-ROX-040413	VOCs	Acetone	**0/0**	NA	70-130/30
ROST4PZG-ROX-040413	VOCs	2-Chloroethyl vinyl ether	**5/4**	4	70-130/30
ROST4PZG-ROX-040413	VOCs	Chloromethane	**132**/98	29	70-130/30
ROST4PZG-ROX-040413	VOCs	Styrene	**49/49**	0	70-130/30
ROST4PZG-ROX-040413	VOCs	Vinyl acetate	**512/494**	4	70-130/30

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.

Note: This SDG represents data for wells not part of the Interim Groundwater Monitoring Program, sampled at the request of IEPA.

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.

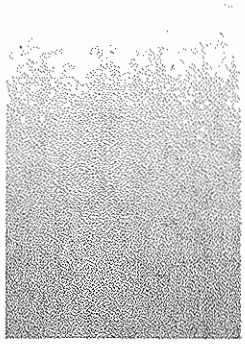
12.0 Additional Qualifications

Were additional qualifications applied?

No, although the initial calibration verification for acrolein exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of data was required.

New England ACCUTEST LABORATORIES

05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19575

Sampling Date: 04/04/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **41**

Reviewed on 5/17/2013

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

Sample Summary

Shell Oil

Job No: MC19575

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
MC19575-1	04/04/13	10:55	MMLR	04/05/13	AQ	Ground Water	ROST4PZA-ROX-040413
MC19575-2	04/04/13	11:20	MMLR	04/05/13	AQ	Equipment Blank	ROST4PZA-ROX-040413-EB
MC19575-3	04/04/13	13:25	MMLR	04/05/13	AQ	Ground Water	ROST4PZF-ROX-040413
MC19575-4	04/04/13	14:30	MMLR	04/05/13	AQ	Ground Water	ROST4PZG-ROX-040413
MC19575-4D	04/04/13	14:30	MMLR	04/05/13	AQ	Water Dup/MSD	ROST4PZG-ROX-040413
MC19575-4S	04/04/13	14:30	MMLR	04/05/13	AQ	Water Matrix Spike	ROST4PZG-ROX-040413
MC19575-5	04/04/13	00:00	MMLR	04/05/13	AQ	Trip Blank Water	TB-ROX-040413-HCL

ACCUTEST LABORATORIES

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SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19575
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central	**Report Date**	4/24/2013 9:33:38 AM

4 Sample(s) and 1 Trip Blank(s) were collected on 04/04/2013 and were received at Accutest on 04/05/2013 properly preserved, at 0.2 Deg. C and intact. These Samples received an Accutest job number of MC19575. 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:** MSH1996

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19575-4MS, MC19575-4MSD were used as the QC samples indicated.
- Initial calibration verification MSH1993-ICV1993 for acrolein exceeds 50% Difference. Acrolein is within criteria in continuing calibration check standard MSH1996-CC1993.
- BS/BSD Recovery(s) for Acetone, Acrolein are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, Acetone, Chloromethane, Styrene, 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, Acetone, Styrene are outside control limits. Outside control limits due to possible matrix interference. Refer to Blank Spike.

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(MC19575).

Summary of Hits

Job Number: MC19575
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/04/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19575-1	ROST4PZA-ROX-040413					
Benzene		208	0.50	0.24	ug/l	SW846 8260B
Carbon disnlfide		0.61 J	5.0	0.61	ug/l	SW846 8260B
Ethylbenzene		2.1	1.0	0.51	ug/l	SW846 8260B
Methyl Tert Butyl Ether		91.7	1.0	0.41	ug/l	SW846 8260B
Naphthalene		2.2 J	5.0	0.50	ug/l	SW846 8260B
Toluene		10.6	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		4.4 J	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		3.3 J	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		94.9	1.0	0.73	ug/l	SW846 8260B
o-Xylene		92.1	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		187	1.0	0.58	ug/l	SW846 8260B
MC19575-2	ROST4PZA-ROX-040413-EB					
No hits reported in this sample.						
MC19575-3	ROST4PZF-ROX-040413					
Benzene		150	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		3.6 J	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		1.8 J	5.0	0.55	ug/l	SW846 8260B
Chloroethane		3.7	2.0	0.50	ug/l	SW846 8260B
Chloromethane		0.98 J	2.0	0.73	ug/l	SW846 8260B
Ethylbenzene		393	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		19.2	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		1.9 J	5.0	0.57	ug/l	SW846 8260B
4-Methyl-2-pentanone (MIBK)		9.2	5.0	2.9	ug/l	SW846 8260B
Naphthalene		110	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		26.8	5.0	0.58	ug/l	SW846 8260B
Toluene		21.4	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		139	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		29.5	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		767	1.0	0.73	ug/l	SW846 8260B
o-Xylene		23.7	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		791	1.0	0.58	ug/l	SW846 8260B
MC19575-4	ROST4PZG-ROX-040413					
Benzene		22.8	0.50	0.24	ug/l	SW846 8260B
2-Butanone (MEK)		37.7	10	2.4	ug/l	SW846 8260B
sec-Butylbenzene		2.1 J	5.0	0.55	ug/l	SW846 8260B
Chloroethane		9.5	2.0	0.50	ug/l	SW846 8260B
Chloromethane		1.6 J	2.0	0.73	ug/l	SW846 8260B

Summary of Hits

Job Number: MC19575
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/04/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethylbenzene		22.2	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		3.2 J	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		1.1 J	5.0	0.57	ug/l	SW846 8260B
Naphthalene		2.4 J	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		8.0	5.0	0.58	ug/l	SW846 8260B
Toluene		2.7	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		10.3	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		6.5	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		21.4	1.0	0.73	ug/l	SW846 8260B
o-Xylene		6.1	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		27.6	1.0	0.58	ug/l	SW846 8260B

MC19575-5 TB-ROX-040413-HCL

No hits reported in this sample.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

4.1

Client Sample ID:	ROST4PZA-ROX-040413		
Lab Sample ID:	MC19575-1	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60390.D	1	04/16/13	GK	n/a	n/a	MSH1996
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	208	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	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)	5.2	10	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	0.61	5.0	0.61	ug/l	J
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:	ROST4PZA-ROX-040413		
Lab Sample ID:	MC19575-1	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	2.1	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	91.7	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	2.2	5.0	0.50	ug/l	J
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	ng/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	10.6	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	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	ng/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	0.85	ug/l	
95-63-6	1,2,4-Trimethylbenzene	4.4	5.0	0.35	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	3.3	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	94.9	1.0	0.73	ug/l	
95-47-6	o-Xylene	92.1	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	187	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:	ROST4PZA-ROX-040413		
Lab Sample ID:	MC19575-1	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	102%		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:	ROST4PZA-ROX-040413-EB		
Lab Sample ID:	MC19575-2	Date Sampled:	04/04/13
Matrix:	AQ - Equipment Blank	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60385.D	1	04/16/13	GK	n/a	n/a	MSH1996
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	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	10	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:	ROST4PZA-ROX-040413-EB		
Lab Sample ID:	MC19575-2	Date Sampled:	04/04/13
Matrix:	AQ - Equipment Blank	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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:	ROST4PZA-ROX-040413-EB		
Lab Sample ID:	MC19575-2	Date Sampled:	04/04/13
Matrix:	AQ - Equipment Blank	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	106%		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	

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

Report of Analysis

Client Sample ID:	ROST4PZF-ROX-040413		
Lab Sample ID:	MC19575-3	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60391.D	1	04/16/13	GK	n/a	n/a	MSH1996
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	Beuzene	150	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	10	2.4	ug/l	
104-51-8	n-Butylbenzene	3.6	5.0	0.61	ug/l	J
135-98-8	sec-Butylbenzene	1.8	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	3.7	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	0.98	2.0	0.73	ug/l	J
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-Dichloroethaue	ND	1.0	0.63	ug/l	
75-35-4	1,1-Dichloroetheue	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:	ROST4PZF-ROX-040413		
Lab Sample ID:	MC19575-3	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	393	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	19.2	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	1.9	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)	9.2	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	110	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	26.8	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	21.4	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	ng/l	
95-63-6	1,2,4-Trimethylbenzene	139	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	29.5	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	767	1.0	0.73	ug/l	
95-47-6	o-Xylene	23.7	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	791	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:	ROST4PZF-ROX-040413		
Lab Sample ID:	MC19575-3	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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:	ROST4PZG-ROX-040413		
Lab Sample ID:	MC19575-4	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60389.D	1	04/16/13	GK	n/a	n/a	MSH1996
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	U
107-13-1	Acrylonitrile	ND	5.0	3.2	ug/l	
71-43-2	Benzene	22.8	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	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)	37.7	10	2.4	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	2.1	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	9.5	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	1.6	2.0	0.73	ug/l	J
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:	ROST4PZG-ROX-040413		
Lab Sample ID:	MC19575-4	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	22.2	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	3.2	5.0	0.50	ug/l	J
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	2.4	5.0	0.50	ug/l	J
103-65-1	n-Propylbenzene	8.0	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	2.7	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	10.3	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	6.5	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	21.4	1.0	0.73	ug/l	
95-47-6	o-Xylene	6.1	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	27.6	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:	ROST4PZG-ROX-040413		
Lab Sample ID:	MC19575-4	Date Sampled:	04/04/13
Matrix:	AQ - Ground Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	99%		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	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates 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-040413-HCL		
Lab Sample ID:	MC19575-5	Date Sampled:	04/04/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	H60386.D	1	04/16/13	GK	n/a	n/a	MSH1996
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	Bromobeuzene	ND	5.0	0.62	ug/l	
74-97-5	Bromochlorometbane	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	10	2.4	ug/l	
104-51-8	n-Bntylbenzene	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	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	ng/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.95	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-ROX-040413-HCL		
Lab Sample ID:	MC19575-5	Date Sampled:	04/04/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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-Dichloropropeue	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	ng/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 componnd

Report of Analysis

Client Sample ID:	TB-ROX-040413-HCL		
Lab Sample ID:	MC19575-5	Date Sampled:	04/04/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/05/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	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		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

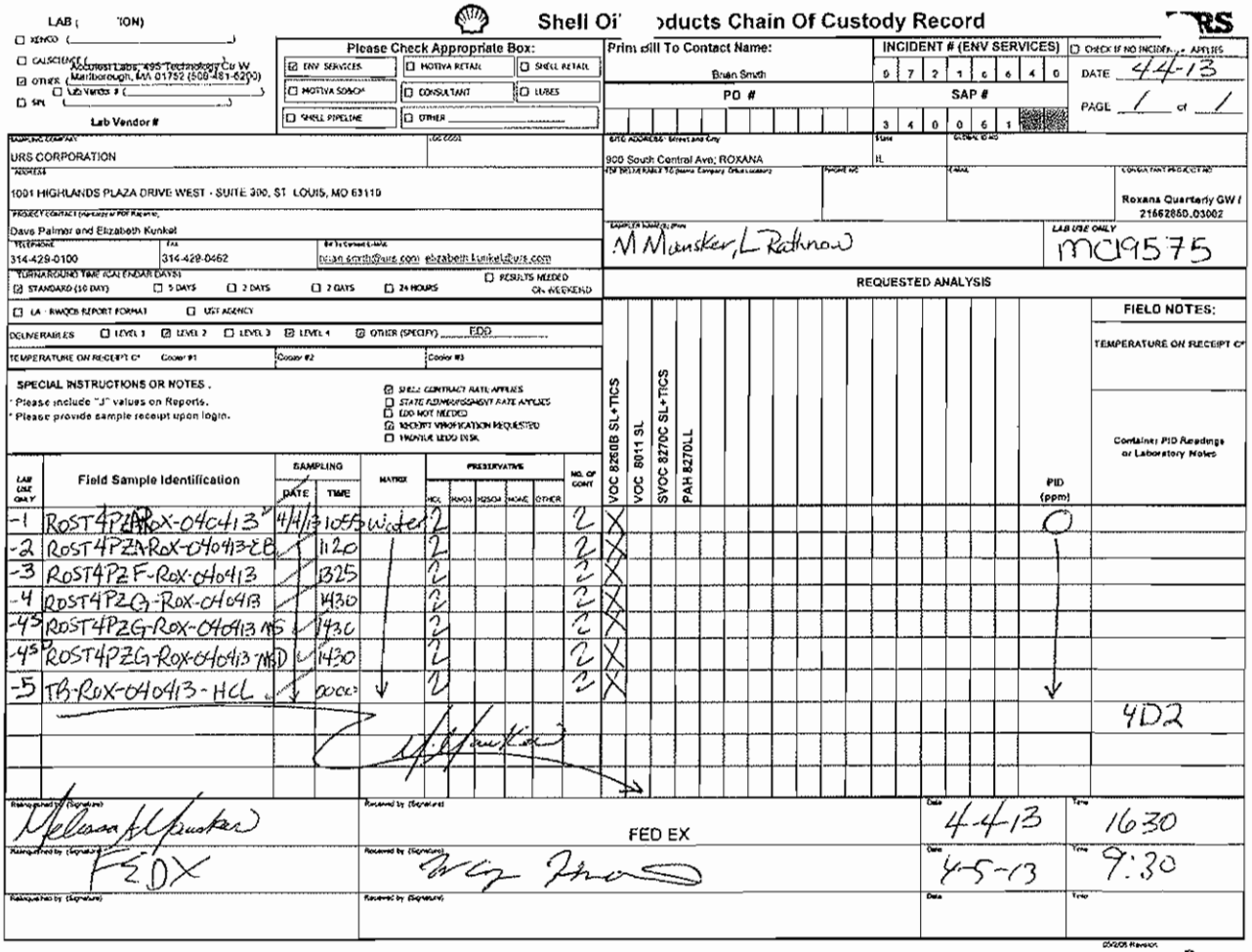
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oi[illegible]oducts Chain Of Custody Record

LAB ([illegible]TION)
☐ 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 SOMO ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Brian Smith
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 4-4-13
PAGE 1 of 1

COMPANY NAME: URS CORPORATION
JOB CODE
ADDRESS: 1001 HIGHLANDS PLAZA DRIVE WEST - SUITE 300, ST LOUIS, MO 63110
PROJECT CONTACT (Indicate on POF Report): Dave Palmer and Elizabeth Kunkel
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Be To Contact E-MAIL: brian.smith@urs.com; elizabeth.kunkel@urs.com
SITE ADDRESS - Street and City: 900 South Central Ave; ROXANA
State: IL
GLOBAL ID NO.
PROJECT NO.
E-MAIL
CONSULTANT PROJECT NO.: Roxana Quarterly GW / 21662850.03002
SAMPLER NAME(S) (Print): M Munsker, L Rathnow
LAB USE ONLY: MC19575

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
☑ NO-CONT VERIFICATION REQUESTED
☐ PROVIDE EDDS ONLY

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)	FIELD NOTES / Container PID Readings or Laboratory Notes
-1	ROST4P2A-ROX-040413	4/4/13	1055	water						2	X				0	
-2	ROST4P2A-ROX-040413-EB		1120							2	X					
-3	ROST4P2F-ROX-040413		1325							2	X					
-4	ROST4P2G-ROX-040413		1430							2	X					
-4S	ROST4P2G-ROX-040413 MS		1430							2	X					
-4D	ROST4P2G-ROX-040413 MSD		1430							2	X					
-5	TB-ROX-040413-HCL		0000							2	X					
																4D2

Relinquished by (Signature): Melissa M Munsker
Received by (Signature): FED EX
Date: 4-4-13 Time: 1630

Relinquished by (Signature): FEDX
Received by (Signature):
Date: 4-5-13 Time: 9:30

Relinquished by (Signature):
Received by (Signature):
Date: Time:

05/05 Revision
02 °C

5.1
5

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19575 **Client:** URS **Immediate Client Services Action Required:** Yes

Date / Time Received: 4/5/2013 9:30 **Delivery Method:** FedEx

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 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. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☑	☐	
3. Sufficient volume rec'd for analysis:	☑	☐	
4. Compositng instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

-6 we received 2 extra trip blank vials preserved with NA2S2O3, ID is TB-ROX-040413-ST.

5.1

5

ACCUTEST

Sample Receipt Summary - Problem Resolution

Accutest Job Number: MC19575

CSR: Jeremy Vienneau **Response Date:** 4/8/2013

Response: Client confirmed that they need the HCL trip blank analyzed only. See email in file.

5.1

MC19575: Chain of Custody
Page 3 of 3

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19575

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19575-1 Collected: 04-APR-13 10:55 By: MMLR Received: 05-APR-13 By: AF ROST4PZA-ROX-040413						
MC19575-1	SW846 8260B	16-APR-13 13:44	GK			V8260SL1
MC19575-2 Collected: 04-APR-13 11:20 By: MMLR Received: 05-APR-13 By: AF ROST4PZA-ROX-040413-EB						
MC19575-2	SW846 8260B	16-APR-13 11:26	GK			V8260SL1
MC19575-3 Collected: 04-APR-13 13:25 By: MMLR Received: 05-APR-13 By: AF ROST4PZF-ROX-040413						
MC19575-3	SW846 8260B	16-APR-13 14:12	GK			V8260SL1
MC19575-4 Collected: 04-APR-13 14:30 By: MMLR Received: 05-APR-13 By: AF ROST4PZG-ROX-040413						
MC19575-4	SW846 8260B	16-APR-13 13:16	GK			V8260SL1
MC19575-5 Collected: 04-APR-13 00:00 By: MMLR Received: 05-APR-13 By: AF TB-ROX-040413-HCL						
MC19575-5	SW846 8260B	16-APR-13 11:54	GK			V8260SL1

Accutest Internal Chain of Custody

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/05/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19575-1.1	VOC Ref #4	Gary Krasinski	04/16/13 10:25	Retrieve from Storage
MC19575-1.1	Gary Krasinski	GCMSH	04/16/13 10:25	Load on Instrument
MC19575-1.1	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-1.1	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage
MC19575-2.1	VOC Ref #4	Kerry Ryan	04/16/13 09:23	Retrieve from Storage
MC19575-2.1	Kerry Ryan	GCMSH	04/16/13 09:23	Load on Instrument
MC19575-2.1	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-2.1	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage
MC19575-3.1	VOC Ref #4	Gary Krasinski	04/16/13 10:25	Retrieve from Storage
MC19575-3.1	Gary Krasinski	GCMSH	04/16/13 10:25	Load on Instrument
MC19575-3.1	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-3.1	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage
MC19575-4.1	VOC Ref #4	Gary Krasinski	04/16/13 10:58	Retrieve from Storage
MC19575-4.1	Gary Krasinski	GCMSH	04/16/13 10:58	Load on Instrument
MC19575-4.1	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-4.1	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage
MC19575-4.2	VOC Ref #4	Gary Krasinski	04/16/13 10:25	Retrieve from Storage
MC19575-4.2	Gary Krasinski	GCMSH	04/16/13 10:25	Load on Instrument
MC19575-4.2	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-4.2	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage
MC19575-4.3	VOC Ref #4	Gary Krasinski	04/16/13 10:58	Retrieve from Storage
MC19575-4.3	Gary Krasinski	GCMSH	04/16/13 10:58	Load on Instrument
MC19575-4.3	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-4.3	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage
MC19575-4.4	VOC Ref #4	Gary Krasinski	04/16/13 10:58	Retrieve from Storage
MC19575-4.4	Gary Krasinski	GCMSH	04/16/13 10:58	Load on Instrument
MC19575-4.4	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-4.4	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage
MC19575-4.5	VOC Ref #4	Gary Krasinski	04/16/13 10:25	Retrieve from Storage
MC19575-4.5	Gary Krasinski	GCMSH	04/16/13 10:25	Load on Instrument
MC19575-4.5	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-4.5	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Retnrn to Storage
MC19575-4.6	VOC Ref #4	Gary Krasinski	04/16/13 10:25	Retrieve from Storage
MC19575-4.6	Gary Krasinski	GCMSH	04/16/13 10:25	Load on Instrument
MC19575-4.6	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-4.6	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage

Accutest Internal Chain of Custody

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/05/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19575-5.2	VOC Ref #4	Kerry Ryan	04/16/13 09:23	Retrieve from Storage
MC19575-5.2	Kerry Ryan	GCMSH	04/16/13 09:23	Load on Instrnment
MC19575-5.2	GCMSH	Kerry Ryan	04/17/13 08:51	Unload from Instrument
MC19575-5.2	Kerry Ryan	VOC Ref #4	04/17/13 08:51	Return to Storage

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New England ACCUTEST LABORATORIES

GC/MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Staudard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1996-MB	H60382.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

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	10	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	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	
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	ng/l	
563-58-6	1,1-Dichloropropene	ND	5.0	0.91	ug/l	

Method Blank Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1996-MB	H60382.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

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	

6.1.1

Method Blank Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1996-MB	H60382.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	106%	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	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1996-BS	H60379.D	1	04/16/13	GK	n/a	n/a	MSH1996
MSH1996-BSD	H60380.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	66.8	134* a	68.4	137* a	2	70-130/25
107-02-8	Acrolein	250	134	54* a	138	55* a	3	70-130/25
107-13-1	Acrylonitrile	50	36.0	72	38.1	76	6	70-130/25
71-43-2	Benzene	50	48.9	98	49.5	99	1	70-130/25
108-86-1	Bromobenzene	50	50.1	100	51.8	104	3	70-130/25
74-97-5	Bromochloromethane	50	45.5	91	47.4	95	4	70-130/25
75-27-4	Bromodichloromethane	50	51.6	103	52.9	106	2	70-130/25
75-25-2	Bromoform	50	50.0	100	50.5	101	1	70-130/25
74-83-9	Bromomethane	50	49.8	100	51.4	103	3	70-130/25
78-93-3	2-Butanone (MEK)	50	51.2	102	49.5	99	3	70-130/25
104-51-8	n-Butylbenzene	50	54.9	110	55.2	110	1	70-130/25
135-98-8	sec-Butylbenzene	50	50.6	101	51.1	102	1	70-130/25
98-06-6	tert-Butylbenzene	50	50.3	101	51.5	103	2	70-130/25
75-15-0	Carbon disulfide	50	45.9	92	45.7	91	0	70-130/25
56-23-5	Carbon tetrachloride	50	54.2	108	54.3	109	0	70-130/25
108-90-7	Chlorobenzene	50	47.9	96	48.0	96	0	70-130/25
75-00-3	Chloroethane	50	53.8	108	53.3	107	1	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	39.6	79	40.2	80	2	70-130/25
67-66-3	Chloroform	50	46.7	93	47.0	94	1	70-130/25
74-87-3	Chloromethane	50	55.0	110	55.4	111	1	70-130/25
95-49-8	o-Chlorotoluene	50	47.4	95	48.1	96	1	70-130/25
106-43-4	p-Chlorotoluene	50	50.2	100	50.5	101	1	70-130/25
124-48-1	Dibromochloromethane	50	49.2	98	50.4	101	2	70-130/25
95-50-1	1,2-Dichlorobenzene	50	48.7	97	50.2	100	3	70-130/25
541-73-1	1,3-Dichlorobenzene	50	49.3	99	50.6	101	3	70-130/25
106-46-7	1,4-Dichlorobenzene	50	49.8	100	51.6	103	4	70-130/25
75-71-8	Dichlorodifluoromethane	50	51.4	103	50.2	100	2	70-130/25
75-34-3	1,1-Dichloroethane	50	44.1	88	44.5	89	1	70-130/25
107-06-2	1,2-Dichloroethane	50	48.3	97	49.1	98	2	70-130/25
75-35-4	1,1-Dichloroethene	50	47.7	95	48.2	96	1	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	44.8	90	44.8	90	0	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	43.9	88	43.8	88	0	70-130/25
78-87-5	1,2-Dichloropropane	50	46.7	93	47.2	94	1	70-130/25
142-28-9	1,3-Dichloropropane	50	50.3	101	51.1	102	2	70-130/25
594-20-7	2,2-Dichloropropane	50	54.5	109	52.7	105	3	70-130/25
563-58-6	1,1-Dichloropropene	50	49.7	99	49.5	99	0	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1996-BS	H60379.D	1	04/16/13	GK	n/a	n/a	MSH1996
MSH1996-BSD	H60380.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

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	44.2	88	44.6	89	1	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	46.3	93	47.0	94	2	70-130/25
123-91-1	1,4-Dioxane	250	219	88	208	83	5	70-130/25
97-63-2	Ethyl methacrylate	50	43.0	86	43.9	88	2	77-137/25
100-41-4	Ethylbenzene	50	52.8	106	53.0	106	0	70-130/25
87-68-3	Hexachlorobutadiene	50	54.0	108	55.0	110	2	70-130/25
591-78-6	2-Hexanone	50	58.5	117	59.9	120	2	70-130/25
98-82-8	Isopropylbenzene	50	50.5	101	50.6	101	0	70-130/25
99-87-6	p-Isopropyltoluene	50	55.0	110	56.3	113	2	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	44.4	89	45.8	92	3	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	44.0	88	47.1	94	7	70-130/25
74-95-3	Methylene bromide	50	49.1	98	50.4	101	3	70-130/25
75-09-2	Methylene chloride	50	44.6	89	45.9	92	3	70-130/25
91-20-3	Naphthalene	50	51.1	102	52.5	105	3	70-130/25
103-65-1	n-Propylbenzene	50	49.6	99	49.8	100	0	70-130/25
100-42-5	Styrene	50	54.1	108	53.9	108	0	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	55.2	110	56.0	112	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	52.9	106	55.7	111	5	70-130/25
127-18-4	Tetrachloroethene	50	51.7	103	51.9	104	0	70-130/25
108-88-3	Toluene	50	48.0	96	48.3	97	1	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	53.5	107	55.5	111	4	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	53.9	108	55.2	110	2	70-130/25
71-55-6	1,1,1-Trichloroethane	50	49.4	99	48.6	97	2	70-130/25
79-00-5	1,1,2-Trichloroethane	50	47.1	94	48.3	97	3	70-130/25
79-01-6	Trichloroethene	50	46.9	94	46.6	93	1	70-130/25
75-69-4	Trichlorofluoromethane	50	50.4	101	49.9	100	1	70-130/25
96-18-4	1,2,3-Trichloropropane	50	47.3	95	49.3	99	4	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	52.0	104	53.0	106	2	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	51.7	103	53.0	106	2	70-130/25
108-05-4	Vinyl Acetate	50	52.7	105	53.7	107	2	70-130/25
75-01-4	Vinyl chloride	50	46.4	93	47.3	95	2	70-130/25
	m,p-Xylene	100	106	106	107	107	1	70-130/25
95-47-6	o-Xylene	50	52.0	104	52.4	105	1	70-130/25
1330-20-7	Xylene (total)	150	158	105	159	106	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1996-BS	H60379.D	1	04/16/13	GK	n/a	n/a	MSH1996
MSH1996-BSD	H60380.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	97%	70-130%
2037-26-5	Toluene-D8	104%	104%	70-130%
460-00-4	4-Bromofluorobenzene	110%	108%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19575-4MS	H60392.D	1	04/16/13	GK	n/a	n/a	MSH1996
MC19575-4MSD	H60393.D	1	04/16/13	GK	n/a	n/a	MSH1996
MC19575-4	H60389.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

CAS No.	Compound	MC19575-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	ND	0* a	ND	0* a	nc	70-130/30
107-02-8	Acrolein	ND		250	229	92	189	76	19	70-130/30
107-13-1	Acrylonitrile	ND		50	41.3	83	42.0	84	2	70-130/30
71-43-2	Benzene	22.8		50	73.4	101	74.1	103	1	70-130/30
108-86-1	Bromobenzene	ND		50	56.5	113	56.3	113	0	70-130/30
74-97-5	Bromochloromethane	ND		50	50.2	100	49.8	100	1	70-130/30
75-27-4	Bromodichloromethane	ND		50	52.9	106	50.2	100	5	70-130/30
75-25-2	Bromoform	ND		50	47.8	96	48.2	96	1	70-130/30
74-83-9	Bromomethane	ND		50	53.9	108	52.9	106	2	70-130/30
78-93-3	2-Butanone (MEK)	37.7		50	76.3	77	73.1	71	4	70-130/30
104-51-8	n-Butylbenzene	ND		50	60.1	120	59.5	119	1	70-130/30
135-98-8	sec-Butylbenzene	2.1	J	50	56.0	108	55.1	106	2	70-130/30
98-06-6	tert-Butylbenzene	ND		50	55.9	112	54.2	108	3	70-130/30
75-15-0	Carbon disulfide	ND		50	46.3	93	44.5	89	4	70-130/30
56-23-5	Carbon tetrachloride	ND		50	57.1	114	56.4	113	1	70-130/30
108-90-7	Chlorobenzene	ND		50	53.6	107	53.6	107	0	70-130/30
75-00-3	Chloroethane	9.5		50	59.5	100	59.3	100	0	70-130/30
110-75-8	2-Chloroethyl vinyl ether	ND		50	2.3	5* a	2.2	4* a	4	70-130/30
67-66-3	Chloroform	ND		50	48.9	98	48.2	96	1	70-130/30
74-87-3	Chloromethane	1.6	J	50	67.5	132* a	50.6	98	29	70-130/30
95-49-8	o-Chlorotoluene	ND		50	54.3	109	53.4	107	2	70-130/30
106-43-4	p-Chlorotoluene	ND		50	54.7	109	53.6	107	2	70-130/30
124-48-1	Dibromochloromethane	ND		50	48.9	98	49.9	100	2	70-130/30
95-50-1	1,2-Dichlorobenzeue	ND		50	54.3	109	53.7	107	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	55.1	110	54.2	108	2	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	54.3	109	53.2	106	2	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	46.6	93	45.5	91	2	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	50.9	102	49.5	99	3	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	49.2	98	48.3	97	2	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	54.6	109	53.4	107	2	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	48.4	97	48.2	96	0	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	50.1	100	48.4	97	3	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	51.5	103	51.4	103	0	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	55.3	111	56.1	112	1	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	54.3	109	52.8	106	3	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	54.7	109	53.1	106	3	70-130/30

* = Outside of Control Limits.

6.3.1

6

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19575-4MS	H60392.D	1	04/16/13	GK	n/a	n/a	MSH1996
MC19575-4MSD	H60393.D	1	04/16/13	GK	n/a	n/a	MSH1996
MC19575-4	H60389.D	1	04/16/13	GK	n/a	n/a	MSH1996

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

CAS No.	Compound	MC19575-4 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		50	44.2	88	44.9	90	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	46.8	94	47.3	95	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	256	102	249	100	3	70-130/30
97-63-2	Ethyl methacrylate	ND		50	44.5	89	44.7	89	0	72-139/30
100-41-4	Ethylbenzene	22.2		50	77.5	111	77.1	110	1	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	58.9	118	57.7	115	2	70-130/30
591-78-6	2-Hexanone	ND		50	57.3	115	59.7	119	4	70-130/30
98-82-8	Isopropylbenzene	3.2	J	50	57.9	109	56.6	107	2	70-130/30
99-87-6	p-Isopropyltoluene	1.1	J	50	55.6	109	54.6	107	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	ND		50	49.6	99	49.3	99	1	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	48.2	96	49.3	99	2	70-130/30
74-95-3	Methylene bromide	ND		50	53.6	107	53.0	106	1	70-130/30
75-09-2	Methylene chloride	ND		50	48.7	97	48.9	98	0	70-130/30
91-20-3	Naphthalene	2.4	J	50	64.6	124	61.7	119	5	70-130/30
103-65-1	n-Propylbenzene	8.0		50	60.8	106	59.4	103	2	70-130/30
100-42-5	Styrene	ND		50	24.3	49* a	24.3	49* a	0	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	59.5	119	60.4	121	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	60.8	122	61.2	122	1	70-130/30
127-18-4	Tetrachloroethene	ND		50	60.4	121	59.9	120	1	70-130/30
108-88-3	Toluene	2.7		50	52.7	100	52.6	100	0	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	57.9	116	59.0	118	2	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	58.5	117	58.6	117	0	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	52.1	104	49.9	100	4	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	53.9	108	52.9	106	2	70-130/30
79-01-6	Trichloroethene	ND		50	51.5	103	50.3	101	2	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	51.8	104	50.0	100	4	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	51.6	103	51.8	104	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10.3		50	55.0	89	53.8	87	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	6.5		50	44.3	76	43.8	75	1	70-130/30
108-05-4	Vinyl Acetate	ND		50	256	512* a	247	494* a	4	70-130/30
75-01-4	Vinyl chloride	ND		50	44.4	89	44.6	89	0	70-130/30
	m,p-Xylene	21.4		100	123	102	123	102	0	70-130/30
95-47-6	o-Xylene	6.1		50	55.3	98	55.5	99	0	70-130/30
1330-20-7	Xylene (total)	27.6		150	178	100	178	100	0	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19575-4MS	H60392.D	1	04/16/13	GK	n/a	n/a	MSH1996
MC19575-4MSD	H60393.D	1	04/16/13	GK	n/a	n/a	MSH1996
MC19575-4	H60389.D	1	04/16/13	GK	n/a	n/a	MSH1996

The QC reported here applies to the following samples: Method: SW846 8260B

MC19575-1, MC19575-2, MC19575-3, MC19575-4, MC19575-5

CAS No.	Surrogate Recoveries	MS	MSD	MC19575-4	Limits
1868-53-7	Dibromofluoromethane	92%	92%	89%	70-130%
2037-26-5	Toluene-D8	103%	102%	99%	70-130%
460-00-4	4-Bromofluorobenzene	110%	111%	111%	70-130%

(a) Outside control limits due to possible matrix interference. Refer to Blank Spike.

6.3.1

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH1996-CC1993	Injection Date:	04/16/13
Lab File ID:	H60378.D	Injection Time:	08:11
Instrument ID:	GCMSH	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	168598	8.70	250532	9.57	113613	12.83	143786	15.39	35418	6.27
Upper Limit [a]	337196	9.20	501064	10.07	227226	13.33	287572	15.89	70836	6.77
Lower Limit [b]	84299	8.20	125266	9.07	56807	12.33	71893	14.89	17709	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH1996-BS	183208	8.70	261462	9.57	119168	12.83	150159	15.39	37904	6.28
MSH1996-BSD	186310	8.70	265840	9.57	121627	12.83	151293	15.39	39231	6.27
MSH1996-MB	173395	8.70	239599	9.57	102580	12.83	126493	15.40	37235	6.27
ZZZZZZ	175301	8.70	244133	9.57	104540	12.83	125698	15.40	33681	6.27
ZZZZZZ	166121	8.70	234186	9.57	101530	12.83	122903	15.40	33139	6.28
MC19575-2	165940	8.70	228798	9.57	98134	12.83	120558	15.39	34303	6.28
MC19575-5	165053	8.70	228815	9.57	98978	12.83	119505	15.39	35682	6.28
ZZZZZZ	164765	8.70	232080	9.57	101134	12.83	120984	15.40	36535	6.28
ZZZZZZ	155442	8.70	216572	9.57	95200	12.83	114295	15.40	33043	6.28
MC19575-4	183939	8.70	255609	9.57	105718	12.83	130140	15.40	41350	6.27
MC19575-1	181156	8.70	261737	9.57	108854	12.83	134311	15.40	43361	6.28
MC19575-3	196177	8.70	277221	9.57	115592	12.83	152468	15.40	45376	6.27
MC19575-4MS	220952	8.70	310169	9.57	135851	12.82	167485	15.39	51690	6.26
MC19575-4MSD	230813	8.70	321206	9.57	139125	12.83	172916	15.39	52973	6.27
ZZZZZZ	227030	8.70	312370	9.57	130467	12.83	161995	15.40	47154	6.28
ZZZZZZ	214547	8.70	296353	9.57	126868	12.83	168645	15.39	44496	6.28
ZZZZZZ	223622	8.70	308489	9.57	127863	12.83	177177	15.39	45076	6.28
ZZZZZZ	234115	8.70	322286	9.57	133374	12.83	177612	15.39	49269	6.28
ZZZZZZ	234375	8.70	328928	9.57	135564	12.83	189151	15.39	49908	6.27
ZZZZZZ	237753	8.70	325302	9.57	132312	12.83	169125	15.40	51071	6.28
ZZZZZZ	229083	8.70	312021	9.57	129079	12.83	162667	15.40	46719	6.28
ZZZZZZ	234433	8.70	318754	9.57	130963	12.83	167826	15.40	49047	6.27
ZZZZZZ	231426	8.70	316127	9.57	129610	12.83	164580	15.40	48764	6.28

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: MC19575
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19575-1	H60390.D	92.0	102.0	114.0
MC19575-2	H60385.D	92.0	106.0	111.0
MC19575-3	H60391.D	91.0	104.0	110.0
MC19575-4	H60389.D	89.0	99.0	111.0
MC19575-5	H60386.D	91.0	105.0	111.0
MC19575-4MS	H60392.D	92.0	103.0	110.0
MC19575-4MSD	H60393.D	92.0	102.0	111.0
MSH1996-BS	H60379.D	98.0	104.0	110.0
MSH1996-BSD	H60380.D	97.0	104.0	108.0
MSH1996-MB	H60382.D	91.0	106.0	110.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

6.5.1

6

Note: This SDG represents data for wells not part of the Interim Groundwater Monitoring Program, sampled at the request of IEPA.

Roxana Groundwater – 2nd Quarter 2013 Data Review

Laboratory SDG: MC19613

Data Reviewer: Melissa Mansker

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 5/17/2013

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

Sample Identification	Sample Identification
MW18-ROX-040513	MW21-ROX-040513
MW21-ROX-040513-Dup	TB-ROX-040513-HCL-A
TB-ROX-041013-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 recoveries were outside evaluation criteria. Internal standard area recovery for tert butyl alcohol-d_9 in Run#1 results for sample MW18-ROX-040513 was outside evaluation criteria. Field duplicate RPD for naphthalene was outside evaluation criteria in field duplicate pair MW21-ROX-040513/MW21-ROX-040513-Dup; therefore, results were qualified as estimated. Samples were diluted due to high levels of VOC target analytes. Additionally, the initial calibration verification for acrolein and acetone exceeded 50 percent difference (%D). Professional judgment was used to qualify the common laboratory contaminant acetone in sample MW18-ROX-040513. 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

Note: This SDG represents data for wells not part of the Interim Groundwater Monitoring Program, sampled at the request of IEPA.

LCS/ LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
MSV696-BS/BSD	VOCs	Acetone	**140/140**	0	70-130/25
MSV696-BS/BSD	VOCs	Acrolein	**39/39**	2	70-130/25
MSV696-BS/BSD	VOCs	Bromomethane	**136**/129	5	70-130/25
MSV696-BS/BSD	VOCs	Naphthalene	124/**132**	6	70-130/25

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 MSV696-BS/BSD was associated with the trip blank quality control sample and is not qualified.

Sample ID	Parameter	Analyte	Qualification
MW18-ROX-040513	VOCs	Acrolein	**UJ**
MW18-ROX-040513	VOCs	Naphthalene	**J**
MW21-ROX-040513	VOCs	Acrolein	**UJ**
MW21-ROX-040513	VOCs	Naphthalene	**J**
MW21-ROX-040513-Dup	VOCs	Acrolein	**UJ**
MW21-ROX-040513-Dup	VOCs	Naphthalene	**J**

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
MW18-ROX-040513 Run#1	VOCs	Tert butyl alcohol-d_9	**179718**	39968-159872

Analytical data that required qualification based on internal standard data are included in the table below. Analytical data reported as non-detect and associated with internal standard recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Note: This SDG represents data for wells not part of the Interim Groundwater Monitoring Program, sampled at the request of IEPA.

Field ID	Parameter	Analyte	Qualification
MW18-ROX-040513	VOCs	Benzene	**J**
MW18-ROX-040513	VOCs	n-Butylbenzene	**J**
MW18-ROX-040513	VOCs	sec-Butylbenzene	**J**
MW18-ROX-040513	VOCs	tert-Butylbenzene	**J**
MW18-ROX-040513	VOCs	2-Hexanone	**J**
MW18-ROX-040513	VOCs	Isopropylbenzene	**J**
MW18-ROX-040513	VOCs	p-Isopropyltoluene	**J**
MW18-ROX-040513	VOCs	4-Methyl-2-pentanone (MIBK)	**J**
MW18-ROX-040513	VOCs	n-Propylbenzene	**J**
MW18-ROX-040513	VOCs	Toluene	**J**
MW18-ROX-040513	VOCs	1,3,5-Trimethylbenzene	**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
MW21-ROX-040513	MW21-ROX-040513-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
MW21-ROX-040513	MW21-ROX-040513-Dup	VOCs	Naphthalene	**28**	**J/J**

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 for acrolein and acetone exceeded 50 percent difference (%D). Acrolein in associated samples was qualified in Section 5.0 in this data review due to LCS criteria; no further qualification of acrolein was required. Acetone in associated samples was qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW18-ROX-040513	VOCs	Acetone	**UJ**

Note: This SDG represents data for wells not part of the Interim Groundwater Monitoring Program, sampled at the request of IEPA.

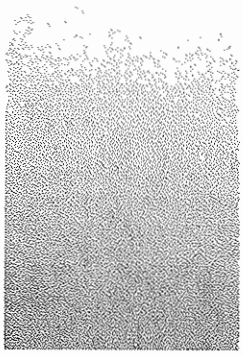
Sample ID	Parameter	Analyte	Qualification
MW21-ROX-040513	VOCs	Acetone	**UJ**
MW21-ROX-040513-Dup	VOCs	Acetone	**UJ**

Additionally, professional judgment was used to qualify the common laboratory contaminant acetone reported at concentrations more than two times (>2X) the reporting limit (RL), since acetone is not representative of site conditions.

Sample ID	Analyte	New RL	Qualification	Comment
MW18-ROX-040513	Acetone	215 ug/L	**U**	Professional Judgment

New England ACCUTEST LABORATORIES

05/06/13



Technical Report for

Shell Oil

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana,

Accutest Job Number: MC19613

Sampling Date: 04/05/13

Report to:

URS Corporation

Melissa.mansker@urs.com

ATTN: Melissa Mansker

Total number of pages in report: **40**

Reviewed on 5/17/2013

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)

Test results relate only to samples analyzed.

Sections: 1 2 3 4 5 6

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Sample Summary

Shell Oil

Job No: MC19613

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
MC19613-1	04/05/13	09:15	LRMM	04/06/13	AQ	Ground Water	MW18-ROX-040513
MC19613-2	04/05/13	10:10	LRMM	04/06/13	AQ	Ground Water	MW21-ROX-040513
MC19613-3	04/05/13	10:10	LRMM	04/06/13	AQ	Ground Water	MW21-ROX-040513-DUP
MC19613-4	04/05/13	00:00	LRMM	04/06/13	AQ	Trip Blank Water	TB-ROX-040513-HCLA

ACCUTEST LABORATORIES

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	Shell Oil	**Job No**	MC19613
Site:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Centra	**Report Date**	4/24/2013 11:46:01 AM

3 Sample(s) and 1 Trip Blank(s) were collected on 04/05/2013 and were received at Accutest on 04/06/2013 properly preserved, at 1.1 Deg. C and intact. These Samples received an Accutest job number of MC19613. 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:** MSH1998

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19661-24MS, MC19661-24MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** MSV696

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19614-2MS, MC19614-2MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for Acetone, Aerolein, Bromomethane are outside control limits. Blank Spike meets program technical requirements.
- BSD Recovery(s) for Acetone, Acrolein, Naphthalene are outside control limits. Blank Spike meets program technical requirements.
- Matrix Spike Recovery(s) for 2-Chloroethyl vinyl ether, Bromomethane, Chloromethane are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- Matrix Spike Duplicate Recovery(s) for 2-Chloroethyl vinyl ether, Naphthalene are outside control limits. Outside control limits due to possible matrix interferenee. Refer to Blank Spike.
- Initial calibration verification MSV692-ICV692 for acrolein, acetone exceeds 50% Difference. Acrolein and acetone are within criteria in continuing calibration check standard MSV696-CC692.
- MC19613-1 has internal standard, Tert Butyl Alcohol-D9 outside control limits. Target analytes not associated with this internal standard.

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(MC19613).

Summary of Hits

Job Number: MC19613
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/05/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19613-1	MW18-ROX-040513					
Acetone		215	5.0	3.0	ug/l	SW846 8260B
Benzene		183	0.50	0.24	ug/l	SW846 8260B
n-Butylbenzene		32.7	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		12.1	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		8.0	5.0	0.64	ug/l	SW846 8260B
Ethylbenzene		2380	10	5.1	ug/l	SW846 8260B
2-Hexanone		190	5.0	2.0	ug/l	SW846 8260B
Isopropylbenzene		97.1	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		10.6	5.0	0.57	ug/l	SW846 8260B
4-Methyl-2-pentanone (MIBK)		126	5.0	2.9	ug/l	SW846 8260B
Naphthalene		289	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		204	5.0	0.58	ug/l	SW846 8260B
Toluene		140	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		929	50	3.5	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		268	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		5290	10	7.3	ug/l	SW846 8260B
o-Xylene		460	10	5.8	ug/l	SW846 8260B
Xylene (total)		5750	10	5.8	ug/l	SW846 8260B
MC19613-2	MW21-ROX-040513					
Benzene		368000	500	240	ug/l	SW846 8260B
n-Butylbenzene		30.9	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		24.6	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		14.3	5.0	0.64	ug/l	SW846 8260B
Ethylbenzene		519 J	1000	510	ug/l	SW846 8260B
Isopropylbenzene		83.4	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		18.6	5.0	0.57	ug/l	SW846 8260B
Naphthalene		175	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		124	5.0	0.58	ug/l	SW846 8260B
Toluene		15.0	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		302	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		93.9	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		204	1.0	0.73	ug/l	SW846 8260B
o-Xylene		3.4	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		207	1.0	0.58	ug/l	SW846 8260B
MC19613-3	MW21-ROX-040513-DUP					
Benzene		364000	500	240	ug/l	SW846 8260B
n-Butylbenzene		29.8	5.0	0.61	ug/l	SW846 8260B
sec-Butylbenzene		23.9	5.0	0.55	ug/l	SW846 8260B
tert-Butylbenzene		14.2	5.0	0.64	ug/l	SW846 8260B

Summary of Hits

Job Number: MC19613
Account: Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Collected: 04/05/13

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethylbenzene		399	1.0	0.51	ug/l	SW846 8260B
Isopropylbenzene		81.2	5.0	0.50	ug/l	SW846 8260B
p-Isopropyltoluene		18.2	5.0	0.57	ug/l	SW846 8260B
Naphthalene		132	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		118	5.0	0.58	ug/l	SW846 8260B
Toluene		14.4	1.0	0.51	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		287	5.0	0.35	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		90.3	5.0	0.47	ug/l	SW846 8260B
m,p-Xylene		196	1.0	0.73	ug/l	SW846 8260B
o-Xylene		2.9	1.0	0.58	ug/l	SW846 8260B
Xylene (total)		199	1.0	0.58	ug/l	SW846 8260B

MC19613-4 TB-ROX-040513-HCLA

No hits reported in this sample.

New England ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW18-ROX-040513		
Lab Sample ID:	MC19613-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, 1L		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17564.D	1	04/16/13	AMY	n/a	n/a	MSV696
Run #2	H60443.D	10	04/17/13	GK	n/a	n/a	MSH1998

	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	~~215~~ 215	~~5.0~~	3.0	ug/l	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	183	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	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-Butauone (MEK)	ND	5.0	2.4	ng/l	
104-51-8	n-Butylbenzene	32.7	5.0	0.61	ug/l	J
135-98-8	sec-Butylbenzene	12.1	5.0	0.55	ug/l	J
98-06-6	tert-Butylbenzene	8.0	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	Chloroethaue	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	Dichlorodifluoromethaue	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:	MW18-ROX-040513		
Lab Sample ID:	MC19613-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	2380 [a]	10	5.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.1	ug/l	
591-78-6	2-Hexanone	190	5.0	2.0	ug/l	J
98-82-8	Isopropylbenzene	97.1	5.0	0.50	ug/l	J
99-87-6	p-Isopropyltoluene	10.6	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)	126	5.0	2.9	ug/l	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	289	5.0	0.50	ug/l	J
103-65-1	n-Propylbenzene	204	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	140	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	929 [a]	50	3.5	ug/l	
108-67-8	1,3,5-Trimethylbenzene	268	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	5290 [a]	10	7.3	ug/l	
95-47-6	o-Xylene	460 [a]	10	5.8	ug/l	
1330-20-7	Xylene (total)	5750 [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:	MW18-ROX-040513		
Lab Sample ID:	MC19613-1	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	90%	70-130%
2037-26-5	Toluene-D8	108%	103%	70-130%
460-00-4	4-Bromofluorobenzene	97%	109%	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:	MW21-ROX-040513		
Lab Sample ID:	MC19613-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17565.D	1	04/16/13	AMY	n/a	n/a	MSV696
Run #2	H60444.D	1000	04/17/13	GK	n/a	u/a	MSH1998

	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	Acetoue	ND	5.0	3.0	ug/l	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	368000 [a]	500	240	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	30.9	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	24.6	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	14.3	5.0	0.64	ug/l	
75-15-0	Carbon disulfide	ND	5.0	0.61	ug/l	
56-23-5	Carbon tetracbloride	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	Chloromethaue	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	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:	MW21-ROX-040513		
Lab Sample ID:	MC19613-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	519 [a]	1000	510	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	83.4	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	18.6	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	175	5.0	0.50	ug/l	J
103-65-1	n-Propylbenzene	124	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	15.0	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	ng/l	
95-63-6	1,2,4-Trimethylbenzene	302	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	93.9	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	204	1.0	0.73	ug/l	
95-47-6	o-Xylene	3.4	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	207	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:	MW21-ROX-040513		
Lab Sample ID:	MC19613-2	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	89%	70-130%
2037-26-5	Toluene-D8	109%	99%	70-130%
460-00-4	4-Bromofluorobenzene	93%	111%	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:	MW21-ROX-040513-DUP		
Lab Sample ID:	MC19613-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17566.D	1	04/16/13	AMY	n/a	n/a	MSV696
Run #2	H60445.D	1000	04/17/13	GK	n/a	n/a	MSH1998

	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	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	364000 [a]	500	240	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	29.8	5.0	0.61	ug/l	
135-98-8	sec-Butylbenzene	23.9	5.0	0.55	ug/l	
98-06-6	tert-Butylbenzene	14.2	5.0	0.64	ug/l	
75-15-0	Carbon disnlfide	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	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	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	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:	MW21-ROX-040513-DUP		
Lab Sample ID:	MC19613-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, 1L		

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	399	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	81.2	5.0	0.50	ug/l	
99-87-6	p-Isopropyltoluene	18.2	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	132	5.0	0.50	ug/l	J
103-65-1	n-Propylbenzene	118	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	14.4	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	287	5.0	0.35	ug/l	
108-67-8	1,3,5-Trimethylbenzene	90.3	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	196	1.0	0.73	ug/l	
95-47-6	o-Xylene	2.9	1.0	0.58	ug/l	
1330-20-7	Xylene (total)	199	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:	MW21-ROX-040513-DUP		
Lab Sample ID:	MC19613-3	Date Sampled:	04/05/13
Matrix:	AQ - Ground Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

VOA Special List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromoflnoromethane	98%	91%	70-130%
2037-26-5	Toluene-D8	109%	100%	70-130%
460-00-4	4-Bromofluorobenzene	94%	111%	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:	TB-ROX-040513-HCLA		
Lab Sample ID:	MC19613-4	Date Sampled:	04/05/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V17550.D	1	04/16/13	AMY	n/a	n/a	MSV696
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	ng/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	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-040513-HCLA		
Lab Sample ID:	MC19613-4	Date Sampled:	04/05/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	ng/l	
142-28-9	1,3-Dichloropropane	ND	5.0	0.64	ng/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	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	ug/l	
99-87-6	p-Isopropyltolnene	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	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-Trichloroetbane	ND	1.0	0.85	ug/l	
79-00-5	1,1,2-Tricbloroethane	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	Vinyl chloride	ND	1.0	0.63	ng/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-040513-HCLA		
Lab Sample ID:	MC19613-4	Date Sampled:	04/05/13
Matrix:	AQ - Trip Blank Water	Date Received:	04/06/13
Method:	SW846 8260B	Percent Solids:	n/a
Project:	URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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	102%		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

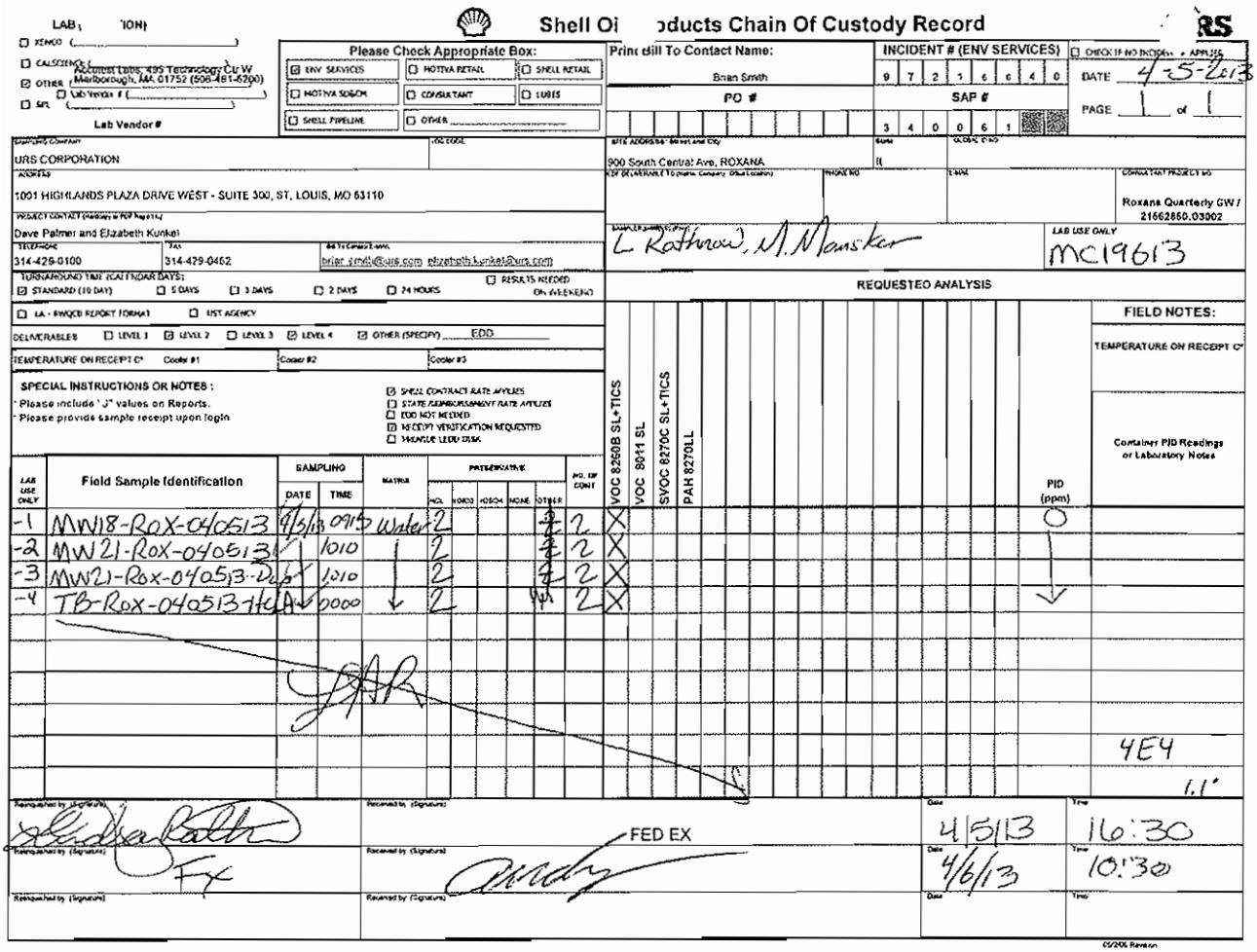
New England ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody



Shell Oi oducts Chain Of Custody Record

LAB ION)
☐ 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 SOSCM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Brian Smith
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 4-5-2013
PAGE 1 of 1

COMPANY: 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 e-mail: brian.smith@urs.com; elizabeth.kunkel@urs.com
SITE ADDRESS: 900 South Central Ave, ROXANA
CONSULTANT PROJECT NO: Roxana Quarterly GW / 21662850.03002
SAMPLER: L. Rathnow, M. Manskar
LAB USE ONLY: MC19613

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
☐ MANAGE LEDD RISK

REQUESTED ANALYSIS: VOC 8260B SL+TICS; VOC 8011 SL; SVOC 8270C SL+TICS; PAH 8270LL; PID (ppm)

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	MW18-ROX-040513	4/5/13	0915	Water	2				2	2	X					
-2	MW21-ROX-040513		1010		2				2	2	X					
-3	MW21-ROX-040513-DUP		1010		2				2	2	X					
-4	TB-ROX-040513-HCL		0000		2				2	2	X					
																4E4
																1.1

Relinquished by (Signature): [signature] Received by (Signature): FED EX Date: 4/5/13 Time: 16:30
Relinquished by (Signature): FX Received by (Signature): [signature] Date: 4/6/13 Time: 10:30
Relinquished by (Signature): Received by (Signature): Date: Time:

05/20% Revision

5.1
5

MC19613: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19613 **Client:** URS **Immediate Client Services Action Required:** No

Date / Time Received: 4/6/2013 **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 Preservation	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

MC19613: Chain of Custody
Page 2 of 2

Internal Sample Tracking Chronicle

Shell Oil

Job No: MC19613

URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19613-1 Collected: 05-APR-13 09:15 By: LRMM Received: 06-APR-13 By: MW18-ROX-040513						
MC19613-1	SW846 8260B	16-APR-13 19:44	AMY			V8260SL1
MC19613-1	SW846 8260B	17-APR-13 14:40	GK			V8260SL1
MC19613-2 Collected: 05-APR-13 10:10 By: LRMM Received: 06-APR-13 By: MW21-ROX-040513						
MC19613-2	SW846 8260B	16-APR-13 20:11	AMY			V8260SL1
MC19613-2	SW846 8260B	17-APR-13 15:07	GK			V8260SL1
MC19613-3 Collected: 05-APR-13 10:10 By: LRMM Received: 06-APR-13 By: MW21-ROX-040513-DUP						
MC19613-3	SW846 8260B	16-APR-13 20:37	AMY			V8260SL1
MC19613-3	SW846 8260B	17-APR-13 15:35	GK			V8260SL1
MC19613-4 Collected: 05-APR-13 00:00 By: LRMM Received: 06-APR-13 By: TB-ROX-040513-HCLA						
MC19613-4	SW846 8260B	16-APR-13 13:33	AMY			V8260SL1

Accutest Internal Chain of Custody

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL
Received: 04/06/13

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
MC19613-1.1	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19613-1.1	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19613-1.1	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19613-1.1	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Return to Storage
MC19613-1.2	VOC Ref #4	Kerry Ryan	04/17/13 09:49	Retrieve from Storage
MC19613-1.2	Kerry Ryan	GCMSH	04/17/13 09:49	Load on Instrument
MC19613-1.2	GCMSH	Kerry Ryan	04/18/13 08:04	Unload from Instrument
MC19613-1.2	Kerry Ryan	VOC Ref #4	04/18/13 08:04	Return to Storage
MC19613-2.1	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19613-2.1	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19613-2.1	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19613-2.1	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Retnrn to Storage
MC19613-2.2	VOC Ref #4	Kerry Ryan	04/17/13 09:49	Retrieve from Storage
MC19613-2.2	Kerry Ryan	GCMSH	04/17/13 09:49	Load on Instrument
MC19613-2.2	GCMSH	Kerry Ryan	04/18/13 08:04	Unload from Instrnment
MC19613-2.2	Kerry Ryan	VOC Ref #4	04/18/13 08:04	Return to Storage
MC19613-3.1	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19613-3.1	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19613-3.1	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19613-3.1	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Return to Storage
MC19613-3.2	VOC Ref #4	Kerry Ryan	04/17/13 09:49	Retrieve from Storage
MC19613-3.2	Kerry Ryan	GCMSH	04/17/13 09:49	Load on Instrument
MC19613-3.2	GCMSH	Kerry Ryan	04/18/13 08:04	Unload from Instrument
MC19613-3.2	Kerry Ryan	VOC Ref #4	04/18/13 08:04	Return to Storage
MC19613-4.1	VOC Ref #4	Amy Min Yang	04/16/13 11:33	Retrieve from Storage
MC19613-4.1	Amy Min Yang	GCMSV	04/16/13 11:34	Load on Instrument
MC19613-4.1	GCMSV	Amy Min Yang	04/17/13 16:23	Unload from Instrument
MC19613-4.1	Amy Min Yang	VOC Ref #4	04/17/13 16:23	Return to Storage

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: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-MB	V17548.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

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: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-MB	V17548.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

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	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: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-MB	V17548.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	70-130%
2037-26-5	Toluene-D8	102%	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	

6.1.1

Method Blank Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-MB	H60433.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.24	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.51	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	0.35	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	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	92%	70-130%
2037-26-5	Toluene-D8	106%	70-130%
460-00-4	4-Bromofluorobenzene	112%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Cone.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-BS	V17544.D	1	04/16/13	AMY	n/a	n/a	MSV696
MSV696-BSD	V17545.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	70.1	140* a	70.0	140* a	0	70-130/25
107-02-8	Acrolein	250	98.7	39* a	96.8	39* a	2	70-130/25
107-13-1	Acrylonitrile	50	60.8	122	59.3	119	2	70-130/25
71-43-2	Benzene	50	53.9	108	53.1	106	1	70-130/25
108-86-1	Bromobenzene	50	56.8	114	55.8	112	2	70-130/25
74-97-5	Bromochloromethane	50	56.4	113	55.9	112	1	70-130/25
75-27-4	Bromodichloromethane	50	53.7	107	53.5	107	0	70-130/25
75-25-2	Bromoform	50	42.5	85	43.0	86	1	70-130/25
74-83-9	Bromomethane	50	68.0	136* a	64.7	129	5	70-130/25
78-93-3	2-Butanone (MEK)	50	63.2	126	63.8	128	1	70-130/25
104-51-8	n-Butylbenzene	50	61.1	122	60.2	120	1	70-130/25
135-98-8	sec-Butylbenzene	50	56.9	114	55.5	111	2	70-130/25
98-06-6	tert-Butylbenzene	50	56.2	112	54.6	109	3	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	52.9	106	51.5	103	3	70-130/25
108-90-7	Chlorobenzene	50	54.4	109	53.4	107	2	70-130/25
75-00-3	Chloroethane	50	62.4	125	59.2	118	5	70-130/25
110-75-8	2-Chloroethyl vinyl ether	50	49.4	99	49.9	100	1	70-130/25
67-66-3	Chloroform	50	54.8	110	53.9	108	2	70-130/25
74-87-3	Chloromethane	50	64.5	129	63.0	126	2	70-130/25
95-49-8	o-Chlorotoluene	50	54.6	109	53.8	108	1	70-130/25
106-43-4	p-Chlorotoluene	50	56.7	113	55.9	112	1	70-130/25
124-48-1	Dibromochloromethane	50	47.1	94	47.2	94	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	55.6	111	55.1	110	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	54.9	110	54.0	108	2	70-130/25
106-46-7	1,4-Dichlorobenzene	50	57.4	115	56.2	112	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	51.6	103	50.7	101	2	70-130/25
75-34-3	1,1-Dichloroethane	50	56.5	113	55.6	111	2	70-130/25
107-06-2	1,2-Dichloroethane	50	54.2	108	54.0	108	0	70-130/25
75-35-4	1,1-Dichloroethene	50	57.8	116	56.3	113	3	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	54.4	109	53.5	107	2	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	55.6	111	54.5	109	2	70-130/25
78-87-5	1,2-Dichloropropane	50	53.7	107	53.3	107	1	70-130/25
142-28-9	1,3-Dichloropropane	50	54.3	109	54.1	108	0	70-130/25
594-20-7	2,2-Dichloropropane	50	57.8	116	56.0	112	3	70-130/25
563-58-6	1,1-Dichloropropene	50	55.0	110	54.0	108	2	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-BS	V17544.D	1	04/16/13	AMY	n/a	n/a	MSV696
MSV696-BSD	V17545.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

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	52.7	105	52.8	106	0	70-130/25
10061-02-6	trans-1,3-Dichloropropene	50	48.7	97	48.9	98	0	70-130/25
123-91-1	1,4-Dioxane	250	253	101	260	104	3	70-130/25
97-63-2	Ethyl methacrylate	50	52.2	104	52.3	105	0	77-137/25
100-41-4	Ethylbenzene	50	57.5	115	56.6	113	2	70-130/25
87-68-3	Hexachlorobutadiene	50	54.3	109	54.8	110	1	70-130/25
591-78-6	2-Hexanone	50	59.5	119	59.9	120	1	70-130/25
98-82-8	Isopropylbenzene	50	56.1	112	55.1	110	2	70-130/25
99-87-6	p-Isopropyltolnene	50	61.5	123	60.8	122	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	49.4	99	49.7	99	1	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	49.9	100	50.4	101	1	70-130/25
74-95-3	Methylene bromide	50	54.8	110	55.1	110	1	70-130/25
75-09-2	Methylene chloride	50	55.7	111	55.3	111	1	70-130/25
91-20-3	Naphthalene	50	62.2	124	65.8	132* [a]	6	70-130/25
103-65-1	n-Propylbenzene	50	56.2	112	54.9	110	2	70-130/25
100-42-5	Styrene	50	57.2	114	56.4	113	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	56.9	114	56.2	112	1	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	61.9	124	62.1	124	0	70-130/25
127-18-4	Tetrachloroethene	50	54.8	110	53.5	107	2	70-130/25
108-88-3	Toluene	50	54.7	109	53.9	108	1	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	59.4	119	64.4	129	8	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	57.5	115	59.0	118	3	70-130/25
71-55-6	1,1,1-Trichloroethane	50	53.6	107	52.3	105	2	70-130/25
79-00-5	1,1,2-Trichloroethane	50	53.3	107	53.3	107	0	70-130/25
79-01-6	Trichloroethene	50	51.2	102	50.3	101	2	70-130/25
75-69-4	Trichlorofluoromethane	50	57.5	115	55.3	111	4	70-130/25
96-18-4	1,2,3-Trichloropropane	50	56.2	112	56.3	113	0	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	57.6	115	56.6	113	2	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	57.4	115	56.3	113	2	70-130/25
108-05-4	Vinyl Acetate	50	54.9	110	55.2	110	1	70-130/25
75-01-4	Vinyl chloride	50	53.5	107	51.9	104	3	70-130/25
	m,p-Xylene	100	115	115	112	112	3	70-130/25
95-47-6	o-Xylene	50	54.8	110	53.6	107	2	70-130/25
1330-20-7	Xylene (total)	150	170	113	165	110	3	70-130/25

* = Outside of Control Limits.

6.2.1

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSV696-BS	V17544.D	1	04/16/13	AMY	n/a	n/a	MSV696
MSV696-BSD	V17545.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	106%	106%	70-130%
2037-26-5	Toluene-D8	104%	104%	70-130%
460-00-4	4-Bromofluorobenzene	93%	93%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

6.2.1

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSH1998-BS	H60430.D	1	04/17/13	GK	n/a	n/a	MSH1998
MSH1998-BSD	H60431.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	50	52.2	104	50.3	101	4	70-130/25
100-41-4	Ethylbenzene	50	58.2	116	56.0	112	4	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	56.3	113	54.9	110	3	70-130/25
	m,p-Xylene	100	115	115	114	114	1	70-130/25
95-47-6	o-Xylene	50	56.4	113	54.8	110	3	70-130/25
1330-20-7	Xylene (total)	150	171	114	169	113	1	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	98%	70-130%
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	109%	109%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19614-2MS	V17555.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2MSD	V17556.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2	V17553.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

CAS No.	Compound	MC19614-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	58.5	117	57.3	115	2	70-130/30
107-02-8	Acrolein	ND		250	225	90	224	90	0	70-130/30
107-13-1	Acrylonitrile	ND		50	62.1	124	59.1	118	5	70-130/30
71-43-2	Benzene	ND		50	54.0	108	52.0	104	4	70-130/30
108-86-1	Bromobenzene	ND		50	54.3	109	53.4	107	2	70-130/30
74-97-5	Bromochloromethane	ND		50	56.0	112	54.6	109	3	70-130/30
75-27-4	Bromodichloromethane	ND		50	52.9	106	51.9	104	2	70-130/30
75-25-2	Bromoform	ND		50	40.2	80	41.3	83	3	70-130/30
74-83-9	Bromomethane	ND		50	66.9	134* [a]	64.6	129	3	70-130/30
78-93-3	2-Butanone (MEK)	ND		50	54.2	108	52.2	104	4	70-130/30
104-51-8	n-Butylbenzene	ND		50	58.8	118	57.3	115	3	70-130/30
135-98-8	sec-Butylbenzene	0.77	J	50	54.2	107	53.0	104	2	70-130/30
98-06-6	tert-Butylbenzene	ND		50	52.5	105	51.5	103	2	70-130/30
75-15-0	Carbon disulfide	ND		50	55.3	111	53.0	106	4	70-130/30
56-23-5	Carbon tetrachloride	ND		50	51.5	103	50.1	100	3	70-130/30
108-90-7	Chlorobenzene	ND		50	51.8	104	50.8	102	2	70-130/30
75-00-3	Chloroethane	ND		50	61.3	123	59.8	120	2	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	55.0	110	53.1	106	4	70-130/30
74-87-3	Chloromethane	ND		50	68.0	136* [a]	64.5	129	5	70-130/30
95-49-8	o-Chlorotoluene	ND		50	52.7	105	51.6	103	2	70-130/30
106-43-4	p-Chlorotoluene	ND		50	54.9	110	53.8	108	2	70-130/30
124-48-1	Dibromochloromethane	ND		50	45.5	91	45.3	91	0	70-130/30
95-50-1	1,2-Dichlorobenzene	ND		50	53.3	107	52.9	106	1	70-130/30
541-73-1	1,3-Dichlorobenzene	ND		50	52.2	104	51.6	103	1	70-130/30
106-46-7	1,4-Dichlorobenzene	ND		50	54.6	109	54.0	108	1	70-130/30
75-71-8	Dichlorodifluoromethane	ND		50	53.1	106	50.8	102	4	70-130/30
75-34-3	1,1-Dichloroethane	ND		50	57.3	115	55.0	110	4	70-130/30
107-06-2	1,2-Dichloroethane	ND		50	55.7	111	54.1	108	3	70-130/30
75-35-4	1,1-Dichloroethene	ND		50	57.1	114	54.9	110	4	70-130/30
156-59-2	cis-1,2-Dichloroethene	ND		50	54.4	109	52.2	104	4	70-130/30
156-60-5	trans-1,2-Dichloroethene	ND		50	55.5	111	52.9	106	5	70-130/30
78-87-5	1,2-Dichloropropane	ND		50	54.2	108	52.7	105	3	70-130/30
142-28-9	1,3-Dichloropropane	ND		50	53.3	107	52.0	104	2	70-130/30
594-20-7	2,2-Dichloropropane	ND		50	55.5	111	53.1	106	4	70-130/30
563-58-6	1,1-Dichloropropene	ND		50	54.9	110	52.4	105	5	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19614-2MS	V17555.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2MSD	V17556.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2	V17553.D	1	04/16/13	AMY	n/a	n/a	MSV696

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

CAS No.	Compound	MC19614-2 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		50	51.6	103	50.1	100	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	ND		50	47.9	96	47.5	95	1	70-130/30
123-91-1	1,4-Dioxane	ND		250	274	110	261	104	5	70-130/30
97-63-2	Ethyl methacrylate	ND		50	53.4	107	52.8	106	1	72-139/30
100-41-4	Ethylbenzene	ND		50	55.4	111	54.3	109	2	70-130/30
87-68-3	Hexachlorobutadiene	ND		50	50.6	101	50.7	101	0	70-130/30
591-78-6	2-Hexanone	ND		50	54.1	108	53.6	107	1	70-130/30
98-82-8	Isopropylbenzene	1.1	J	50	54.4	107	53.4	105	2	70-130/30
99-87-6	p-Isopropyltoluene	ND		50	58.7	117	57.5	115	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	60.5		50	110	99	107	93	3	70-130/30
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		50	53.1	106	52.2	104	2	70-130/30
74-95-3	Methylene bromide	ND		50	55.4	111	53.9	108	3	70-130/30
75-09-2	Methylene chloride	ND		50	56.7	113	54.4	109	4	70-130/30
91-20-3	Naphthalene	ND		50	52.1	104	66.5	133* [a]	24	70-130/30
103-65-1	n-Propylbenzene	ND		50	54.1	108	52.8	106	2	70-130/30
100-42-5	Styrene	ND		50	54.8	110	53.9	108	2	70-130/30
630-20-6	1,1,1,2-Tetrachloroethane	ND		50	54.4	109	53.7	107	1	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	ND		50	63.2	126	63.2	126	0	70-130/30
127-18-4	Tetrachloroethene	ND		50	50.7	101	49.9	100	2	70-130/30
108-88-3	Toluene	ND		50	54.0	108	52.1	104	4	70-130/30
87-61-6	1,2,3-Trichlorobenzene	ND		50	48.9	98	58.4	117	18	70-130/30
120-82-1	1,2,4-Trichlorobenzene	ND		50	52.6	105	55.4	111	5	70-130/30
71-55-6	1,1,1-Trichloroethane	ND		50	52.5	105	50.8	102	3	70-130/30
79-00-5	1,1,2-Trichloroethane	ND		50	53.6	107	51.9	104	3	70-130/30
79-01-6	Trichloroethene	ND		50	49.6	99	48.0	96	3	70-130/30
75-69-4	Trichlorofluoromethane	ND		50	59.2	118	56.3	113	5	70-130/30
96-18-4	1,2,3-Trichloropropane	ND		50	56.4	113	56.2	112	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	ND		50	55.4	111	54.0	108	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	ND		50	54.7	109	53.6	107	2	70-130/30
108-05-4	Vinyl Acetate	ND		50	58.7	117	56.6	113	4	70-130/30
75-01-4	Vinyl chloride	ND		50	53.4	107	51.7	103	3	70-130/30
	m,p-Xylene	1.4		100	110	109	107	106	3	70-130/30
95-47-6	o-Xylene	0.79	J	50	52.8	104	52.3	103	1	70-130/30
1330-20-7	Xylene (total)	2.1		150	163	107	159	105	2	70-130/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19614-2MS	V17555.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2MSD	V17556.D	1	04/16/13	AMY	n/a	n/a	MSV696
MC19614-2	V17553.D	1	04/16/13	AMY	n/a	n/a	MSV696

6.3.1

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3, MC19613-4

CAS No.	Surrogate Recoveries	MS	MSD	MC19614-2	Limits
1868-53-7	Dibromofluoromethane	108%	107%	104%	70-130%
2037-26-5	Toluene-D8	105%	105%	104%	70-130%
460-00-4	4-Bromofluorobenzene	94%	94%	97%	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: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MC19661-24MS	H60438.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24MSD	H60439.D	5	04/17/13	GK	n/a	n/a	MSH1998
MC19661-24 [a]	H60434.D	1	04/17/13	GK	n/a	n/a	MSH1998

The QC reported here applies to the following samples: Method: SW846 8260B

MC19613-1, MC19613-2, MC19613-3

CAS No.	Compound	MC19661-24 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	55.1		250	292	95	292	95	0	70-130/30
100-41-4	Ethylbenzene	ND		250	281	112	281	112	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	0.58		250	268	107	264	105	2	70-130/30
	m,p-Xylene	ND		500	561	112	557	111	1	70-130/30
95-47-6	o-Xylene	ND		250	270	108	273	109	1	70-130/30
1330-20-7	Xylene (total)	ND		750	831	111	830	111	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	MC19661-24	Limits
1868-53-7	Dibromofluoromethane	98%	96%	92%	70-130%
2037-26-5	Toluene-D8	102%	102%	102%	70-130%
460-00-4	4-Bromofluorobenzene	110%	108%	116%	70-130%

(a) The pH of the sample aliquot for VOA analysis was > 2 at time of analysis.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSH1998-CC1993	Injection Date:	04/17/13
Lab File ID:	H60429.D	Injection Time:	08:13
Instrument ID:	GCMSH	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	168742	8.70	243455	9.57	110719	12.83	141232	15.39	33112	6.27
Upper Limit [a]	337484	9.20	486910	10.07	221438	13.33	282464	15.89	66224	6.77
Lower Limit [b]	84371	8.20	121728	9.07	55360	12.33	70616	14.89	16556	5.77
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSH1998-BS	178972	8.70	258516	9.57	116906	12.83	146613	15.39	37350	6.28
MSH1998-BSD	187579	8.70	269162	9.57	119562	12.83	150883	15.39	39631	6.27
MSH1998-MB	172057	8.70	237410	9.57	103902	12.83	124770	15.40	36685	6.28
MC19661-24	171481	8.70	245234	9.57	103157	12.83	121946	15.40	30651	6.28
ZZZZZZ	170617	8.70	236248	9.57	100470	12.83	119905	15.40	32490	6.28
ZZZZZZ	163514	8.70	225668	9.57	98549	12.83	115944	15.40	35393	6.27
ZZZZZZ	165507	8.70	226533	9.57	97141	12.83	133557	15.39	38209	6.28
MC19661-24MS	179027	8.70	258808	9.57	114363	12.83	147074	15.40	36147	6.27
MC19661-24MSD	184681	8.70	264350	9.57	117356	12.82	150717	15.39	38578	6.27
ZZZZZZ	187392	8.70	258336	9.57	108844	12.83	134542	15.40	40722	6.27
ZZZZZZ	179078	8.70	246743	9.57	105818	12.82	128021	15.40	38295	6.27
ZZZZZZ	175554	8.70	245382	9.57	107831	12.83	134305	15.40	37501	6.27
MC19613-1	180096	8.70	250522	9.57	107074	12.83	142416	15.39	40136	6.28
MC19613-2	184337	8.70	274281	9.57	109980	12.83	132866	15.40	36884	6.28
MC19613-3	175858	8.70	259395	9.57	103618	12.83	128041	15.40	38524	6.28
ZZZZZZ	175054	8.70	242295	9.57	105941	12.83	124758	15.40	38358	6.28
ZZZZZZ	169804	8.70	232489	9.57	102401	12.83	142416	15.39	41711	6.27
ZZZZZZ	191994	8.70	260722	9.57	110859	12.83	135974	15.40	41014	6.27
ZZZZZZ	182412	8.70	254576	9.57	107529	12.83	130004	15.39	38943	6.27
ZZZZZZ	178960	8.70	245972	9.57	105816	12.83	128548	15.40	39513	6.28
ZZZZZZ	173006	8.70	239000	9.57	105699	12.83	148646	15.40	41556	6.28

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: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 900 South Central Avenue, Roxana, IL

Check Std:	MSV696-CC692	Injection Date:	04/16/13
Lab File ID:	V17543.D	Injection Time:	10:27
Instrument ID:	GCMSV	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	554754	6.53	838734	7.72	343855	11.06	403347	13.28	79936	3.48
Upper Limit [a]	1109508	7.03	1677468	8.22	687710	11.56	806694	13.78	159872	3.98
Lower Limit [b]	277377	6.03	419367	7.22	171928	10.56	201674	12.78	39968	2.98
Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSV696-BS	538081	6.54	814975	7.72	337503	11.07	397539	13.28	85881	3.49
MSV696-BSD	541869	6.53	818945	7.72	342139	11.07	400859	13.28	87905	3.48
MSV696-MB	530337	6.54	805278	7.73	330949	11.07	370563	13.28	86419	3.49
ZZZZZZ	541502	6.54	820138	7.73	336838	11.07	377520	13.28	86011	3.49
MC19613-4	520364	6.54	796954	7.72	326684	11.07	363054	13.28	78829	3.48
ZZZZZZ	515991	6.55	789892	7.73	327228	11.07	363592	13.28	83121	3.50
ZZZZZZ	522291	6.54	795685	7.73	328032	11.07	362545	13.28	81743	3.49
MC19614-2	507086	6.54	773848	7.73	322548	11.07	358995	13.28	82889	3.49
MC19614-2MS	509248	6.55	773003	7.73	330008	11.07	382821	13.29	92117	3.50
MC19614-2MSD	527394	6.55	799814	7.73	336272	11.07	391796	13.28	94973	3.50
MC19614-6MS	532481	6.54	810949	7.73	338776	11.07	393013	13.29	91973	3.49
MC19614-6MSD	536285	6.55	814603	7.73	340667	11.07	395032	13.29	90541	3.50
ZZZZZZ	531530	6.55	807640	7.73	334972	11.07	375783	13.29	84915	3.50
MC19614-6	504621	6.55	774124	7.73	321767	11.07	355223	13.29	80377	3.49
ZZZZZZ	532384	6.56	818484	7.74	359632	11.08	413875	13.29	160710[c]	3.52
ZZZZZZ	559045	6.55	836770	7.74	351477	11.07	413779	13.29	130639	3.51
MC19613-1	535255	6.55	823392	7.74	355639	11.08	414403	13.29	179718[c]	3.52
MC19613-2	539242	6.70	873942	7.80	385529	11.08	441346	13.29	103276	3.52
MC19613-3	585158	6.69	895809	7.79	392074	11.08	456792	13.29	109547	3.52
ZZZZZZ	596386	6.55	883051	7.73	374177	11.07	453138	13.29	114956	3.50
ZZZZZZ	624753	6.55	910052	7.74	385570	11.08	467398	13.29	108542	3.50

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.

6.4.2

Volatile Surrogate Recovery Summary

Job Number: MC19613
Account: SHELLWIC Shell Oil
Project: URSMOSTL:Roxana 2Q13 GW/ 21562850.03002 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
MC19613-1	H60443.D	90.0	103.0	109.0
MC19613-1	V17564.D	100.0	108.0	97.0
MC19613-2	H60444.D	89.0	99.0	111.0
MC19613-2	V17565.D	102.0	109.0	93.0
MC19613-3	H60445.D	91.0	100.0	111.0
MC19613-3	V17566.D	98.0	109.0	94.0
MC19613-4	V17550.D	104.0	102.0	96.0
MC19614-2MS	V17555.D	108.0	105.0	94.0
MC19614-2MSD	V17556.D	107.0	105.0	94.0
MC19661-24MS	H60438.D	98.0	102.0	110.0
MC19661-24MSD	H60439.D	96.0	102.0	108.0
MSH1998-BS	H60430.D	99.0	102.0	109.0
MSH1998-BSD	H60431.D	98.0	101.0	109.0
MSH1998-MB	H60433.D	92.0	106.0	112.0
MSV696-BS	V17544.D	106.0	104.0	93.0
MSV696-BSD	V17545.D	106.0	104.0	93.0
MSV696-MB	V17548.D	102.0	102.0	95.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G118**	Lab Sample ID:	**SD30237-01**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 9:15
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 19:25
Units:	ug/L	Analyzed:	04/10/13 19:25

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND		2.0	
Vinyl chloride	ND		2.0	
Bromomethane	ND		2.0	
Chloroethane	ND		2.0	
Trichlorofluoromethane	ND		2.0	
Acetone	ND		10	
1,1-Dichloroethene	ND		2.0	
Methylene chloride	ND		5.0	
Carbon disulfide	ND		2.0	
trans-1,2-Dichloroethene	ND		2.0	
Methyl tert-butyl ether	ND		2.0	
1,1-Dichloroethane	ND		2.0	
2-Butanone (MEK) *	ND		10	
cis-1,2-Dichloroethene	ND		2.0	
Bromochloromethane	ND		2.0	
Chloroform	ND		2.0	
2,2-Dichloropropane	ND		2.0	
1,2-Dichloroethane	ND		2.0	
1,1,1-Trichloroethane	ND		2.0	
1,1-Dichloropropene	ND		2.0	
Carbon tetrachloride	ND		2.0	
Benzene	**150**		2.0	
Dibromomethane	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G118**	Lab Sample ID:	**SD30237-01**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 9:15
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 19:25
Units:	ug/L	Analyzed:	04/10/13 19:25

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND		2.0	
Trichloroethene	ND		2.0	
Bromodichloromethane	ND		2.0	
cis-1,3-Dichloropropene	ND		2.0	
4-Methyl-2-pentanone (MIBK)	**110**		2.0	
trans-1,3-Dichloropropene	ND		2.0	
1,1,2-Trichloroethane	ND		2.0	
Toluene	**93**		2.0	
1,3-Dichloropropane	ND		2.0	
2-Hexanone (MBK) *	**120**		2.0	
Dibromochloromethane	ND		2.0	
1,2-Dibromoethane	ND		2.0	
Tetrachloroethene	ND		2.0	
1,1,1,2-Tetrachloroethane	ND		2.0	
Chlorobenzene	ND		2.0	
Ethylbenzene	**1900**		2.0	
Bromoform	ND		2.0	
Styrene	ND		2.0	
1,1,2,2-Tetrachloroethane	ND		2.0	
Xylenes, total	**4400**		2.0	
1,2,3-Trichloropropane	ND		2.0	
Isopropylbenzene	**73**		2.0	
Bromobenzene	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G121**	Lab Sample ID:	**SD30237-02**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 10:10
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 19:59

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND		2.0	
Vinyl chloride	ND		2.0	
Bromomethane	ND		2.0	
Chloroethane	ND		2.0	
Trichlorofluoromethane	ND		2.0	
Acetone	ND		10	
1,1-Dichloroethene	ND		2.0	
Methylene chloride	ND		5.0	
Carbon disulfide	ND		2.0	
trans-1,2-Dichloroethene	ND		2.0	
Methyl tert-butyl ether	**69**		2.0	
1,1-Dichloroethane	ND		2.0	
2-Butanone (MEK) *	ND		10	
cis-1,2-Dichloroethene	ND		2.0	
Bromochloromethane	ND		2.0	
Chloroform	ND		2.0	
2,2-Dichloropropane	ND		2.0	
1,2-Dichloroethane	ND		2.0	
1,1,1-Trichloroethane	ND		2.0	
1,1-Dichloropropene	ND		2.0	
Carbon tetrachloride	ND		2.0	
Benzene	**400000**		2.0	
Dibromomethane	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G121**	Lab Sample ID:	**SD30237-02**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 10:10
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 19:59

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND		2.0	
Trichloroethene	ND		2.0	
Bromodichloromethane	ND		2.0	
cis-1,3-Dichloropropene	ND		2.0	
4-Methyl-2-pentanone (MIBK)	ND		2.0	
trans-1,3-Dichloropropene	ND		2.0	
1,1,2-Trichloroethane	ND		2.0	
Toluene	**10**		2.0	
1,3-Dichloropropane	ND		2.0	
2-Hexanone (MBK) *	ND		2.0	
Dibromochloromethane	ND		2.0	
1,2-Dibromoethane	ND		2.0	
Tetrachloroethene	ND		2.0	
1,1,1,2-Tetrachloroethane	ND		2.0	
Chlorobenzene	ND		2.0	
Ethylbenzene	**450**		2.0	
Bromoform	ND		2.0	
Styrene	ND		2.0	
1,1,2,2-Tetrachloroethane	ND		2.0	
Xylenes, total	**240**		2.0	
1,2,3-Trichloropropane	ND		2.0	
Isopropylbenzene	**61**		2.0	
Bromobenzene	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G103**	Lab Sample ID:	**SD30237-03**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 11:35
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/12/13 19:03

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND		2.0	
Vinyl chloride	ND		2.0	
Bromomethane	ND		2.0	
Chloroethane	ND		2.0	
Trichlorofluoromethane	ND		2.0	
Acetone	**22**	M	10	
1,1-Dichloroethene	ND		2.0	
Methylene chloride	ND		5.0	
Carbon disulfide	ND		2.0	
trans-1,2-Dichloroethene	ND		2.0	
Methyl tert-butyl ether	ND		2.0	
1,1-Dichloroethane	ND		2.0	
2-Butanone (MEK) *	ND		10	
cis-1,2-Dichloroethene	ND		2.0	
Bromochloromethane	ND		2.0	
Chloroform	ND		2.0	
2,2-Dichloropropane	ND		2.0	
1,2-Dichloroethane	ND		2.0	
1,1,1-Trichloroethane	ND		2.0	
1,1-Dichloropropene	ND		2.0	
Carbon tetrachloride	ND		2.0	
Benzene	**34**		2.0	
Dibromomethane	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G103**	Lab Sample ID:	**SD30237-03**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 11:35
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/12/13 19:03

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND		2.0	
Trichloroethene	ND		2.0	
Bromodichloromethane	ND		2.0	
cis-1,3-Dichloropropene	ND		2.0	
4-Methyl-2-pentanone (MIBK)	ND		2.0	
trans-1,3-Dichloropropene	ND		2.0	
1,1,2-Trichloroethane	ND		2.0	
Toluene	ND		2.0	
1,3-Dichloropropane	ND		2.0	
2-Hexanone (MBK) *	ND		2.0	
Dibromochloromethane	ND		2.0	
1,2-Dibromoethane	ND		2.0	
Tetrachloroethene	ND		2.0	
1,1,1,2-Tetrachloroethane	ND		2.0	
Chlorobenzene	ND		2.0	
Ethylbenzene	**9.9**		2.0	
Bromoform	ND		2.0	
Styrene	ND		2.0	
1,1,2,2-Tetrachloroethane	ND		2.0	
Xylenes, total	**56**		2.0	
1,2,3-Trichloropropane	ND		2.0	
Isopropylbenzene	**3.8**		2.0	
Bromobenzene	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G122**	Lab Sample ID:	**SD30237-04**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 13:30
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 21:07

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND		2.0	
Vinyl chloride	ND		2.0	
Bromomethane	ND		2.0	
Chloroethane	ND		2.0	
Trichlorofluoromethane	ND		2.0	
Acetone	ND		10	
1,1-Dichloroethene	ND		2.0	
Methylene chloride	ND		5.0	
Carbon disulfide	ND		2.0	
trans-1,2-Dichloroethene	ND		2.0	
Methyl tert-butyl ether	ND		2.0	
1,1-Dichloroethane	ND		2.0	
2-Butanone (MEK) *	ND		10	
cis-1,2-Dichloroethene	ND		2.0	
Bromochloromethane	ND		2.0	
Chloroform	ND		2.0	
2,2-Dichloropropane	ND		2.0	
1,2-Dichloroethane	ND		2.0	
1,1,1-Trichloroethane	ND		2.0	
1,1-Dichloropropene	ND		2.0	
Carbon tetrachloride	ND		2.0	
Benzene	**2300**		100	
Dibromomethane	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G122**	Lab Sample ID:	**SD30237-04**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 13:30
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 21:07

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND		2.0	
Trichloroethene	ND		2.0	
Bromodichloromethane	ND		2.0	
cis-1,3-Dichloropropene	ND		2.0	
4-Methyl-2-pentanone (MIBK)	ND		2.0	
trans-1,3-Dichloropropene	ND		2.0	
1,1,2-Trichloroethane	ND		2.0	
Toluene	**7900**		2.0	
1,3-Dichloropropane	ND		2.0	
2-Hexanone (MBK) *	ND		2.0	
Dibromochloromethane	ND		2.0	
1,2-Dibromoethane	ND		2.0	
Tetrachloroethene	ND		2.0	
1,1,1,2-Tetrachloroethane	ND		2.0	
Chlorobenzene	ND		2.0	
Ethylbenzene	**3500**		2.0	
Bromoform	ND		2.0	
Styrene	ND		2.0	
1,1,2,2-Tetrachloroethane	ND		2.0	
Xylenes, total	**10000**		2.0	
1,2,3-Trichloropropane	ND		2.0	
Isopropylbenzene	**120**		2.0	
Bromobenzene	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**VOC TRIP BLANKS**	Lab Sample ID:	**SD30237-05**
Matrix:	Water	Collected By:	Date/Time Collected: 04/05/13 0:00
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/12/13 09:00
Units:	ug/L	Analyzed:	04/12/13 18:29

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND		2.0	
Vinyl chloride	ND		2.0	
Bromomethane	ND		2.0	
Chloroethane	ND		2.0	
Trichlorofluoromethane	ND		2.0	
Acetone	ND		10	
1,1-Dichloroethene	ND		2.0	
Methylene chloride	ND		5.0	
Carbon disulfide	ND		2.0	
trans-1,2-Dichloroethene	ND		2.0	
Methyl tert-butyl ether	ND		2.0	
1,1-Dichloroethane	ND		2.0	
2-Butanone (MEK) *	ND		10	
cis-1,2-Dichloroethene	ND		2.0	
Bromochloromethane	ND		2.0	
Chloroform	ND		2.0	
2,2-Dichloropropane	ND		2.0	
1,2-Dichloroethane	ND		2.0	
1,1,1-Trichloroethane	ND		2.0	
1,1-Dichloropropene	ND		2.0	
Carbon tetrachloride	ND		2.0	
Benzene	ND		2.0	
Dibromomethane	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**VOC TRIP BLANKS**	Lab Sample ID:	**SD30237-05**
Matrix:	Water	Collected By:	Date/Time Collected: 04/05/13 0:00
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/12/13 09:00
Units:	ug/L	Analyzed:	04/12/13 18:29

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND		2.0	
Trichloroethene	ND		2.0	
Bromodichloromethane	ND		2.0	
cis-1,3-Dichloropropene	ND		2.0	
4-Methyl-2-pentanone (MIBK)	ND		2.0	
trans-1,3-Dichloropropene	ND		2.0	
1,1,2-Trichloroethane	ND		2.0	
Toluene	ND		2.0	
1,3-Dichloropropane	ND		2.0	
2-Hexanone (MBK) *	ND		2.0	
Dibromochloromethane	ND		2.0	
1,2-Dibromoethane	ND		2.0	
Tetrachloroethene	ND		2.0	
1,1,1,2-Tetrachloroethane	ND		2.0	
Chlorobenzene	ND		2.0	
Ethylbenzene	ND		2.0	
Bromoform	ND		2.0	
Styrene	ND		2.0	
1,1,2,2-Tetrachloroethane	ND		2.0	
Xylenes, total	ND		2.0	
1,2,3-Trichloropropane	ND		2.0	
Isopropylbenzene	ND		2.0	
Bromobenzene	ND		2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

Notes and Definitions

M	Presence of material verified (i.e., positive detection). Value is estimated.
ND	Analyte NOT DETECTED at or above the reporting limit
*	Non-NELAP accredited

Method 8260 samples SD30237-01, SD30237-02, SD30237-03, SD30237-04;
Tentatively Identified Compounds (TICs) were detected in the volatile analysis. Please contact the laboratory if additional information about the TICs is needed.

Report Authorized by:

Sally Geyston
Sample Prep Unit Supervisor

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G104A**	Lab Sample ID:	**SD30238-01**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/04/13 10:55
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 17:08

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND	Y	2.0	
Vinyl chloride	ND	Y	2.0	
Bromomethane	ND	Y	2.0	
Chloroethane	ND	Y	2.0	
Trichlorofluoromethane	ND	Y	2.0	
Acetone	**62**	M, Y	10	
1,1-Dichloroethene	ND	Y	2.0	
Methylene chloride	ND	Y	5.0	
Carbon disulfide	ND	Y	2.0	
trans-1,2-Dichloroethene	ND	Y	2.0	
Methyl tert-butyl ether	**85**	Y	2.0	
1,1-Dichloroethane	ND	Y	2.0	
2-Butanone (MEK) *	ND	Y	10	
cis-1,2-Dichloroethene	ND	Y	2.0	
Bromochloromethane	ND	Y	2.0	
Chloroform	ND	Y	2.0	
2,2-Dichloropropane	ND	Y	2.0	
1,2-Dichloroethane	ND	Y	2.0	
1,1,1-Trichloroethane	ND	Y	2.0	
1,1-Dichloropropene	ND	Y	2.0	
Carbon tetrachloride	ND	Y	2.0	
Benzene	**170**	Y	2.0	
Dibromomethane	ND	Y	2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G104A**	Lab Sample ID:	**SD30238-01**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/04/13 10:55
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 17:08

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND	Y	2.0	
Trichloroethene	ND	Y	2.0	
Bromodichloromethane	ND	Y	2.0	
cis-1,3-Dichloropropene	ND	Y	2.0	
4-Methyl-2-pentanone (MIBK)	ND	Y	2.0	
trans-1,3-Dichloropropene	ND	Y	2.0	
1,1,2-Trichloroethane	ND	Y	2.0	
Toluene	**8.4**	Y	2.0	
1,3-Dichloropropane	ND	Y	2.0	
2-Hexanone (MBK) *	ND	Y	2.0	
Dibromochloromethane	ND	Y	2.0	
1,2-Dibromoethane	ND	Y	2.0	
Tetrachloroethene	ND	Y	2.0	
1,1,1,2-Tetrachloroethane	ND	Y	2.0	
Chlorobenzene	ND	Y	2.0	
Ethylbenzene	ND	Y	2.0	
Bromoform	ND	Y	2.0	
Styrene	ND	Y	2.0	
1,1,2,2-Tetrachloroethane	ND	Y	2.0	
Xylenes, total	**140**	Y	2.0	
1,2,3-Trichloropropane	ND	Y	2.0	
Isopropylbenzene	ND	Y	2.0	
Bromobenzene	ND	Y	2.0	

Reported:
05/07/13 07:41

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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05/07/13 07:41

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825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G104F**	Lab Sample ID:	**SD30238-02**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/04/13 13:25
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 17:42

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND	Y	2.0	
Vinyl chloride	ND	Y	2.0	
Bromomethane	ND	Y	2.0	
Chloroethane	ND	Y	2.0	
Trichlorofluoromethane	ND	Y	2.0	
Acetone	ND	Y	10	
1,1-Dichloroethene	ND	Y	2.0	
Methylene chloride	ND	Y	5.0	
Carbon disulfide	ND	Y	2.0	
trans-1,2-Dichloroethene	ND	Y	2.0	
Methyl tert-butyl ether	ND	Y	2.0	
1,1-Dichloroethane	ND	Y	2.0	
2-Butanone (MEK) *	ND	Y	10	
cis-1,2-Dichloroethene	ND	Y	2.0	
Bromochloromethane	ND	Y	2.0	
Chloroform	ND	Y	2.0	
2,2-Dichloropropane	ND	Y	2.0	
1,2-Dichloroethane	ND	Y	2.0	
1,1,1-Trichloroethane	ND	Y	2.0	
1,1-Dichloropropene	ND	Y	2.0	
Carbon tetrachloride	ND	Y	2.0	
Benzene	**110**	Y	2.0	
Dibromomethane	ND	Y	2.0	

Reported:
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Illinois Environmental Protection Agency Laboratory

825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G104F**	Lab Sample ID:	**SD30238-02**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/04/13 13:25
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 17:42

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND	Y	2.0	
Trichloroethene	ND	Y	2.0	
Bromodichloromethane	ND	Y	2.0	
cis-1,3-Dichloropropene	ND	Y	2.0	
4-Methyl-2-pentanone (MIBK)	**9.8**	Y	2.0	
trans-1,3-Dichloropropene	ND	Y	2.0	
1,1,2-Trichloroethane	ND	Y	2.0	
Toluene	**18**	Y	2.0	
1,3-Dichloropropane	ND	Y	2.0	
2-Hexanone (MBK) *	ND	Y	2.0	
Dibromochloromethane	ND	Y	2.0	
1,2-Dibromoethane	ND	Y	2.0	
Tetrachloroethene	ND	Y	2.0	
1,1,1,2-Tetrachloroethane	ND	Y	2.0	
Chlorobenzene	ND	Y	2.0	
Ethylbenzene	**310**	Y	2.0	
Bromoform	ND	Y	2.0	
Styrene	ND	Y	2.0	
1,1,2,2-Tetrachloroethane	ND	Y	2.0	
Xylenes, total	**640**	Y	2.0	
1,2,3-Trichloropropane	ND	Y	2.0	
Isopropylbenzene	**15**	Y	2.0	
Bromobenzene	ND	Y	2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G104G**	Lab Sample ID:	**SD30238-03**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/04/13 14:30
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 18:16

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND	Y	2.0	
Vinyl chloride	ND	Y	2.0	
Bromomethane	ND	Y	2.0	
Chloroethane	ND	Y	2.0	
Trichlorofluoromethane	ND	Y	2.0	
Acetone	ND	Y	10	
1,1-Dichloroethene	ND	Y	2.0	
Methylene chloride	ND	Y	5.0	
Carbon disulfide	ND	Y	2.0	
trans-1,2-Dichloroethene	ND	Y	2.0	
Methyl tert-butyl ether	ND	Y	2.0	
1,1-Dichloroethane	ND	Y	2.0	
2-Butanone (MEK) *	ND	Y	10	
cis-1,2-Dichloroethene	ND	Y	2.0	
Bromochloromethane	ND	Y	2.0	
Chloroform	ND	Y	2.0	
2,2-Dichloropropane	ND	Y	2.0	
1,2-Dichloroethane	ND	Y	2.0	
1,1,1-Trichloroethane	ND	Y	2.0	
1,1-Dichloropropene	ND	Y	2.0	
Carbon tetrachloride	ND	Y	2.0	
Benzene	**15**	Y	2.0	
Dibromomethane	ND	Y	2.0	

Reported:
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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**G104G**	Lab Sample ID:	**SD30238-03**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/04/13 14:30
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 18:16

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND	Y	2.0	
Trichloroethene	ND	Y	2.0	
Bromodichloromethane	ND	Y	2.0	
cis-1,3-Dichloropropene	ND	Y	2.0	
4-Methyl-2-pentanone (MIBK)	ND	Y	2.0	
trans-1,3-Dichloropropene	ND	Y	2.0	
1,1,2-Trichloroethane	ND	Y	2.0	
Toluene	**2.6**	Y	2.0	
1,3-Dichloropropane	ND	Y	2.0	
2-Hexanone (MBK) *	ND	Y	2.0	
Dibromochloromethane	ND	Y	2.0	
1,2-Dibromoethane	ND	Y	2.0	
Tetrachloroethene	ND	Y	2.0	
1,1,1,2-Tetrachloroethane	ND	Y	2.0	
Chlorobenzene	ND	Y	2.0	
Ethylbenzene	**18**	Y	2.0	
Bromoform	ND	Y	2.0	
Styrene	ND	Y	2.0	
1,1,2,2-Tetrachloroethane	ND	Y	2.0	
Xylenes, total	**23**	Y	2.0	
1,2,3-Trichloropropane	ND	Y	2.0	
Isopropylbenzene	ND	Y	2.0	
Bromobenzene	ND	Y	2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**VOC TRIP BLANKS**	Lab Sample ID:	**SD30238-04**
Matrix:	Water	Collected By:	Date/Time Collected: 04/04/13 0:00
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 18:50

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND	Y	2.0	
Vinyl chloride	ND	Y	2.0	
Bromomethane	ND	Y	2.0	
Chloroethane	ND	Y	2.0	
Trichlorofluoromethane	ND	Y	2.0	
Acetone	ND	Y	10	
1,1-Dichloroethene	ND	Y	2.0	
Methylene chloride	ND	Y	5.0	
Carbon disulfide	ND	Y	2.0	
trans-1,2-Dichloroethene	ND	Y	2.0	
Methyl tert-butyl ether	ND	Y	2.0	
1,1-Dichloroethane	ND	Y	2.0	
2-Butanone (MEK) *	ND	Y	10	
cis-1,2-Dichloroethene	ND	Y	2.0	
Bromochloromethane	ND	Y	2.0	
Chloroform	ND	Y	2.0	
2,2-Dichloropropane	ND	Y	2.0	
1,2-Dichloroethane	ND	Y	2.0	
1,1,1-Trichloroethane	ND	Y	2.0	
1,1-Dichloropropene	ND	Y	2.0	
Carbon tetrachloride	ND	Y	2.0	
Benzene	ND	Y	2.0	
Dibromomethane	ND	Y	2.0	

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(
Client Sample ID:	**VOC TRIP BLANKS**	Lab Sample ID:	**SD30238-04**
Matrix:	Water	Collected By:	Date/Time Collected: 04/04/13 0:00
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 18:50

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND	Y	2.0	
Trichloroethene	ND	Y	2.0	
Bromodichloromethane	ND	Y	2.0	
cis-1,3-Dichloropropene	ND	Y	2.0	
4-Methyl-2-pentanone (MIBK)	ND	Y	2.0	
trans-1,3-Dichloropropene	ND	Y	2.0	
1,1,2-Trichloroethane	ND	Y	2.0	
Toluene	ND	Y	2.0	
1,3-Dichloropropane	ND	Y	2.0	
2-Hexanone (MBK) *	ND	Y	2.0	
Dibromochloromethane	ND	Y	2.0	
1,2-Dibromoethane	ND	Y	2.0	
Tetrachloroethene	ND	Y	2.0	
1,1,1,2-Tetrachloroethane	ND	Y	2.0	
Chlorobenzene	ND	Y	2.0	
Ethylbenzene	ND	Y	2.0	
Bromoform	ND	Y	2.0	
Styrene	ND	Y	2.0	
1,1,2,2-Tetrachloroethane	ND	Y	2.0	
Xylenes, total	ND	Y	2.0	
1,2,3-Trichloropropane	ND	Y	2.0	
Isopropylbenzene	ND	Y	2.0	
Bromobenzene	ND	Y	2.0	

Reported:
05/07/13 07:41

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/05/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	10.0(

Notes and Definitions

Y	The laboratory analysis was performed on an unpreserved or improperly preserved sample.
M	Presence of material verified (i.e., positive detection). Value is estimated.
ND	Analyte NOT DETECTED at or above the reporting limit
*	Non-NELAP accredited

Method 8260 SD30238-01, SD30238-02, SD30238-03;
Tentatively Identified Compounds (TICs) were detected in the volatile analysis. Please contact the laboratory if additional information about the TICs is needed.

Report Authorized by:

Sally Geyston
Sample Prep Unit Supervisor

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/09/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	5.00
Client Sample ID:	**G124**	Lab Sample ID:	**SD30273-01**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 14:30
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 16:33

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
Chloromethane	ND		2.0	
Vinyl chloride	ND		2.0	
Bromomethane	ND		2.0	
Chloroethane	ND		2.0	
Trichlorofluoromethane	ND		2.0	
Acetone	ND		10	
1,1-Dichloroethene	ND		2.0	
Methylene chloride	ND		5.0	
Carbon disulfide	ND		2.0	
trans-1,2-Dichloroethene	ND		2.0	
Methyl tert-butyl ether	ND		2.0	
1,1-Dichloroethane	ND		2.0	
2-Butanone (MEK) *	ND		10	
cis-1,2-Dichloroethene	ND		2.0	
Bromochloromethane	ND		2.0	
Chloroform	ND		2.0	
2,2-Dichloropropane	ND		2.0	
1,2-Dichloroethane	ND		2.0	
1,1,1-Trichloroethane	ND		2.0	
1,1-Dichloropropene	ND		2.0	
Carbon tetrachloride	ND		2.0	
Benzene	ND		2.0	
Dibromomethane	ND		2.0	

Reported:
04/23/13 12:22

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LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/09/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	5.00
Client Sample ID:	**G124**	Lab Sample ID:	**SD30273-01**
Matrix:	Water	Collected By: GS	Date/Time Collected: 04/05/13 14:30
Sample Type:		Sample Depth:	Total Depth:

Volatiles Organic Compounds by Purge and Trap GC/MS

Method:	8260	Prepared:	04/10/13 09:00
Units:	ug/L	Analyzed:	04/10/13 16:33

Analyte	Result	Qualifier	Reporting Limit	Regulatory Level
1,2-Dichloropropane	ND		2.0	
Trichloroethene	ND		2.0	
Bromodichloromethane	ND		2.0	
cis-1,3-Dichloropropene	ND		2.0	
4-Methyl-2-pentanone (MIBK)	ND		2.0	
trans-1,3-Dichloropropene	ND		2.0	
1,1,2-Trichloroethane	ND		2.0	
Toluene	ND		2.0	
1,3-Dichloropropane	ND		2.0	
2-Hexanone (MBK) *	ND		2.0	
Dibromochloromethane	ND		2.0	
1,2-Dibromoethane	ND		2.0	
Tetrachloroethene	ND		2.0	
1,1,1,2-Tetrachloroethane	ND		2.0	
Chlorobenzene	ND		2.0	
Ethylbenzene	ND		2.0	
Bromoform	ND		2.0	
Styrene	ND		2.0	
1,1,2,2-Tetrachloroethane	ND		2.0	
Xylenes, total	ND		2.0	
1,2,3-Trichloropropane	ND		2.0	
Isopropylbenzene	ND		2.0	
Bromobenzene	ND		2.0	

Reported:
04/23/13 12:22

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825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/09/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	5.00

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04/23/13 12:22

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825 N. Rutledge Springfield, Illinois 62702 217.782.9780

LABORATORY RESULTS

Name:	**ROXANA VILLAGE OF**		
Project/Facility Number:	1191150002	Date Received :	04/09/13
Funding Code:	LP41	Visit Number:	
Trip ID:		Temperature C:	5.00

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
*	Non-NELAP accredited

Report Authorized by:

Sally Geyston
Sample Prep Unit Supervisor

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04/23/13 12:22