Illinois Environmental Protection Agency

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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 South 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)

Original copy submitted to Springfield. Electronic copies submitted separately directly to Collinsville FOS (Ali Al-Janabi) and Amy Butler.

AECOM
100 N. Broadway, 20th Floor
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July 14, 2023

Ms. Jacqueline M Cooperider, PE
Manager, Permit Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62702

Groundwater Monitoring Report – 2nd Quarter 2023

Roxana, Illinois

1191150002 – Madison County

Equilon Enterprises LLC d/b/a Shell Oil Products US

Log No. B-43R-CA-21

Dear Ms. Cooperider:

On behalf of Shell Oil Products US (Shell), AECOM Technical Services, Inc. (AECOM) is submitting the enclosed referenced report and RCRA Facility Groundwater, Leachate and Gas Reporting Form for your review. This sampling was required by Condition 7 of the Agency's letter dated August 5, 2010.

Electronic copies of the referenced report are being submitted separately directly to Ms. Amy Butler and IEPA Collinsville FOS (Ali Al-Janabi) with Illinois Environmental Protection Agency (IEPA).

If you have any questions during your review, please contact Leroy (Buddy) Bealer, Shell Principal Program Manager, at leroy.bealer@shell.com (484/632-7955), or Wendy Pennington at wendy.pennington@aecom.com (314/452-8929).

Yours sincerely,

AECOM, on behalf of Shell Oil Products US

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enclosures: 2nd Quarter 2023 Report, Roxana Interim Groundwater Monitoring Program
RCRA Facility Groundwater, Leachate and Gas Reporting Form

cc: Leroy (Buddy) Bealer, Shell
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Michelle Knapp, Atlantic Richfield Company
Greg Mollett, Greensfelder
Repositories - Roxana Public Library, website

AECOM

2nd Quarter 2023 Report

Roxana Interim Groundwater Monitoring Program

Prepared for:
Equilon Enterprises LLC dba Shell Oil Products US
Roxana, Illinois

Project number: 60697537

July 2023

Delivering a better world

Quality information

Prepared by	Checked by	Verified by	Approved by
			
Mary Massa, PG Geologist	Melissa Remiger Environmental Scientist	Rudy Torrini, Jr., Ph.D. Senior Project Manager	Wendy Pennington, PE Project Manager

Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

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1 – original	No	Ms. Jacqueline M Cooperider, PE IEPA, Springfield
None	Yes	Mr. Thomas Morgan Phillips 66
None	Yes	Ms. Amy Butler IEPA, Springfield
None	Yes	IEPA Collinsville FOS IEPA, Collinsville
None	Yes	Ms. Michelle Knapp Atlantic Richfield Company
None	Yes	Greg Mollett Greensfelder
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None	Yes	website

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Table of Contents

1 Introduction 1
2 Groundwater Sampling and Analytical Procedures 2
2.1 Health & Safety 2
2.2 Additional Activities or Modifications 2
2.3 Groundwater Monitoring Well Gauging and Sampling 2
2.4 Decontamination and Investigation-Derived Waste 3
2.5 Groundwater Sample Handling and Laboratory Testing 3
2.6 Data Quality Review and Data Management 3
3 Groundwater Sampling Results 5
3.1 Groundwater Monitoring Well Gauging Results 5
3.2 Data Quality Review Results 5
3.3 Analytical Results and Discussion 6
4 Summary and Conclusions 8
4.1 Limitations 8
5 References 9

Tables

Table 1 Quarterly Groundwater Monitoring Well Gauging Results
Table 2 Summary of Groundwater Monitoring Well Field Parameters
Table 3 Summary of Groundwater Monitoring Well Analytical Detections and Exceedances

Figures

Figure 1 Investigation Area Location Map
Figure 2 Roxana Interim Groundwater Monitoring Well Locations
Figure 3a Groundwater Contours 2Q23
Figure 3b Groundwater Contours 2Q23-West Fenceline
Figure 4a 2Q23 Thickness of LNAPL-West Fenceline
Figure 4b 2Q23 Thickness of LNAPL
Figure 5 2Q23 Groundwater Monitoring Well Analytical Exceedances
Figure 6 2Q23 Dissolved Phase Benzene Concentrations in Groundwater
Figure 7 2Q23 Cross-Section of Benzene Groundwater Analytical Results-Chaffer Avenue
Figure 8 2Q23 Cross-Section of Benzene Groundwater Analytical Results-Roxana Public Works Yard

Appendices

Appendix A Regulatory History
Appendix B Low Flow Groundwater Sampling Data Sheets
Appendix C Data Review Forms and Laboratory Analytical Reports
Appendix D-1 Charts – Benzene Concentrations Over Time
Appendix D-2 GWSDAT Charts
- 4th Street area – MW-22, ROST-4 PZ(C), P-59, and T-12
- Public Works Yard area – MW-7, MW-8, MW-25, and P-57

1 Introduction

AECOM Technical Services, Inc. (AECOM) is submitting this report on behalf of Equilon Enterprises LLC d/b/a Shell Oil Products US (Shell) for the 2nd Quarter 2023 (2Q23) groundwater monitoring well gauging and sampling conducted in the Village of Roxana, Illinois (**Figure 1**). The Interim Groundwater Monitoring Program (Program) was established based on direction from Illinois Environmental Protection Agency (IEPA) dated August 5, 2010 (IEPA, 2010a), 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) 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). For purposes of presentation in this report only, the combined area is collectively referred to as the "Investigation Area."

The bulleted list below summarizes current regulatory-related correspondence between AECOM, on behalf of Shell, and the IEPA during this reporting period (April 2023 through June 2023); prior regulatory-related correspondence which has not yet been addressed by IEPA can be found in **Appendix A**.

- On April 4, 2023, IEPA approved with conditions the former Public Works Yard (FPWY) Construction and Operation of Steam Enhanced Extraction Pretreatment System permit. The operational portion of this permit expires February 28, 2028 (IEPA, 2023a).
- On May 5, 2023, IEPA approved with conditions the PWY Final Design Report and Construction Work Plan (FDRCWP) for in-situ thermal remediation (ISTR), specifically Steam Enhanced Extraction (SEE), to reduce and remediate benzene as well as other VOCs present in the treatment target zone (TIZ) of SEE at the PWY (IEPA, 2023b).
- On May 26, 2023, AECOM, on behalf of Shell, submitted SOP revisions outlined in the IEPA SOP approval letter with comments dated March 13, 2023. The IEPA letter approved several previously submitted SOPs and requested some specific revisions to selected SOPs as well as a new SOP related to Investigative Derived Waste (IDW) management.

Groundwater samples were collected and analyzed during 2Q23 to meet the requirements of the Interim Groundwater Monitoring Program, as specified in the guidance presented in **Appendix A**. **Figure 2** shows the groundwater monitoring wells that are part of the interim monitoring well network.

2 Groundwater Sampling and Analytical Procedures

The groundwater monitoring well gauging, sample collection, and analytical procedures are discussed in this section. Gauging and sampling procedures are based on the Interim Groundwater Monitoring Program, as outlined in the IEPA's letter dated August 5, 2010 (IEPA, 2010a) described in **Section 1**, and as modified based on other correspondence described in **Appendix A**. Groundwater samples and gauging data were collected using the most current AECOM standard operating procedures (SOPs) for the project.

2.1 Health & Safety

The quarterly sampling activities were performed in general accordance with the project-specific Health and Safety Plan (HASP), dated January 11, 2023 (AECOM, 2023a).

In addition to HASP guidance, quarterly activities were performed in accordance with federal, state, AECOM, and site-specific COVID-19 procedures, following safe working precautions and social distancing recommendations.

2.2 Additional Activities or Modifications

The following additional work activities were conducted during 2Q23:

- Well integrity inspections were performed at the groundwater monitoring wells listed in the Roxana Interim Groundwater Monitoring Program. In June 2023, well maintenance activities were performed including repairing and/or replacing flush mount well protectors and concrete monitoring well pads.

2.3 Groundwater Monitoring Well Gauging and Sampling

Groundwater Monitoring Well Gauging

The comprehensive quarterly groundwater monitoring well gauging event was conducted between April 3rd and 5th, 2023. Wells MW-14 and P-66 were gauged on April 6, 2023 due to inaccessibility during the comprehensive groundwater gauging event. The gauging activities were conducted in conjunction with the 2Q23 gauging event for the WRR to evaluate groundwater flow direction and identify possible LNAPL in the Investigation Area. Depth to LNAPL (if present) and depth to water were recorded. Quarterly groundwater monitoring well gauging results can be found in **Table 1**. The groundwater gauging data table also includes well-head PID (photoionization detector) results.

Low-Flow Groundwater Purging and Sampling

Groundwater samples were collected from groundwater monitoring wells between April 6th and April 21st, 2023. Groundwater samples were collected using the most current low-flow groundwater purging and sampling related SOPs, which have previously been provided to IEPA. Data are included in this report and discussed in **Section 3**.

Groundwater monitoring wells MW-1 through MW-7, MW-9 through MW-14; MW-16; MW-22 through MW-28; P-54; P-56; P-57; P-59; P-74; P-93A, B, and C; P-114R; ROST-3-MW; ROST-4-PZ(C); ROST-4-PZ(E); ROST-4-PZ(G); and T-12 were purged and sampled using a stainless-steel submersible pump (pump), low-flow controller, and designated[1] polyethylene tubing.

Groundwater monitoring well P-93D was purged and sampled using a dedicated stainless-steel QED Environmental Systems (QED) Well Wizard® groundwater sampling pump and dedicated bonded polyethylene tubing.

For both sampling methods pumping was performed at a low flow rate (≤ 300 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 potential (ORP)) were

[1] All designated tubing is stored in a sealed bag designated for a particular groundwater monitoring well between sampling events; designated tubing used with stainless steel submersible pumps is replaced annually prior to the first quarter sampling event.

measured and recorded after every flow-through cell volume. Once stabilization was achieved or a maximum purge time of two hours was reached, groundwater samples were collected for VOCs and semi-volatile organic compound (SVOC) analysis.

Groundwater monitoring wells located inside the WRR and designated for sampling in the Interim Groundwater Monitoring Program, P-55R, P-66, and P-68, contained LNAPL when gauged and, therefore, were not sampled.

Groundwater sampling field parameters can be found in **Table 2**, and low flow groundwater sampling data sheets are included in **Appendix B**.

2.4 Decontamination and Investigation-Derived Waste

Decontamination

Field personnel and equipment underwent decontamination procedures in accordance with project SOPs previously provided to IEPA to ensure the health and safety of those present, to maintain sample integrity, and to minimize cross contamination. Reusable sampling equipment (e.g., groundwater pump) was decontaminated after each sample location using the most current decontamination SOPs.

Investigation-Derived Waste

Investigation-derived waste (IDW), such as purge water and decontamination fluid generated during groundwater sampling activities, was collected, staged, and disposed in accordance with RCRA, Illinois and United States Department of Transportation (DOT) regulations. Expendable materials (e.g., disposable sampling equipment such as gloves and tubing) were decontaminated, if necessary, collected in trash bags, and disposed as municipal waste.

Decontamination fluid and purge water from groundwater monitoring wells MW-4, MW-7, and MW-25 are managed as hazardous waste based on prior characterization in conjunction with generator knowledge, and decontamination fluid and purge water from other groundwater monitoring wells in the Village are managed as non-hazardous waste based on prior characterization in conjunction with generator knowledge; both hazardous and non-hazardous waste were disposed at the Heritage facility in Indianapolis, Indiana.

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

2.5 Groundwater Sample Handling and Laboratory Testing

Samples were collected in pre-preserved 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 ID format is "well ID-ROX-date". COCs are included with laboratory analytical reports in **Appendix C**.

Upon collection and labeling, sample containers were immediately placed inside an iced cooler and packed in such a way as to help prevent breakage and maintain sample temperature within 0-6°C without freezing. The samples were then delivered via overnight courier, under the proper COC documentation, to Eurofins Environment Testing America Southeast, LLC (EETA Southeast) in Pensacola, Florida for analysis.

Samples were analyzed by EETA Southeast for VOCs via USEPA Methods 8260B and 8011, for SVOCs via USEPA Method 8270D, and for Polycyclic Aromatic Hydrocarbons (PAHs) via USEPA Method 8270D Low Level (LL). USEPA Method 8011 was used for select VOCs (1,2-dibromoethane and 1,2-dibromo-3-chloropropane) in order to achieve lower reporting limits specified in the most recent version of the Permit. Per direction from IEPA, the Interim Groundwater Monitoring Program concentration limits need to be consistent with those in the Permit.

2.6 Data Quality Review and Data Management

Laboratory data were provided in electronic form and included data qualifiers on the basis of the laboratory's quality control or to indicate sample analysis information. The data were independently reviewed and qualified by AECOM.

One hundred percent of the data were subjected to a data quality review. Evaluation of the data followed procedures outlined in the USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020). Data qualifiers were also added by AECOM, as appropriate, and are included on **Table 3**, and in the laboratory results in **Appendix C**. The results of the data quality 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. AECOM maintains the files for the site and the database management system.

3 Groundwater Sampling Results

This section presents the results of the 2Q23 groundwater gauging and sampling event.

3.1 Groundwater Monitoring Well Gauging Results

The comprehensive quarterly groundwater monitoring well gauging for the 2Q23 event was conducted between April 3rd and April 5th, 2023. Wells MW-14 and P-66 were gauged on April 6, 2023 due to inaccessibility during the comprehensive groundwater gauging event. This groundwater monitoring well gauging was conducted in accordance with the Interim Groundwater Monitoring Program, and the results can be found in **Table 1**. Groundwater levels in most wells in the vicinity of the West Fenceline have fallen approximately 0.5 feet since the 1Q23 gauging event. Groundwater levels in most wells in the central and eastern portions of the WRR have fallen approximately 0.75 feet since the 1Q23 gauging event. Water levels are above the top of the screens in the majority of the wells gauged during the 2Q23 event. The potentiometric surface observed during the 2Q23 groundwater monitoring well gauging (**Figures 3a** and **3b**) illustrates an inward gradient with groundwater flow toward the WRR groundwater production wells.

During the 2Q23 quarterly groundwater monitoring well gauging event, LNAPL was detected in three Interim Groundwater Monitoring Program groundwater monitoring wells (P-55R, P-66, and P-68) (**Table 1**). These monitoring wells are located in the WRR. In these wells, LNAPL thicknesses ranged from 0.11 to 1.42 feet. Measured LNAPL thickness and the number of locations where it was observed during the 2Q23 quarterly gauging events was generally comparable to that observed in 1Q23.

The Illinois Emergency Management Agency (IEMA) was notified on November 22, 2020 of a release of gasoline from a Buckeye Partners (Wood River Pipeline, LLC) pipeline located to the south of well P-58 along the WRR West Fenceline, and to the north of well P-66 on WRR Main Property as indicated on **Figures 2, 3b, 4a,** and **5**. The release is associated with IEPA Violation Notice L-2021-00084, LPC #1190905036 – Madison County. Groundwater monitoring wells P-58 and P-66 have yielded some anomalous observations/detections since the reported release; LNAPL has recently been detected in P-66 since 2Q22, however LNAPL was previously last detected in P-66 during 4Q12. These wells will be gauged, and sampled in the absence of LNAPL, during the quarterly Roxana Interim Groundwater Monitoring program.

During the 2Q23 quarterly groundwater gauging event, LNAPL was not observed in groundwater monitoring wells located in the Village (**Table 1**). **Figures 4a** and **4b** illustrate the measured LNAPL thickness observed along the West Fenceline and inside the refinery, respectively, during the 2Q23 gauging event.

During 2Q23, LNAPL was observed in groundwater monitoring wells P-55R, P-66, and P-68 located on WRR property at a thickness greater than 0.10 feet and was removed using bailers[2]. The recovered LNAPL was placed in a metal drum and will be sent for reuse of in accordance with RCRA, Illinois and United States Department of Transportation (DOT) regulations.

3.2 Data Quality Review Results

A total of 14 sample delivery groups (SDGs) were prepared and sent to EETA Southeast for the 2Q23 event. Fifty-one different groundwater sample sets were prepared and analyzed for VOCs and SVOCs (including PAHs). The 51 samples included 40 different investigative sample sets, five field duplicate sets, and three matrix spike/matrix spike duplicate (MS/MSD) sets. SDGs for 2Q23 are presented in **Appendix C**.

Trip blanks (TBs), equipment blanks (EBs), and laboratory method blanks were analyzed to evaluate for the existence and magnitude of any contamination resulting from field and laboratory activities. Six different EB sets were collected for this quarter. A TB set was included in every cooler that contained samples for VOC analysis. A total of 14 TB sets were analyzed for groundwater VOCs. Laboratory method blanks were analyzed with every analytical batch.

[2] LNAPL > 0.10 feet is a project specific criterion for removal, based on practicality with the removal technique.

Based on laboratory control sample (LCS), MS/MSD, surrogate, holding time, and field duplicate criteria, the groundwater analytical results reported were accepted for their intended use.

- Due to anomalous Method 8270_LL PAH results, the laboratory re-analyzed for PAHs in sample ROST3MW-ROX-041123. The results from the re-analysis were consistent with historical data, and the original results were deemed by the laboratory to be false positives.

- Due to Method 8270_LL PAH and/or Method 8270 SVOCs results outside historical range in 1Q23, EETA Southeast investigated established laboratory procedure and identified possible sources of latent laboratory contamination. In response to this discovery, EETA Southeast implemented supplemental protocols to monitor newly deemed sources of contamination to allow for preventative action prior to the analysis of samples.

- With regard to 1Q23 quarterly groundwater data, the laboratory issued a Corrective Action Report (CAR) stating that through confirmation analyses, many previous detections were not confirmed and were therefore deemed laboratory contamination. The CAR verification procedures were still in place in 2Q23. The laboratory report containing sample ROST3MW-ROX-041123 data was revised to correct the reporting of detect and non-detect PAHs.

Analytical results qualified by AECOM are specified in the data reviews presented in **Appendix C**.

3.3 Analytical Results and Discussion

Table 2 presents cumulative information on groundwater sampling field parameters for Main Sand aquifer wells. These results are consistent with those observed in the 2Q23 sampling event. The laboratory analytical results for the groundwater samples collected during this event are presented in **Table 3**.

Analytical detections were compared to the concentration limits as provided in Condition IV(E)(1) of the Permit for the WRB Refining LP Wood River Refinery[3]. These concentration limits include the Groundwater Quality Standards for Class I: Potable Resource Groundwater (35 IAC 620, Subpart D, Section 410) (Part 620) (IEPA, 2012c), 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) (IEPA, 2007), and the IEPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables) (IEPA, 2018). Where screening values were available from multiple sources from the ones mentioned above, screening values from Part 620 were used preferentially over the screening values found in TACO and Chemicals not in TACO sources. All three sources are checked on a quarterly basis to ensure the most current published screening values are being used. The results of this screening comparison are presented in **Table 3**.

Samples from 11 groundwater monitoring wells in the Interim Groundwater Monitoring Program (four in the Village, seven in the WRR along the West Fenceline) exhibited exceedances of the groundwater screening criteria for one or more of the following constituents:

- Benzene
- Bromodichloromethane
- 1,2,4-Trimethylbenzene
- Benzo(a)anthracene
- 2-Methylnaphthalene
- Phenol

Figure 5 presents concentrations of analytes that exceeded the indicated screening criteria for 2Q23. These findings are generally consistent with the results from previous sampling events.

Figure 6 presents a plan view depiction of benzene analytical results in groundwater across the site. **Figure 7** presents a cross-section along Chaffer Avenue 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.

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

Appendix D-1 contains benzene concentration trend plots for selected monitoring wells[4] to represent groundwater conditions in the 4th Street area and Public Works Yard area, respectively:

- 4th Street area – MW-22, ROST-4 PZ(C), P-59, and T-12
- Public Works Yard area – MW-7, MW-8, MW-25, and P-57

Beginning in 2Q21, a Mann-Kendall analysis of the analytical benzene results from the eight sampled groundwater wells in the 4th Street and Public Works Yard areas was conducted. The Mann-Kendall analysis was performed using GWSDAT (GroundWater Spatio-Temporal Data Analysis Tool). As of 2Q23, statistically significant downward trends were displayed for seven wells, no wells displayed statistically significant increasing trends, and the remaining well displayed a trend that is not statistically significant[5]. Results from the Mann-Kendall analysis conducted via GWSDAT are presented in **Appendix D-2**.

[4] In a meeting with IEPA on April 5, 2018, the AECOM presentation included benzene concentration trend plots pertinent to GMZ discussion. IEPA verbally requested that benzene concentration trend plots for selected monitoring wells be incorporated into Roxana Program quarterly reports.
[5] Results are significant if p value is equal to or below 0.05.

4 Summary and Conclusions

AECOM conducted the 2Q23 Interim Groundwater Monitoring Program, and the following conclusions are based on the data and information collected as part of this program:

- During 2Q23, groundwater level data indicate groundwater flow from the Investigation Area is moving toward groundwater production wells at the WRR. Groundwater levels in most wells in the vicinity of the West Fenceline have fallen approximately 0.5 feet since the 1Q23 gauging event. Groundwater levels in most wells in the central and eastern portion of the WRR have fallen approximately 0.75 feet since the 1Q23 gauging event.

- Measured LNAPL thickness and the number of locations where it was observed during the 2Q23 quarterly gauging events was generally comparable to that observed in 1Q23. LNAPL has recently been detected in P-66 since 2Q22, however, LNAPL was previously last detected in P-66 during 4Q12. WRB/P66 notified IEMA on November 22, 2020 of a release of gasoline from a Buckeye Partners (Wood River Pipeline, LLC) pipeline located to the south of well P-58 along the WRR West Fenceline, and to the north of well P-66 on WRR Main Property. Wells P-58 and P-66 will be gauged and sampled in the absence of LNAPL during the 3Q23 Roxana Interim Groundwater Monitoring program.

- The analytical results from 2Q23 are generally consistent with the results from previous sampling events, with the exception of initial PAH results in sample ROST3MW-ROX-041123. The laboratory issued a Corrective Action Report (CAR) in 1Q23 stating latent laboratory contamination sources had been identified; CAR verification procedures were still in place in 2Q23. Through confirmation analysis, previous PAH detections in sample ROST3MW-ROX-041123were not confirmed and were therefore deemed laboratory contamination. Re-analyzed PAH results were generally consistent with those from previous quarters.

- Benzene concentration plots presented in **Appendix D-1** continue to show stable or decreasing trends.

- GWSDAT charts presented in **Appendix D-2** show statistically significant downward trends displayed for seven wells, no wells displayed statistically significant increasing trends, and the remaining well displayed a trend that is not statistically significant.

- The data and observations presented in this groundwater monitoring report provide further support for the conclusions and requested course of action presented in the proposed Groundwater Management Zone (GMZ) (AECOM 2016b).

4.1 Limitations

Shell shall have the right to make and retain copies of and use all Work Product provided. However, such use shall be limited to the particular Site and project for which the Work Product is provided. Shell and its agents may release the Work Product to third parties at its sole risk and discretion. This report is based on data, site conditions, and other information that is generally applicable as of the date of this report, and the conclusions and recommendations herein are therefore applicable only to that time frame and to the report in its entirety.

Data may have been provided to AECOM by Shell or a third party and used in preparing this report. AECOM has relied on this information as furnished, and is neither responsible for, nor has confirmed the accuracy of this information.

5 References

AECOM, 2015 (AECOM, 2015); *Demonstration to Verify the Extent of Groundwater Contamination Has Been Delineated Roxana, Illinois.* Prepared for Shell Oil Products US (Shell), dated April 16, 2015.

AECOM, 2016 (AECOM, 2016a); *Additional Information – Groundwater Management Zone*. Prepared for Shell Oil Products US (Shell), dated January 29, 2016.

AECOM, 2016 (AECOM, 2016b); *Proposed Groundwater Management Zone*. Prepared for Shell Oil Products US (Shell), dated May 19, 2016.

AECOM, 2016 (AECOM, 2016c); *Response to IEPA Letter dated July 27, 2016 – Groundwater Conditions near East 3rd and Chaffer Streets*. Prepared for Shell Oil Products US (Shell), dated October 14, 2016.

AECOM, 2018 (AECOM, 2018a); *Response to IEPA Emails dated October 4-23, 2017 – GMZ Response to Comments*. Prepared for Shell Oil Products US (Shell), dated January 2, 2018.

AECOM, 2018 (AECOM, 2018b); *Groundwater Management Zone – Additional Information*. Prepared for Shell Oil Products US (Shell), dated September 26, 2018.

AECOM, 2020 (AECOM, 2020a); *Response to IEPA Notice of Permit Renewal Application Incompleteness*. Prepared for Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated September 4, 2020.

AECOM, 2020 (AECOM, 2020b); *Class 1* Permit Modification – Response to Condition 4.b. in Attachment A and Condition V.D.3. of the 12/20/2019 IEPA Letter with Modified Permit*. Prepared for Shell Oil Products US (Shell), dated October 12, 2020.

AECOM, 2022 (AECOM, 2022a); *Public Works Yard (PWY) Steam Enhanced Extraction (SEE) Workplan*. Prepared for Shell Oil Products US (Shell), dated January 31, 2022.

AECOM, 2022 (AECOM, 2022b); *Additional Information Supplemental to the Proposed Groundwater Management Zone*. Prepared for Shell Oil Products US (Shell), dated March 18, 2022.

AECOM, 2022 (AECOM, 2022c); *Old Public Works Yard Steam Enhanced Extraction – Response to 8/22/22 Letter and Final Design Report & Construction Work Plan*. Prepared for Shell Oil Products US (Shell), dated December 16, 2022.

AECOM, 2023 (AECOM, 2023a); *Shell GESS Health and Safety Plan: Rand Avenue, Roxana / Route 111, and WRR Investigation and Remediation*. Prepared for Shell Oil Products US (Shell), dated January 11, 2023.

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Tables

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
MW 01											
3Q22	442.83	7/5/2022	NE	38.89	NA	NA	NA	403.94	394.03 - 384.03 (48.80 - 58.80)	0.0	*
4Q22		10/18/2022	NE	39.75	NA	NA	NA	403.08		0.0	*
1Q23		1/3/2023	NE	40.50	NA	NA	NA	402.33		0.0	*
2Q23		4/3/2023	NE	40.76	NA	NA	NA	402.07		0.0	*
MW 02											
3Q22	443.93	7/5/2022	NE	40.28	NA	NA	NA	403.65	394.06 - 384.06 (49.87 - 59.87)	5.0	*
4Q22		10/17/2022	NE	40.95	NA	NA	NA	402.98		146.7	*
1Q23		1/3/2023	NE	41.74	NA	NA	NA	402.19		154.2	*
2Q23		4/3/2023	NE	42.03	NA	NA	NA	401.90		0.0	*
MW 03											
3Q22	430.23	7/5/2022	NE	25.89	NA	NA	NA	404.34	395.56 - 385.56 (34.67 - 44.67)	0.0	*
4Q22		10/18/2022	NE	27.05	NA	NA	NA	403.18		0.0	*
1Q23		1/3/2023	NE	27.80	NA	NA	NA	402.43		0.0	*
2Q23		4/3/2023	NE	28.03	NA	NA	NA	402.20		0.0	*
MW 04											
3Q22	441.31	7/5/2022	NE	37.29	NA	NA	NA	404.02	396.25 - 386.25 (45.06 - 55.06)	0.0	*
4Q22		10/18/2022	NE	38.20	NA	NA	NA	403.11		0.0	*
1Q23		1/3/2023	NE	38.95	NA	NA	NA	402.36		0.0	*
2Q23		4/3/2023	NE	39.21	NA	NA	NA	402.10		0.0	*
MW 05											
3Q22	429.98	7/6/2022	NE	25.68	NA	NA	NA	404.30	396.01 - 386.01 (33.97 - 43.97)	0.0	*
4Q22		10/18/2022	NE	26.73	NA	NA	NA	403.25		0.0	*
1Q23		1/3/2023	NE	27.48	NA	NA	NA	402.50		0.0	*
2Q23		4/3/2023	NE	27.68	NA	NA	NA	402.30		0.0	*
MW 06A											
3Q22	432.33	7/6/2022	NE	26.86	NA	NA	NA	405.47	398.48 - 388.48 (33.85 - 43.85)	0.0	*
4Q22		10/18/2022	NE	28.94	NA	NA	NA	403.39		0.0	*
1Q23		1/3/2023	NE	29.60	NA	NA	NA	402.73		0.0	*
2Q23		4/3/2023	NE	29.80	NA	NA	NA	402.53		0.0	*
MW 06B											
3Q22	432.37	7/6/2022	NE	27.91	NA	NA	NA	404.46	368.32 - 363.32 (64.05 - 69.05)	0.0	*
4Q22		10/18/2022	NE	28.97	NA	NA	NA	403.40		0.0	*
1Q23		1/3/2023	NE	29.65	NA	NA	NA	402.72		0.0	*
2Q23		4/3/2023	NE	29.85	NA	NA	NA	402.52		0.0	*
MW 06C											
3Q22	432.18	7/6/2022	NE	27.70	NA	NA	NA	404.48	347.23 - 342.23 (84.95 - 89.95)	0.0	*
4Q22		10/18/2022	NE	28.76	NA	NA	NA	403.42		0.0	*
1Q23		1/3/2023	NE	29.44	NA	NA	NA	402.74		0.0	*
2Q23		4/3/2023	NE	29.69	NA	NA	NA	402.49		0.0	*
MW 06D											
3Q22	432.06	7/6/2022	NE	27.54	NA	NA	NA	404.52	327.34 - 322.34 (104.72 - 109.72)	0.0	*
4Q22		10/18/2022	NE	28.62	NA	NA	NA	403.44		0.0	*
1Q23		1/3/2023	NE	29.31	NA	NA	NA	402.75		0.0	*
2Q23		4/3/2023	NE	29.50	NA	NA	NA	402.56		0.0	*
MW 07											
3Q22	443.31	7/5/2022	NE	39.37	NA	NA	NA	403.94	400.39 - 390.39 (42.92 - 52.92)	0.0	*
4Q22		10/17/2022	NE	40.22	NA	NA	NA	403.09		0.0	*
1Q23		1/3/2023	NE	40.98	NA	NA	NA	402.33		0.4	*
2Q23		4/3/2023	NE	41.19	NA	NA	NA	402.12		0.0	*
MW 08											
3Q22	434.43	7/6/2022	NE	30.22	NA	NA	NA	404.21	400.83 - 390.83 (33.60 - 43.60)	0.0	*
4Q22		10/18/2022	NE	31.20	NA	NA	NA	403.23		0.0	*
1Q23		1/3/2023	NE	31.94	NA	NA	NA	402.49		0.0	*
MW 09											
3Q22	445.28	7/5/2022	NE	40.73	NA	NA	NA	404.55	399.24 - 389.24 (46.04 - 56.04)	0.0	*
4Q22		10/17/2022	NE	41.33	NA	NA	NA	403.95		0.0	*
1Q23		1/3/2023	NE	42.16	NA	NA	NA	403.12		0.0	*
2Q23		4/3/2023	NE	42.55	NA	NA	NA	402.73		0.0	*

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MW 10											
3Q22	445.06	7/5/2022	NE	40.28	NA	NA	NA	404.78	400.63 - 390.63 (44.43 - 54.43)	0.0	*
4Q22		10/17/2022	NE	41.26	NA	NA	NA	403.80		0.0	*
1Q23		1/3/2023	NE	41.99	NA	NA	NA	403.07		0.0	*
2Q23		4/3/2023	NE	42.44	NA	NA	NA	402.62		0.0	*
MW 11											
3Q22	442.38	7/5/2022	NE	38.24	NA	NA	NA	404.14	400.72 - 390.72 (41.66 - 51.66)	0.0	*
4Q22		10/17/2022	NE	38.91	NA	NA	NA	403.47		0.0	*
1Q23		1/3/2023	NE	39.77	NA	NA	NA	402.61		0.1	*
2Q23		4/3/2023	NE	40.03	NA	NA	NA	402.35		0.0	*
MW 12											
3Q22	442.64	7/5/2022	NE	38.60	NA	NA	NA	404.04	400.72 - 390.72 (41.92 - 51.92)	0.0	*
4Q22		10/17/2022	NE	39.36	NA	NA	NA	403.28		0.0	*
1Q23		1/3/2023	NE	40.22	NA	NA	NA	402.42		0.0	*
2Q23		4/3/2023	NE	40.47	NA	NA	NA	402.17		0.0	*
MW 13											
3Q22	430.30	7/6/2022	NE	25.50	NA	NA	NA	404.80	405.50 - 395.50 (24.80 - 34.80)	0.0	
4Q22		10/18/2022	NE	26.78	NA	NA	NA	403.52		0.0	
1Q23		1/4/2023	NE	27.80	NA	NA	NA	402.50		0.2	
2Q23		4/4/2023	NE	27.66	NA	NA	NA	402.64		0.8	
MW 14											
3Q22	434.61	7/7/2022	NE	30.13	NA	NA	NA	404.48	401.19 - 391.19 (33.42 - 43.42)	16.6	*
4Q22		10/19/2022	NE	30.96	NA	NA	NA	403.65		64.8	*
1Q23		1/4/2023	NE	31.95	NA	NA	NA	402.66		57.6	*
2Q23		4/6/2023	NE	32.32	NA	NA	NA	402.29		43.8	*
MW 16											
3Q22	443.60	7/5/2022	NE	39.85	NA	NA	NA	403.75	406.10 - 396.10 (37.50 - 47.50)	0.0	
4Q22		10/17/2022	NE	40.46	NA	NA	NA	403.14		0.0	
1Q23		1/3/2023	NE	41.27	NA	NA	NA	402.33		0.0	
2Q23		4/3/2023	NE	41.52	NA	NA	NA	402.08		0.0	
MW 17											
3Q22	441.78	7/5/2022	NE	38.39	NA	NA	NA	403.39	407.49 - 392.49 (34.29 - 49.29)	0.0	
4Q22		10/17/2022	NE	38.74	NA	NA	NA	403.04		0.1	
1Q23		1/3/2023	NE	39.44	NA	NA	NA	402.34		0.0	
2Q23		4/3/2023	NE	39.69	NA	NA	NA	402.09		0.0	
MW 18											
3Q22	442.24	7/5/2022	NE	38.87	NA	NA	NA	403.37	407.32 - 392.32 (34.92 - 49.92)	0.0	
4Q22		10/17/2022	NE	39.33	NA	NA	NA	402.91		0.0	
1Q23		1/3/2023	NE	40.03	NA	NA	NA	402.21		0.0	
2Q23		4/3/2023	NE	40.25	NA	NA	NA	401.99		0.0	
MW 19											
3Q22	442.98	7/5/2022	NE	39.54	NA	NA	NA	403.44	406.64 - 391.64 (36.34 - 51.34)	0.0	
4Q22		10/17/2022	NE	40.01	NA	NA	NA	402.97		0.0	
1Q23		1/3/2023	NE	40.77	NA	NA	NA	402.21		0.0	
2Q23		4/3/2023	NE	41.06	NA	NA	NA	401.92		0.0	
MW 20											
3Q22	443.86	7/5/2022	NE	40.36	NA	NA	NA	403.50	407.98 - 392.98 (35.88 - 50.88)	0.0	
4Q22		10/17/2022	NE	40.92	NA	NA	NA	402.94		0.8	
1Q23		1/3/2023	NE	41.70	NA	NA	NA	402.16		0.0	
2Q23		4/3/2023	NE	42.01	NA	NA	NA	401.85		0.0	
MW 21											
3Q22	444.01	7/5/2022	NE	40.31	NA	NA	NA	403.70	409.00 - 394.00 (35.01 - 50.01)	0.0	
4Q22		10/17/2022	NE	41.04	NA	NA	NA	402.97		0.0	
1Q23		1/3/2023	NE	41.80	NA	NA	NA	402.21		0.0	
2Q23		4/3/2023	NE	42.02	NA	NA	NA	401.99		0.0	
MW 22											
3Q22	442.38	7/5/2022	NE	38.56	NA	NA	NA	403.82	403.95 - 393.95 (38.43 - 48.43)	0.0	
4Q22		10/17/2022	NE	39.12	NA	NA	NA	403.26		0.1	
1Q23		1/3/2023	NE	39.93	NA	NA	NA	402.45		0.0	
2Q23		4/3/2023	NE	40.21	NA	NA	NA	402.17		0.0	

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MW 23											
3Q22	431.57	7/6/2022	NE	26.94	NA	NA	NA	404.63	402.55 - 392.55 (29.02 - 39.02)	0.0	*
4Q22		10/18/2022	NE	28.26	NA	NA	NA	403.31		0.0	*
1Q23		1/3/2023	NE	29.06	NA	NA	NA	402.51		0.0	
2Q23		4/3/2023	NE	29.17	NA	NA	NA	402.40		0.0	
MW 24											
3Q22	443.65	7/7/2022	NE	39.55	NA	NA	NA	404.10	404.04 - 394.04 (39.61 - 49.61)	0.0	*
4Q22		10/17/2022	NE	40.22	NA	NA	NA	403.43		0.0	
1Q23		1/3/2023	NE	41.07	NA	NA	NA	402.58		0.0	
2Q23		4/3/2023	NE	41.36	NA	NA	NA	402.29		0.0	
MW 25											
3Q22	438.53	7/5/2022	NE	34.41	NA	NA	NA	404.12	402.94 - 392.94 (35.59 - 45.59)	8.9	*
4Q22		10/18/2022	NE	35.38	NA	NA	NA	403.15		93.3	*
1Q23		1/3/2023	NE	36.12	NA	NA	NA	402.41		98.6	
2Q23		4/3/2023	NE	36.35	NA	NA	NA	402.18		0.0	
MW 26											
3Q22		NM	NM	NM	NA	NA	NA	NA	403.08 - 393.08 (38.15 - 48.15)	NM	Inaccessible due to parked vehicle.
4Q22		10/18/2022	NE	38.13	NA	NA	NA	403.10		0.0	*
1Q23		1/3/2023	NE	38.85	NA	NA	NA	402.38		0.0	
2Q23		4/3/2023	NE	39.14	NA	NA	NA	402.09		0.0	
MW 27											
3Q22	443.60	7/5/2022	NE	39.08	NA	NA	NA	404.52	403.81 - 393.81 (39.79 - 49.79)	0.0	*
4Q22		10/17/2022	NE	39.08	NA	NA	NA	404.52		0.0	*
1Q23		1/3/2023	NE	39.86	NA	NA	NA	403.74		0.0	
2Q23		4/3/2023	NE	40.57	NA	NA	NA	403.03		0.0	
MW 28											
3Q22	443.55	7/5/2022	NE	38.27	NA	NA	NA	405.28	409.94 - 399.94 (33.61 - 43.61)	0.0	
4Q22		10/17/2022	NE	38.32	NA	NA	NA	405.23		0.0	
1Q23		1/3/2023	NE	39.08	NA	NA	NA	404.47		0.0	
2Q23		4/3/2023	NE	39.68	NA	NA	NA	403.87		0.0	
P 01											
3Q22	442.98	7/7/2022	NE	32.02	NA	NA	NA	410.96	380.76 - 375.76 (62.22 - 67.22)	0.0	*
4Q22		10/18/2022	NE	32.34	NA	NA	NA	410.64		0.0	*
1Q23		1/3/2023	NE	32.68	NA	NA	NA	410.30		0.0	*
2Q23		4/4/2023	NE	32.96	NA	NA	NA	410.02		0.0	*
P 4U											
3Q22	442.74	7/6/2022	NE	33.35	NA	NA	NA	409.39	361.59 - 359.59 (81.15 - 83.15)	0.0	*
4Q22		10/18/2022	NE	33.69	NA	NA	NA	409.05		0.0	*
1Q23		1/3/2023	NE	34.09	NA	NA	NA	408.65		0.0	*
2Q23		4/4/2023	NE	34.68	NA	NA	NA	408.06		0.0	*
P 5L											
3Q22	444.01	7/6/2022	NE	33.06	NA	NA	NA	410.95	303.61 - 301.61 (140.40 - 142.40)	0.0	*
4Q22		10/18/2022	NE	33.69	NA	NA	NA	410.32		0.0	*
1Q23		1/3/2023	NE	34.28	NA	NA	NA	409.73		0.0	*
2Q23		4/4/2023	NE	34.71	NA	NA	NA	409.30		0.0	*
P 5U											
3Q22	444.42	7/6/2022	NE	34.61	NA	NA	NA	409.81	313.79 - 311.79 (130.63 - 132.63)	0.0	*
4Q22		10/18/2022	NE	34.94	NA	NA	NA	409.48		0.0	*
1Q23		1/3/2023	NE	35.25	NA	NA	NA	409.17		0.0	*
2Q23		4/4/2023	NE	35.91	NA	NA	NA	408.51		0.0	*
P 6U											
3Q22	443.63	7/6/2022	NE	34.00	NA	NA	NA	409.63	363.13 - 361.13 (80.50 - 82.50)	0.0	*
4Q22		10/18/2022	NE	34.44	NA	NA	NA	409.19		0.3	*
1Q23		1/3/2023	NE	35.02	NA	NA	NA	408.61		0.0	*
2Q23		4/4/2023	NE	35.58	NA	NA	NA	408.05		0.0	*
P 7U											
3Q22	444.08	7/6/2022	NE	34.21	NA	NA	NA	409.87	383.00 - 381.00 (61.08 - 63.08)	0.0	*
4Q22		10/18/2022	NE	34.68	NA	NA	NA	409.40		0.0	*
1Q23		1/3/2023	NE	35.31	NA	NA	NA	408.77		0.0	*
2Q23		4/4/2023	NE	35.86	NA	NA	NA	408.22		0.0	*

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 8U											
3Q22	442.07	7/6/2022	NE	34.55	NA	NA	NA	407.52	382.72 - 380.72 (59.35 - 61.35)	0.0	*
4Q22		10/18/2022	NE	34.82	NA	NA	NA	407.25		0.5	*
1Q23		1/3/2023	NE	35.33	NA	NA	NA	406.74		18.4	*
2Q23		4/4/2023	NE	36.15	NA	NA	NA	405.92		0.0	*
P 9U											
3Q22	445.20	7/6/2022	NE	39.36	NA	NA	NA	405.84	344.61 - 342.61 (100.59 - 102.59)	0.0	*
4Q22		10/18/2022	NE	39.51	NA	NA	NA	405.69		0.0	*
1Q23		1/3/2023	NE	40.14	NA	NA	NA	405.06		0.0	*
2Q23		4/4/2023	NE	40.98	NA	NA	NA	404.22		0.0	*
P 11L											
3Q22	442.76	7/6/2022	NE	35.42	NA	NA	NA	407.34	332.55 - 330.55 (110.21 - 112.21)	0.0	*
4Q22		10/18/2022	NE	35.50	NA	NA	NA	407.26		0.0	*
1Q23		1/3/2023	NE	35.88	NA	NA	NA	406.88		0.0	*
2Q23		4/4/2023	NE	36.76	NA	NA	NA	406.00		0.0	*
P 11U											
3Q22	443.38	7/6/2022	NE	36.02	NA	NA	NA	407.36	343.46 - 341.46 (99.92 - 101.92)	0.0	*
4Q22		10/18/2022	NE	36.14	NA	NA	NA	407.24		0.0	*
1Q23		1/3/2023	NE	36.51	NA	NA	NA	406.87		0.0	*
2Q23		4/4/2023	NE	37.34	NA	NA	NA	406.04		0.0	*
P 14											
3Q22	443.01	7/19/2022	NE	32.09	NA	NA	NA	410.92	395.54 - 385.54 (47.47 - 57.47)	0.0	*
4Q22		10/18/2022	NE	32.41	NA	NA	NA	410.60		0.0	*
1Q23		1/3/2023	NE	32.77	NA	NA	NA	410.24		0.0	*
2Q23		4/4/2023	NE	33.04	NA	NA	NA	409.97		0.0	*
P 15											
3Q22	443.88	7/6/2022	NE	33.98	NA	NA	NA	409.90	398.43 - 388.43 (45.45 - 55.45)	0.0	*
4Q22		10/18/2022	NE	34.36	NA	NA	NA	409.52		0.0	*
1Q23		1/3/2023	NE	34.73	NA	NA	NA	409.15		0.0	*
2Q23		4/4/2023	NE	35.38	NA	NA	NA	408.50		0.0	*
P 16											
3Q22	442.84	7/6/2022	NE	32.86	NA	NA	NA	409.98	397.10 - 387.10 (45.74 - 55.74)	0.0	*
4Q22		10/18/2022	NE	33.33	NA	NA	NA	409.51		0.0	*
1Q23		1/3/2023	NE	33.90	NA	NA	NA	408.94		0.0	*
2Q23		4/4/2023	NE	34.49	NA	NA	NA	408.35		0.0	*
P 43											
3Q22	444.62	7/6/2022	NE	36.81	NA	NA	NA	407.81	381.06 - 371.06 (63.56 - 73.56)	0.0	*
4Q22		10/18/2022	NE	36.99	NA	NA	NA	407.63		0.0	*
1Q23		1/3/2023	NE	37.37	NA	NA	NA	407.25		0.2	*
2Q23		4/4/2023	NE	38.20	NA	NA	NA	406.42		0.0	*
P 53											
3Q22	446.57	7/6/2022	NE	38.27	NA	NA	NA	408.30	406.26 - 381.26 (40.31 - 65.31)	0.0	*
4Q22		10/17/2022	NE	40.91	NA	NA	NA	405.66		0.0	
1Q23		1/3/2023	NE	41.53	NA	NA	NA	405.04		0.0	
2Q23		4/3/2023	NE	42.16	NA	NA	NA	404.41		0.0	
P 54											
3Q22	442.52	7/5/2022	NE	38.19	NA	NA	NA	404.33	404.52 - 379.52 (38.00 - 63.00)	0.0	
4Q22		10/17/2022	NE	38.98	NA	NA	NA	403.54		0.0	
1Q23		1/3/2023	NE	39.87	NA	NA	NA	402.65		0.0	
2Q23		4/3/2023	NE	40.13	NA	NA	NA	402.39		0.0	
P 55R											
3Q22	444.01	7/5/2022	38.60	38.69	405.32	405.41	0.09	405.39	403.58 - 393.58 (40.43 - 50.43)	197.6	*
4Q22		10/17/2022	38.75	38.83	405.18	405.26	0.08	405.24		146.2	*
1Q23		1/3/2023	39.47	39.55	404.46	404.54	0.08	404.52		112.9	*
2Q23		4/3/2023	40.00	40.11	403.90	404.01	0.11	403.99		104.6	*
P 56											
3Q22	446.32	7/5/2022	NE	42.88	NA	NA	NA	403.44	405.50 - 380.50 (40.82 - 65.82)	258.7	
4Q22		10/17/2022	NE	43.39	NA	NA	NA	402.93		123.9	
1Q23		1/3/2023	NE	44.19	NA	NA	NA	402.13		9.0	
2Q23		4/3/2023	NE	44.46	NA	NA	NA	401.86		5.7	

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 57											
3Q22	447.15	7/5/2022	NE	43.53	NA	NA	NA	403.62	402.96 - 392.96 (44.19 - 54.19)	125.8	*
4Q22		10/17/2022	NE	44.21	NA	NA	NA	402.94		113.2	
1Q23		1/3/2023	NE	44.94	NA	NA	NA	402.21		72.7	
2Q23		4/3/2023	NE	45.22	NA	NA	NA	401.93		22.9	
P 58											
3Q22	445.16	7/5/2022	NE	41.33	NA	NA	NA	403.83	404.95 - 379.95 (40.21 - 65.21)	2.0	
4Q22		10/17/2022	42.13	42.18	402.98	403.03	0.05	403.02		0.1	
1Q23		1/3/2023	42.82	42.83	402.33	402.34	0.01	402.34		0.1	
2Q23		4/3/2023	NE	43.06	NA	NA	NA	402.10		3.0	
P 59											
3Q22	447.07	7/5/2022	NE	43.73	NA	NA	NA	403.34	399.16 - 374.16 (47.91 - 72.91)	349.5	*
4Q22		10/17/2022	NE	44.18	NA	NA	NA	402.89		182.8	*
1Q23		1/3/2023	NE	44.96	NA	NA	NA	402.11		132.6	*
2Q23		4/3/2023	NE	45.18	NA	NA	NA	401.89		201.2	*
P 60											
3Q22	446.88	7/5/2022	NE	43.29	NA	NA	NA	403.59	402.23 - 382.23 (44.65 - 64.65)	0.5	*
4Q22		10/17/2022	NE	43.68	NA	NA	NA	403.20		1.4	*
1Q23		1/3/2023	NE	44.46	NA	NA	NA	402.42		5.1	*
2Q23		4/3/2023	NE	44.72	NA	NA	NA	402.16		0.1	
P 61											
3Q22	444.66	7/6/2022	NE	41.94	NA	NA	NA	402.72	398.98 - 373.98 (45.68 - 70.68)	83.7	*
4Q22		10/17/2022	NE	42.18	NA	NA	NA	402.48		113.9	*
1Q23		1/3/2023	NE	43.06	NA	NA	NA	401.60		34.7	*
2Q23		4/3/2023	NE	43.40	NA	NA	NA	401.26		9.9	*
P 62											
3Q22	442.60	7/6/2022	39.53	39.55	403.05	403.07	0.02	403.07	401.13 - 376.13 (41.47 - 66.47)	40.9	*
4Q22		10/17/2022	39.73	39.75	402.85	402.87	0.02	402.87		67.2	*
1Q23		1/3/2023	40.27	41.33	401.27	402.33	1.06	402.12		118.4	*
2Q23		4/3/2023	40.78	41.81	400.79	401.82	1.03	401.61		330.0	*
P 63											
3Q22	446.06	7/8/2022	43.44	43.45	402.61	402.62	0.01	402.62	398.77 - 373.77 (47.29 - 72.29)	146.7	*
4Q22		10/18/2022	43.41	43.42	402.64	402.65	0.01	402.65		38.8	*
1Q23		1/3/2023	43.96	43.98	402.08	402.10	0.02	402.10		28.4	*
2Q23		4/4/2023	44.59	44.61	401.45	401.47	0.02	401.47		78.9	*
P 64											
3Q22	446.78	7/5/2022	44.72	44.77	402.01	402.06	0.05	402.05	399.55 - 374.55 (47.23 - 72.23)	134.2	*
4Q22		10/17/2022	45.03	45.09	401.69	401.75	0.06	401.74		91.6	*
1Q23		1/3/2023	45.09	45.18	401.60	401.69	0.09	401.67		12.8	*
2Q23		4/4/2023	45.75	45.82	400.96	401.03	0.07	401.02		184.3	*
P 65											
3Q22	444.77	7/6/2022	NE	42.12	NA	NA	NA	402.65	397.75 - 372.75 (47.02 - 72.02)	2.9	*
4Q22		10/17/2022	NE	42.08	NA	NA	NA	402.69		10.5	*
1Q23		1/3/2023	NE	42.76	NA	NA	NA	402.01		22.3	*
2Q23		4/3/2023	43.42	43.43	401.34	401.35	0.01	401.35		4.4	*
P 66											
3Q22	437.00	7/7/2022	33.00	33.01	403.99	404.00	0.01	404.00	402.28 - 377.28 (34.72 - 59.72)	42.6	*
4Q22		10/19/2022	33.56	34.58	402.42	403.44	1.02	403.24		103.5	*
1Q23		1/4/2023	34.39	35.91	401.09	402.61	1.52	402.31		159.8	*
2Q23		4/6/2023	34.79	36.21	400.79	402.21	1.42	401.93		58.9	
P 67											
3Q22	444.30	7/7/2022	39.49	39.52	404.78	404.81	0.03	404.80	402.32 - 377.32 (41.98 - 66.98)	0.0	*
4Q22		10/19/2022	40.11	40.12	404.18	404.19	0.01	404.19		0.9	*
1Q23		1/4/2023	41.00	41.01	403.29	403.30	0.01	403.30		1.8	*
2Q23		4/5/2023	41.49	41.50	402.80	402.81	0.01	402.81		0.7	*
P 68											
3Q22	445.38	7/7/2022	41.93	42.05	403.33	403.45	0.12	403.43	401.62 - 376.62 (43.76 - 68.76)	396.7	*
4Q22		10/17/2022	42.24	42.28	403.10	403.14	0.04	403.13		172.8	*
1Q23		1/3/2023	42.97	43.03	402.35	402.41	0.06	402.40		86.2	*
2Q23		4/3/2023	43.25	43.36	402.02	402.13	0.11	402.11		146.2	*

TABLE 1
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WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 69											
3Q22	443.77	7/6/2022	NE	40.79	NA	NA	NA	402.98	402.95 - 377.95 (40.82 - 65.82)	309.0	*
4Q22		10/17/2022	NE	41.03	NA	NA	NA	402.74		0.0	
1Q23		1/3/2023	NE	41.79	NA	NA	NA	401.98		1.9	
2Q23		4/3/2023	NE	42.03	NA	NA	NA	401.74		0.0	
P 70											
3Q22	443.11	7/6/2022	NE	40.20	NA	NA	NA	402.91	398.44 - 373.44 (44.67 - 69.67)	302.8	*
4Q22		10/17/2022	NE	40.39	NA	NA	NA	402.72		188.2	*
1Q23		1/3/2023	NE	41.20	NA	NA	NA	401.91		113.2	*
2Q23		4/3/2023	41.50	41.51	401.60	401.61	0.01	401.61		152.9	*
P 71											
3Q22	445.09	7/6/2022	NE	41.51	NA	NA	NA	403.58	402.48 - 377.48 (42.61 - 67.61)	68.7	*
4Q22		10/17/2022	NE	41.54	NA	NA	NA	403.55		71.9	*
1Q23		1/3/2023	NE	42.25	NA	NA	NA	402.84		34.8	*
2Q23		4/3/2023	NE	42.43	NA	NA	NA	402.66		44.6	*
P 72											
3Q22	444.70	7/6/2022	NE	40.94	NA	NA	NA	403.76	398.93 - 373.93 (45.77 - 70.77)	6.5	*
4Q22		10/17/2022	NE	41.21	NA	NA	NA	403.49		38.5	*
1Q23		1/3/2023	NE	41.71	NA	NA	NA	402.99		11.1	*
2Q23		4/3/2023	NE	42.33	NA	NA	NA	402.37		2.4	*
P 73											
3Q22	444.02	7/6/2022	NE	41.70	NA	NA	NA	402.32	402.42 - 377.42 (41.59 - 66.59)	149.4	
4Q22		10/19/2022	NE	41.63	NA	NA	NA	402.39		150.0	
1Q23		1/3/2023	NE	42.10	NA	NA	NA	401.92		29.4	
2Q23		4/3/2023	NE	42.41	NA	NA	NA	401.61		0.0	
P 74											
3Q22	442.93	7/6/2022	NE	39.87	NA	NA	NA	403.06	399.10 - 374.10 (43.83 - 68.83)	0.3	*
4Q22		10/17/2022	NE	40.19	NA	NA	NA	402.74		1.1	*
1Q23		1/3/2023	NE	40.54	NA	NA	NA	402.39		0.0	*
2Q23		4/3/2023	NE	41.16	NA	NA	NA	401.77		0.0	*
P 75											
3Q22	446.68	7/7/2022	NE	42.99	NA	NA	NA	403.69	403.55 - 378.55 (43.13 - 68.13)	38.5	*
4Q22		10/19/2022	NE	43.62	NA	NA	NA	403.06		0.7	
1Q23		1/4/2023	NE	44.53	NA	NA	NA	402.15		0.5	
2Q23		4/6/2023	NE	44.98	NA	NA	NA	401.70		0.0	
P 82A											
3Q22	434.94	7/6/2022	NE	27.12	NA	NA	NA	407.82	401.73 - 386.73 (33.21 - 48.21)	0.0	*
4Q22		10/18/2022	NE	28.10	NA	NA	NA	406.84		0.0	*
1Q23		1/4/2023	NE	28.92	NA	NA	NA	406.02		0.5	*
2Q23		4/4/2023	NE	28.95	NA	NA	NA	405.99		0.0	*
P 82B											
3Q22	434.68	7/6/2022	NE	26.83	NA	NA	NA	407.85	371.88 - 369.88 (62.80 - 64.80)	0.0	*
4Q22		10/18/2022	NE	27.82	NA	NA	NA	406.86		0.0	*
1Q23		1/4/2023	NE	28.65	NA	NA	NA	406.03		0.0	*
2Q23		4/4/2023	NE	28.66	NA	NA	NA	406.02		0.0	*
P 82C											
3Q22	434.41	7/6/2022	NE	26.53	NA	NA	NA	407.88	351.64 - 349.64 (82.77 - 84.77)	0.0	*
4Q22		10/18/2022	NE	27.55	NA	NA	NA	406.86		0.0	*
1Q23		1/4/2023	NE	28.34	NA	NA	NA	406.07		0.0	*
2Q23		4/4/2023	NE	28.42	NA	NA	NA	405.99		0.0	*
P 82D											
3Q22	435.09	7/6/2022	NE	27.30	NA	NA	NA	407.79	323.55 - 321.55 (111.54 - 113.54)	0.0	*
4Q22		10/18/2022	NE	28.32	NA	NA	NA	406.77			*
1Q23		1/4/2023	NE	29.11	NA	NA	NA	405.98		0.0	*
2Q23		4/4/2023	NE	29.16	NA	NA	NA	405.93		0.0	*
P 83A											
3Q22	445.54	7/5/2022	NE	41.42	NA	NA	NA	404.12	398.14 - 383.14 (47.40 - 62.40)	0.0	*
4Q22		10/18/2022	NE	41.46	NA	NA	NA	404.08		0.0	*
1Q23		1/3/2023	NE	41.92	NA	NA	NA	403.62		0.0	*
2Q23		4/4/2023	NE	42.58	NA	NA	NA	402.96		0.0	*

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WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 83B											
3Q22	445.77	7/5/2022	NE	41.70	NA	NA	NA	404.07	371.97 - 369.97 (73.80 - 75.80)	0.0	*
4Q22		10/18/2022	NE	41.57	NA	NA	NA	404.20		0.0	*
1Q23		1/3/2023	NE	42.17	NA	NA	NA	403.60		0.0	*
2Q23		4/4/2023	NE	42.93	NA	NA	NA	402.84		0.0	*
P 83C											
3Q22	445.95	7/5/2022	NE	41.84	NA	NA	NA	404.11	353.56 - 351.56 (92.39 - 94.39)	0.6	*
4Q22		10/18/2022	NE	41.76	NA	NA	NA	404.19		0.0	*
1Q23		1/3/2023	NE	42.31	NA	NA	NA	403.64		0.0	*
2Q23		4/4/2023	NE	42.97	NA	NA	NA	402.98		0.0	*
P 83D											
3Q22	445.86	7/5/2022	NE	41.80	NA	NA	NA	404.06	312.06 - 310.06 (133.80 - 135.80)	0.0	*
4Q22		10/18/2022	NE	41.83	NA	NA	NA	404.03		0.0	*
1Q23		1/3/2023	NE	42.28	NA	NA	NA	403.58		0.0	*
2Q23		4/4/2023	NE	42.94	NA	NA	NA	402.92		0.0	*
P 84A											
3Q22	446.63	7/7/2022	NE	41.62	NA	NA	NA	405.01	397.71 - 382.71 (48.92 - 63.92)	0.0	*
4Q22		10/18/2022	NE	41.83	NA	NA	NA	404.80		0.0	*
1Q23		1/4/2023	NE	42.57	NA	NA	NA	404.06		0.0	*
2Q23		4/4/2023	NE	43.03	NA	NA	NA	403.60		0.0	*
P 84B											
3Q22	446.35	7/7/2022	NE	41.36	NA	NA	NA	404.99	372.85 - 370.85 (73.50 - 75.50)	0.0	*
4Q22		10/18/2022	NE	41.57	NA	NA	NA	404.78		0.0	*
1Q23		1/4/2023	NE	42.30	NA	NA	NA	404.05		0.0	*
2Q23		4/4/2023	NE	42.76	NA	NA	NA	403.59		0.0	*
P 84C											
3Q22	446.37	7/7/2022	NE	41.36	NA	NA	NA	405.01	352.32 - 350.32 (94.05 - 96.05)	0.0	*
4Q22		10/18/2022	NE	41.58	NA	NA	NA	404.79		0.0	*
1Q23		1/4/2023	NE	42.32	NA	NA	NA	404.05		0.0	*
2Q23		4/4/2023	NE	42.50	NA	NA	NA	403.87		0.0	*
P 84D											
3Q22	446.38	7/7/2022	NE	41.38	NA	NA	NA	405.00	325.55 - 323.55 (120.83 - 122.83)	0.0	*
4Q22		10/18/2022	NE	41.57	NA	NA	NA	404.81		0.0	*
1Q23		1/4/2023	NE	42.31	NA	NA	NA	404.07		0.0	*
2Q23		4/4/2023	NE	43.76	NA	NA	NA	402.62		0.0	*
P 88A											
3Q22	443.27	7/7/2022	NE	33.11	NA	NA	NA	410.16	404.87 - 389.87 (38.40 - 53.40)	0.0	*
4Q22		10/19/2022	NE	33.61	NA	NA	NA	409.66		0.0	*
1Q23		1/4/2023	NE	34.35	NA	NA	NA	408.92		0.0	*
2Q23		4/4/2023	NE	34.82	NA	NA	NA	408.45		0.0	*
P 88B											
3Q22	443.35	7/7/2022	NE	33.16	NA	NA	NA	410.19	371.70 - 369.70 (71.65 - 73.65)	0.0	*
4Q22		10/19/2022	NE	33.66	NA	NA	NA	409.69		0.0	*
1Q23		1/4/2023	NE	34.40	NA	NA	NA	408.95		0.0	*
2Q23		4/4/2023	NE	34.89	NA	NA	NA	408.46		0.0	*
P 88C											
3Q22	443.31	7/7/2022	NE	33.13	NA	NA	NA	410.18	351.01 - 349.01 (92.30 - 94.30)	0.0	*
4Q22		10/19/2022	NE	33.61	NA	NA	NA	409.70		0.0	*
1Q23		1/4/2023	NE	34.34	NA	NA	NA	408.97		0.0	*
2Q23		4/4/2023	NE	34.85	NA	NA	NA	408.46		0.0	*
P 88D											
3Q22	443.38	7/7/2022	NE	33.23	NA	NA	NA	410.15	331.21 - 329.21 (112.17 - 114.17)	0.0	*
4Q22		10/19/2022	NE	33.74	NA	NA	NA	409.64		0.0	*
1Q23		1/4/2023	NE	34.50	NA	NA	NA	408.88		0.0	*
2Q23		4/4/2023	NE	35.95	NA	NA	NA	407.43		0.0	*
P 89B											
3Q22	447.64	7/6/2022	NE	42.29	NA	NA	NA	405.35	370.28 - 368.28 (77.36 - 79.36)	0.0	*
4Q22		10/18/2022	NE	42.33	NA	NA	NA	405.31		0.0	*
1Q23		1/3/2023	NE	42.76	NA	NA	NA	404.88		0.0	*
2Q23		4/4/2023	NE	43.68	NA	NA	NA	403.96		0.0	*

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 89C											
3Q22	447.96	7/6/2022	NE	42.72	NA	NA	NA	405.24	351.56 - 349.56 (96.40 - 98.40)	0.0	*
4Q22		10/18/2022	NE	42.68	NA	NA	NA	405.28		0.0	*
1Q23		1/3/2023	NE	43.12	NA	NA	NA	404.84		0.0	*
2Q23		4/4/2023	NE	44.05	NA	NA	NA	403.91		0.0	*
P 89D											
3Q22	447.83	7/6/2022	NE	42.84	NA	NA	NA	404.99	309.33 - 307.33 (138.50 - 140.50)	0.0	*
4Q22		10/18/2022	NE	42.78	NA	NA	NA	405.05		0.0	*
1Q23		1/3/2023	NE	43.22	NA	NA	NA	404.61		0.0	*
2Q23		4/4/2023	NE	44.13	NA	NA	NA	403.70		0.0	*
P 91A											
3Q22	447.43	7/5/2022	NE	46.26	NA	NA	NA	401.17	395.92 - 380.92 (51.51 - 66.51)	6.6	*
4Q22		10/18/2022	NE	45.72	NA	NA	NA	401.71		16.3	*
1Q23		1/3/2023	NE	46.31	NA	NA	NA	401.12		37.4	*
2Q23		4/3/2023	46.84	46.85	400.58	400.59	0.01	400.59		9.7	*
P 91B											
3Q22	447.47	7/5/2022	NE	46.35	NA	NA	NA	401.12	372.78 - 370.78 (74.69 - 76.69)	1.8	*
4Q22		10/18/2022	NE	45.77	NA	NA	NA	401.70		10.0	*
1Q23		1/3/2023	NE	46.32	NA	NA	NA	401.15		0.3	*
2Q23		4/3/2023	NE	46.91	NA	NA	NA	400.56		1.2	*
P 91C											
3Q22	447.27	7/5/2022	NE	46.11	NA	NA	NA	401.16	352.54 - 350.54 (94.73 - 96.73)	0.0	*
4Q22		10/18/2022	NE	45.54	NA	NA	NA	401.73		0.0	*
1Q23		1/3/2023	NE	46.12	NA	NA	NA	401.15		0.0	*
2Q23		4/3/2023	NE	46.68	NA	NA	NA	400.59		0.2	*
P 91D											
3Q22	447.26	7/5/2022	NE	46.12	NA	NA	NA	401.14	278.94 - 276.94 (168.32 - 170.32)	0.0	*
4Q22		10/18/2022	NE	45.56	NA	NA	NA	401.70		0.0	*
1Q23		1/3/2023	NE	46.15	NA	NA	NA	401.11		0.0	*
2Q23		4/3/2023	NE	46.69	NA	NA	NA	400.57		0.1	*
P 92A											
3Q22	446.39	7/5/2022	42.21	42.22	404.17	404.18	0.01	404.18	398.82 - 383.82 (47.57 - 62.57)	72.0	*
4Q22		10/17/2022	44.04	44.20	402.19	402.35	0.16	402.32		64.1	*
1Q23		1/3/2023	44.75	44.76	401.63	401.64	0.01	401.64		124.6	*
2Q23		4/3/2023	NE	45.44	NA	NA	NA	400.95		108.8	*
P 92B											
3Q22	446.33	7/5/2022	NE	44.11	NA	NA	NA	402.22	371.92 - 369.92 (74.41 - 76.41)	0.0	*
4Q22		10/17/2022	NE	43.98	NA	NA	NA	402.35		0.0	*
1Q23		1/3/2023	NE	44.47	NA	NA	NA	401.86		0.9	*
2Q23		4/3/2023	NE	45.37	NA	NA	NA	400.96		0.4	*
P 92C											
3Q22	446.34	7/5/2022	NE	42.88	NA	NA	NA	403.46	353.38 - 348.38 (92.96 - 97.96)	0.6	*
4Q22		10/17/2022	NE	43.97	NA	NA	NA	402.37		0.0	*
1Q23		1/3/2023	NE	44.70	NA	NA	NA	401.64		1.3	*
2Q23		4/3/2023	NE	45.38	NA	NA	NA	400.96		2.0	*
P 92D											
3Q22	446.15	7/5/2022	NE	44.03	NA	NA	NA	402.12	305.15 - 303.15 (141.00 - 143.00)	0.0	*
4Q22		10/17/2022	NE	43.84	NA	NA	NA	402.31		0.0	*
1Q23		1/3/2023	NE	44.58	NA	NA	NA	401.57		0.0	*
2Q23		4/3/2023	NE	45.26	NA	NA	NA	400.89		0.6	*
P 93A											
3Q22	445.37	7/5/2022	NE	41.68	NA	NA	NA	403.69	402.30 - 392.30 (43.07 - 53.07)	0.0	*
4Q22		10/17/2022	NE	42.40	NA	NA	NA	402.97		0.0	*
1Q23		1/3/2023	NE	43.13	NA	NA	NA	402.24		0.0	
2Q23		4/3/2023	NE	43.38	NA	NA	NA	401.99		0.0	
P 93B											
3Q22	446.70	7/5/2022	NE	43.05	NA	NA	NA	403.65	371.92 - 369.92 (74.78 - 76.78)	0.0	*
4Q22		10/17/2022	NE	43.75	NA	NA	NA	402.95		0.1	*
1Q23		1/3/2023	NE	44.47	NA	NA	NA	402.23		0.0	*
2Q23		4/3/2023	NE	44.74	NA	NA	NA	401.96		0.0	*

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 93C											
3Q22	446.55	7/5/2022	NE	42.88	NA	NA	NA	403.67	353.67 - 348.67 (92.88 - 97.88)	0.0	*
4Q22		10/17/2022	NE	43.58	NA	NA	NA	402.97		0.0	*
1Q23		1/3/2023	NE	44.31	NA	NA	NA	402.24		0.0	*
2Q23		4/3/2023	NE	44.57	NA	NA	NA	401.98		0.0	*
P 93D											
3Q22	446.97	7/5/2022	NE	43.23	NA	NA	NA	403.74	321.31 - 319.31 (125.66 - 127.66)	0.0	*
4Q22		10/17/2022	NE	43.93	NA	NA	NA	403.04		0.1	*
1Q23		1/3/2023	NE	44.67	NA	NA	NA	402.30		0.0	*
2Q23		4/3/2023	NE	44.92	NA	NA	NA	402.05		0.0	*
P 94											
3Q22	445.04	7/5/2022	NE	38.02	NA	NA	NA	407.02	398.80 - 383.80 (46.24 - 61.24)	0.0	*
4Q22		10/18/2022	NE	38.35	NA	NA	NA	406.69		0.0	*
1Q23		1/3/2023	NE	38.95	NA	NA	NA	406.09		0.0	*
2Q23		4/4/2023	NE	39.82	NA	NA	NA	405.22		0.0	*
P 95											
3Q22	443.95	7/7/2022	NE	31.24	NA	NA	NA	412.71	407.43 - 392.43 (36.52 - 51.52)	0.0	*
4Q22		10/19/2022	NE	31.61	NA	NA	NA	412.34		0.0	*
1Q23		1/4/2023	NE	32.22	NA	NA	NA	411.73		0.0	*
2Q23		4/4/2023	NE	32.81	NA	NA	NA	411.14		0.0	*
P 102											
3Q22	445.14	7/7/2022	NE	35.20	NA	NA	NA	409.94	402.39 - 382.39 (42.75 - 62.75)	2.5	*
4Q22		10/19/2022	NE	35.29	NA	NA	NA	409.85		10.0	*
1Q23		1/4/2023	NE	35.81	NA	NA	NA	409.33		2.4	*
2Q23		4/4/2023	NE	36.41	NA	NA	NA	408.73		3.5	*
P 114R											
3Q22	429.48	7/6/2022	NE	24.25	NA	NA	NA	405.23	406.47 - 396.47 (23.01 - 33.01)	6.2	
4Q22		10/18/2022	NE	25.94	NA	NA	NA	403.54		0.0	
1Q23		1/4/2023	NE	27.07	NA	NA	NA	402.41		0.0	
2Q23		4/4/2023	NE	26.72	NA	NA	NA	402.76		21.8	
P 115											
3Q22	433.54	7/6/2022	NE	28.16	NA	NA	NA	405.38	401.24 - 381.24 (32.30 - 52.30)	0.0	*
4Q22		10/18/2022	NE	29.96	NA	NA	NA	403.58		0.0	*
1Q23		1/4/2023	NE	31.15	NA	NA	NA	402.39		0.0	*
2Q23		4/4/2023	NE	30.65	NA	NA	NA	402.89		0.1	*
P 116											
3Q22	436.79	7/6/2022	NE	31.51	NA	NA	NA	405.28	399.35 - 379.35 (37.44 - 57.44)	0.0	*
4Q22		10/18/2022	NE	33.43	NA	NA	NA	403.36		0.0	*
1Q23		1/4/2023	NE	34.63	NA	NA	NA	402.16		0.0	*
2Q23		4/4/2023	NE	34.05	NA	NA	NA	402.74		0.0	*
P 117											
3Q22	432.87	7/6/2022	NE	27.67	NA	NA	NA	405.20	399.94 - 379.94 (32.93 - 52.93)	0.0	*
4Q22		10/18/2022	NE	29.68	NA	NA	NA	403.19		0.0	*
1Q23		1/4/2023	NE	30.86	NA	NA	NA	402.01		0.0	*
2Q23		4/4/2023	NE	30.25	NA	NA	NA	402.62		0.0	*
P 118											
3Q22	431.48	7/6/2022	NE	26.39	NA	NA	NA	405.09	400.36 - 384.43 (31.12 - 47.05)	0.0	*
4Q22		10/18/2022	NE	28.73	NA	NA	NA	402.75		0.0	*
1Q23		1/4/2023	NE	29.95	NA	NA	NA	401.53		0.1	*
2Q23		4/4/2023	NE	29.07	NA	NA	NA	402.41		0.0	*
P 119											
3Q22	432.11	7/6/2022	NE	26.94	NA	NA	NA	405.17	401.44 - 385.51 (30.67 - 46.60)	0.0	*
4Q22		10/18/2022	NE	28.20	NA	NA	NA	403.91		0.0	*
1Q23		1/4/2023	NE	29.24	NA	NA	NA	402.87		0.0	*
2Q23		4/4/2023	NE	29.05	NA	NA	NA	403.06		0.0	*
P 120											
3Q22	433.00	7/6/2022	NE	27.09	NA	NA	NA	405.91	401.62 - 385.69 (31.38 - 47.31)		*
4Q22		10/18/2022	NE	28.63	NA	NA	NA	404.37		0.0	*
1Q23		1/4/2023	NE	29.72	NA	NA	NA	403.28		0.0	*
2Q23		4/4/2023	NE	29.38	NA	NA	NA	403.62		0.0	*

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QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

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P 129											
3Q22	432.66	7/6/2022	NE	28.23	NA	NA	NA	404.43	400.69 - 384.76 (31.97 - 47.90)	0.0	*
4Q22		10/18/2022	NE	31.28	NA	NA	NA	401.38		0.0	*
1Q23		1/4/2023	NE	32.46	NA	NA	NA	400.20		17.2	
2Q23		4/4/2023	NE	30.91	NA	NA	NA	401.75		0.0	*
ROST 3 MW											
3Q22	442.52	7/5/2022	NE	38.43	NA	NA	NA	404.09	404.71 - 394.71 (37.81 - 47.81)	75.6	
4Q22		10/17/2022	NE	38.93	NA	NA	NA	403.59		8.8	
1Q23		1/3/2023	NE	39.77	NA	NA	NA	402.75		361.7	
2Q23		4/3/2023	NE	40.11	NA	NA	NA	402.41		0.0	
ROST 4 PZ											
3Q22	442.15	7/5/2022	NE	37.93	NA	NA	NA	404.22	407.22 - 397.22 (34.93 - 44.93)	0.0	
4Q22		10/17/2022	NE	37.93	NA	NA	NA	404.22		0.0	
1Q23		1/3/2023	NE	38.58	NA	NA	NA	403.57		0.3	
2Q23		4/3/2023	NE	39.30	NA	NA	NA	402.85		0.0	
ROST 4 PZ(A)											
3Q22	442.15	7/5/2022	NE	36.96	NA	NA	NA	405.19	407.38 - 397.38 (34.77 - 44.77)	0.0	
4Q22		10/17/2022	NE	36.75	NA	NA	NA	405.40		0.0	
1Q23		1/3/2023	NE	37.89	NA	NA	NA	404.26		0.0	
2Q23		4/3/2023	NE	38.75	NA	NA	NA	403.40		0.0	
ROST 4 PZ(B)											
3Q22	442.40	7/5/2022	NE	37.89	NA	NA	NA	404.51	407.35 - 397.35 (35.05 - 45.05)	0.0	
4Q22		10/17/2022	NE	37.75	NA	NA	NA	404.65		0.0	
1Q23		1/3/2023	NE	38.54	NA	NA	NA	403.86		0.0	
2Q23		4/3/2023	NE	39.34	NA	NA	NA	403.06		0.0	
ROST 4 PZ(C)											
3Q22	442.97	7/5/2022	NE	38.81	NA	NA	NA	404.16	408.02 - 398.02 (34.95 - 44.95)	0.0	
4Q22		10/18/2022	NE	39.03	NA	NA	NA	403.94		0.0	
1Q23		1/3/2023	NE	39.65	NA	NA	NA	403.32		0.0	
2Q23		4/3/2023	NE	40.29	NA	NA	NA	402.68		0.0	
ROST 4 PZ(D)											
3Q22	442.92	7/5/2022	NE	38.65	NA	NA	NA	404.27	407.95 - 397.95 (34.97 - 44.97)	0.0	
4Q22		10/17/2022	NE	38.77	NA	NA	NA	404.15		0.0	
1Q23		1/3/2023	NE	39.44	NA	NA	NA	403.48		0.1	
2Q23		4/3/2023	NE	40.07	NA	NA	NA	402.85		0.0	
ROST 4 PZ(E)											
3Q22	441.98	7/5/2022	NE	37.82	NA	NA	NA	404.16	407.23 - 397.23 (34.75 - 44.75)	0.0	
4Q22		10/17/2022	NE	37.95	NA	NA	NA	404.03		0.0	
1Q23		1/3/2023	NE	38.51	NA	NA	NA	403.47		0.0	
2Q23		4/3/2023	NE	39.14	NA	NA	NA	402.84		0.0	
ROST 4 PZ(F)											
3Q22	442.12	7/5/2022	NE	38.09	NA	NA	NA	404.03	407.59 - 397.59 (34.53 - 44.53)	0.0	
4Q22		10/17/2022	NE	38.09	NA	NA	NA	404.03		0.0	
1Q23		1/3/2023	NE	38.73	NA	NA	NA	403.39		0.0	
2Q23		4/3/2023	NE	39.23	NA	NA	NA	402.89		0.0	
ROST 4 PZ(G)											
3Q22	442.20	7/5/2022	NE	38.46	NA	NA	NA	403.74	407.92 - 397.92 (34.28 - 44.28)	0.0	
4Q22		10/17/2022	NE	38.68	NA	NA	NA	403.52		0.0	
1Q23		1/3/2023	NE	39.74	NA	NA	NA	402.46		0.2	
2Q23		4/3/2023	NE	40.00	NA	NA	NA	402.20		0.0	
S 1											
3Q22	444.06	7/6/2022	41.02	41.06	403.00	403.04	0.04	403.03	Unknown	156.6	
4Q22		10/17/2022	41.23	41.30	402.76	402.83	0.07	402.82		123.4	
1Q23		1/3/2023	41.81	41.96	402.10	402.25	0.15	402.22		138.6	
2Q23		4/3/2023	42.34	42.36	401.70	401.72	0.02	401.72		172.6	
T 1											
3Q22	445.61	7/5/2022	NE	41.22	NA	NA	NA	404.39	398.61 - 388.61 (47.00 - 57.00)	0.3	
4Q22		10/17/2022	NE	41.58	NA	NA	NA	404.03		0.1	
1Q23		1/3/2023	NE	42.33	NA	NA	NA	403.28		0.0	
2Q23		4/3/2023	NE	42.80	NA	NA	NA	402.81		0.0	

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T 2											
3Q22	443.40	7/5/2022	NE	39.63	NA	NA	NA	403.77	392.90 - 372.75 (50.49 - 70.64)	0.0	
4Q22		10/17/2022	NE	39.73	NA	NA	NA	403.67		0.1	
1Q23		1/3/2023	NE	40.40	NA	NA	NA	403.00		0.0	
2Q23		4/3/2023	NE	40.91	NA	NA	NA	402.49		0.2	
T 3											
3Q22	449.21	7/5/2022	NE	46.76	NA	NA	NA	402.45	403.99 - 388.99 (45.22 - 60.22)	0.0	
4Q22		10/18/2022	NE	46.50	NA	NA	NA	402.71		0.1	
1Q23		1/3/2023	NE	47.13	NA	NA	NA	402.08		0.0	
2Q23		4/4/2023	NE	47.74	NA	NA	NA	401.47		0.0	
T 4											
3Q22	446.82	7/5/2022	NE	46.23	NA	NA	NA	400.59	396.80 - 381.80 (50.02 - 65.02)	0.0	
4Q22		10/18/2022	NE	45.82	NA	NA	NA	401.00		0.1	
1Q23		1/3/2023	NE	46.45	NA	NA	NA	400.37		0.0	
2Q23		4/4/2023	NE	46.88	NA	NA	NA	399.94		0.0	
T 5											
3Q22	443.66	7/6/2022	NE	40.22	NA	NA	NA	403.44	395.33 - 378.78 (48.33 - 64.88)	16.8	
4Q22		10/17/2022	NE	40.32	NA	NA	NA	403.34		0.0	
1Q23		1/3/2023	NE	40.92	NA	NA	NA	402.74		6.0	
2Q23		4/3/2023	NE	41.65	NA	NA	NA	402.01		0.5	
T 6											
3Q22	446.78	7/5/2022	NE	43.23	NA	NA	NA	403.55	394.27 - 380.02 (52.51 - 66.76)	0.0	
4Q22		10/17/2022	NE	43.87	NA	NA	NA	402.91		1.5	
1Q23		1/3/2023	NE	44.59	NA	NA	NA	402.19		0.1	
2Q23		4/3/2023	NE	44.90	NA	NA	NA	401.88		0.0	
T 7											
3Q22	444.26	7/7/2022	NE	39.44	NA	NA	NA	404.82	395.54 - 380.54 (48.72 - 63.72)	0.0	
4Q22		10/19/2022	NE	40.11	NA	NA	NA	404.15		2.3	
1Q23		1/4/2023	NE	41.06	NA	NA	NA	403.20		16.5	
2Q23		4/5/2023	41.47	41.49	402.77	402.79	0.02	402.79		0.8	
T 12											
3Q22	444.99	7/5/2022	NE	41.64	NA	NA	NA	403.35	398.16 - 372.16 (46.83 - 72.83)	5.7	
4Q22		10/17/2022	NE	42.03	NA	NA	NA	402.96		0.2	
1Q23		1/3/2023	NE	42.75	NA	NA	NA	402.24		3.9	
2Q23		4/3/2023	NE	42.93	NA	NA	NA	402.06		0.0	
T 13											
3Q22	443.76	7/5/2022	NE	39.10	NA	NA	NA	404.66	399.95 - 373.95 (43.81 - 69.81)	0.0	
4Q22		10/17/2022	NE	39.51	NA	NA	NA	404.25		0.0	
1Q23		1/3/2023	NE	40.20	NA	NA	NA	403.56		0.0	
2Q23		4/3/2023	NE	40.76	NA	NA	NA	403.00		0.0	
T 15											
3Q22	445.35	7/5/2022	NE	41.55	NA	NA	NA	403.80	396.95 - 370.95 (48.40 - 74.40)	0.0	
4Q22		10/18/2022	NE	41.64	NA	NA	NA	403.71		0.1	
1Q23		1/3/2023	NE	42.13	NA	NA	NA	403.22		0.0	
2Q23		4/3/2023	NE	42.72	NA	NA	NA	402.63		0.1	
T 17											
3Q22	446.19	7/5/2022	NE	41.28	NA	NA	NA	404.91	401.72 - 375.72 (44.47 - 70.47)	0.0	
4Q22		10/18/2022	NE	41.47	NA	NA	NA	404.72		0.4	
1Q23		1/3/2023	NE	41.88	NA	NA	NA	404.31		0.0	
2Q23		4/4/2023	NE	42.84	NA	NA	NA	403.35		0.0	
T 19											
3Q22	446.99	7/5/2022	NE	46.22	NA	NA	NA	400.77	396.22 - 370.22 (50.77 - 76.77)	33.8	
4Q22		10/18/2022	NE	45.82	NA	NA	NA	401.17		8.4	
1Q23		1/3/2023	NE	46.50	NA	NA	NA	400.49		11.7	
2Q23		4/4/2023	NE	47.02	NA	NA	NA	399.97		5.0	
T 21											
3Q22	444.22	7/7/2022	NE	31.56	NA	NA	NA	412.66	412.26 - 386.26 (31.96 - 57.96)	0.0	
4Q22		10/19/2022	NE	31.90	NA	NA	NA	412.32		0.0	
1Q23		1/4/2023	NE	32.57	NA	NA	NA	411.65		0.0	
2Q23		4/4/2023	NE	33.50	NA	NA	NA	410.72		0.0	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
T 22											
3Q22	442.37	7/7/2022	NE	32.87	NA	NA	NA	409.50	410.82 - 385.12 (31.55 - 57.25)	0.0	
4Q22		10/19/2022	NE	33.62	NA	NA	NA	408.75		0.0	
1Q23		1/4/2023	NE	34.43	NA	NA	NA	407.94		0.0	
2Q23		4/4/2023	NE	35.36	NA	NA	NA	407.01		0.0	
T 23											
3Q22	432.90	7/7/2022	NE	25.51	NA	NA	NA	407.39	405.67 - 379.67 (27.23 - 53.23)	0.0	
4Q22		10/18/2022	NE	26.57	NA	NA	NA	406.33		0.0	
1Q23		1/4/2023	NE	27.41	NA	NA	NA	405.49		0.0	
2Q23		4/4/2023	NE	28.37	NA	NA	NA	404.53		0.0	
T 24											
3Q22	444.00	7/6/2022	NE	40.93	NA	NA	NA	403.07	402.50 - 376.85 (41.50 - 67.15)	16.4	
4Q22		10/17/2022	NE	41.13	NA	NA	NA	402.87		0.2	
1Q23		1/3/2023	NE	41.90	NA	NA	NA	402.10		2.1	
2Q23		4/3/2023	42.25	42.26	401.74	401.75	0.01	401.75		0.4	
T 28											
3Q22	444.56	7/5/2022	NE	40.64	NA	NA	NA	403.92	Unknown	0.0	
4Q22		10/18/2022	NE	40.66	NA	NA	NA	403.90		0.1	
1Q23		1/3/2023	NE	41.11	NA	NA	NA	403.45		0.0	
2Q23		4/4/2023	NE	41.81	NA	NA	NA	402.75		0.0	
T 37											
3Q22	447.44	7/6/2022	NE	42.24	NA	NA	NA	405.20	398.58 - 378.58 (48.85 - 68.85)	0.0	
4Q22		10/18/2022	NE	42.20	NA	NA	NA	405.24		0.0	
1Q23		1/3/2023	NE	42.60	NA	NA	NA	404.84		0.0	
2Q23		4/4/2023	NE	43.52	NA	NA	NA	403.92		0.0	
T 38											
3Q22	445.89	7/6/2022	NE	38.67	NA	NA	NA	407.22	396.75 - 376.75 (49.14 - 69.14)	0.0	
4Q22		10/18/2022	NE	38.49	NA	NA	NA	407.40		0.1	
1Q23		1/3/2023	NE	38.83	NA	NA	NA	407.06		0.0	
2Q23		4/4/2023	NE	39.71	NA	NA	NA	406.18		0.0	
T 62											
3Q22	432.16	7/6/2022	NE	26.57	NA	NA	NA	405.59	412.45 - 382.45 (19.71 - 49.71)	0.0	
4Q22		10/18/2022	NE	28.19	NA	NA	NA	403.97		0.0	
1Q23		1/4/2023	NE	29.35	NA	NA	NA	402.81		0.0	
2Q23		4/4/2023	NE	28.73	NA	NA	NA	403.43		0.5	
T 63											
3Q22	431.55	7/6/2022	NE	26.02	NA	NA	NA	405.53	411.57 - 381.57 (19.98 - 49.98)	0.0	
4Q22		10/18/2022	NE	27.88	NA	NA	NA	403.67		0.0	
1Q23		1/4/2023	NE	29.07	NA	NA	NA	402.48		0.0	
2Q23		4/4/2023	NE	28.27	NA	NA	NA	403.28		0.5	
T 64											
3Q22	429.10	7/6/2022	NE	23.67	NA	NA	NA	405.43	409.29 - 379.29 (19.81 - 49.81)	0.0	
4Q22		10/18/2022	NE	26.00	NA	NA	NA	403.10		0.0	
1Q23		1/4/2023	NE	27.20	NA	NA	NA	401.90		0.0	
2Q23		4/4/2023	NE	26.27	NA	NA	NA	402.83		0.6	

NOTES:

1) Elevations presented in this table are relative to the 1988 NAVD datum.

2) The corrected water level elevations presented in this table were corrected by a specific grav ty of 0.80 for the wells in which LNAPL was identified.

3) PID values measured with a 10.6 electron volt (eV) lamp photoionization detector.

4) btoc Below Top of Casing; ppm parts per mil ion; NA Not App icable; NE Not Encountered; NM Not Measured

5) * Indicates that the LNAPL and/or water level is above the top of the screened zone of the well.

6) Table includes comprehensive groundwater monitoring well gauging data for the last 4 quarters from the combined Vi lage of Roxana Interim Groundwater Monitoring Program and the WRB Refining LP Wood River Refinery Program.

7) The screened interval for certain monitoring we ls was adjusted based on an evaluation of the results of annual bottom depth gauging conducted in the first quarter of each year.

8) Top of casing and screened interval for the groundwater monitoring wells in the Roxana Interim Groundwater Monitoring Program and the WRR Program were adjusted based on surveying conducted in 2Q19, in accordance with Perm t Condition IV.J.9, which requires we ls be surveyed every five (5) years.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-01							
3Q22	6.98	21.61	1.042	30 53	0.51	20.50	
4Q22	6.90	18.15	0.966	4.54	0.63	45.45	
1Q23	6.99	15.65	0.901	10 09	0.88	159.41	
2Q23	6.83	15.76	0.878	16 85	0.67	65.91	
MW-02							
3Q22	7.13	21.56	0.968	2.87	0.40	-140 56	
4Q22	7.16	18.23	0.824	6.14	0.64	-50.56	
1Q23	7.32	13.77	0.840	13.19	0.83	67.69	
2Q23	6.90	16.32	0.903	9.86	0.88	-97.71	
MW-03							
3Q22	6.68	20.37	1.461	3.56	0.34	-137.78	
4Q22	6.61	18.73	1.293	0.00	0.53	-72.66	
1Q23	6.80	17.70	1.595	5.82	0.55	-104 07	
2Q23	6.98	15.92	1.444	1.92	0.76	-133 81	
MW-04							
3Q22	6.72	20.57	1.172	22.16	0.34	-103 54	
4Q22	6.86	18.56	1.116	2.82	0.49	-38.50	
1Q23	6.81	15.87	1.058	7.84	0.60	-78.06	
2Q23	7.00	15.01	1.015	28 87	0.66	-114 56	
MW-05							
3Q22	6.70	20.59	1.126	9.98	1.01	-100 89	
4Q22	6.65	17.68	0.984	6.49	0.69	-72.15	
1Q23	6.72	16.17	1.237	3.28	0.63	-83.91	
2Q23	6.75	18.24	1.176	4.04	0.53	-114 51	
MW-06A							
3Q22	6.80	22.51	0.956	32 29	1.02	-72.90	
4Q22	6.78	20.87	1.066	40 67	0.35	-97.21	
1Q23	6.74	18.82	1.355	27.44	0.51	-81.76	
2Q23	6.81	19.50	0.982	38 99	0.59	-71.28	
MW-06B							
3Q22	7.14	21.72	0.763	8.30	0.91	-96.07	
4Q22	7.04	20.33	0.773	5.61	0.65	-76.49	
1Q23	7.09	18.41	0.841	4.23	0.76	-80.97	
2Q23	7.30	19.04	0.745	0.53	0.52	-105 08	
MW-06C							
3Q22	7.12	21.07	0.766	1.92	0.88	-111 88	
4Q22	7.01	19.10	0.779	0.00	0.59	-86.89	
1Q23	7.05	17.05	0.910	4.74	0.72	-88.42	
2Q23	7.24	17.85	0.755	0.00	0.64	-116.11	
MW-06D							
3Q22	7.00	20.22	0.993	33.11	0.84	-98.35	
4Q22	6.91	18.55	0.952	14 02	0.57	-60.22	
1Q23	7.04	18.12	1.424	34.42	0.68	-105 52	
2Q23	7.08	17.18	1.279	2.21	0.61	-113 39	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-07							
3Q22	6.78	22.51	1.296	7.48	0.32	-75.06	
4Q22	6.65	18.66	1.299	0.00	0.51	-29.52	
1Q23	6.73	17.29	1.130	2.66	0.59	-57.01	
2Q23	6.80	16.25	1.158	3.52	0.49	-75.94	
MW-08							
3Q22	6.86	22.25	1.393	4.69	0.32	-145 30	
4Q22	6.74	18.47	1.433	15.48	0.51	-78.14	
1Q23	6.84	15.98	1.230	46.70	0.63	-132.72	
MW-09							
3Q22	6.58	20.08	1.102	6.32	0.44	-61.82	
4Q22	6.77	17.95	1.031	0.00	0.63	-49.17	
1Q23	6.86	14.64	0.936	22 21	0.71	-67.21	
2Q23	7.00	16.16	0.981	3.88	0.64	-73.85	
MW-10							
3Q22	6.94	21.40	2.106	31.71	0.45	-138 37	
4Q22	6.84	18.88	1.875	35 09	0.48	-23.18	
1Q23	6.98	15.18	1.445	41.18	0.65	-84.20	
2Q23	6.97	16.02	1.445	35.73	0.61	-110.43	
MW-11							
3Q22	6.70	20.08	1.615	13 33	0.41	-91.02	
4Q22	6.54	16.18	1.328	13 53	0.66	-23.09	
1Q23	6.62	13.71	1.390	20 98	0.90	27.61	
2Q23	6.78	15.47	1.331	21 00	0.64	-42.83	
MW-12							
3Q22	7.03	21.12	0.937	8.62	0.45	74.63	
4Q22	6.57	17.18	0.865	1.29	0.68	115 08	
1Q23	6.83	16.76	1.041	2.92	0.76	69.22	
2Q23	6.97	16.44	0.914	8.23	0.59	44.80	
MW-13							
3Q22	6.59	23.85	1.009	19 63	0.14	-125.76	
4Q22	6.47	20.99	1.430	19.40	0.50	-92.33	
1Q23	6.59	18.95	1.080	28 30	0.49	-41.18	
2Q23	6.77	20.10	1.200	44 06	0.41	-115.74	
MW-14							
3Q22	6.67	20.80	1.197	36 29	0.66	-84.68	
4Q22	6.71	19.39	1.121	22.72	0.58	-56.63	
1Q23	6.70	17.87	1.186	14 20	0.62	-25.50	
2Q23	6.75	17.60	1.057	4.59	0.55	-85.75	
MW-16							
3Q22	6.73	21.08	0.873	25 62	0.63	-14.60	
4Q22	6.72	17.28	0.861	19 96	0.66	43.10	
1Q23	6.70	15.80	0.847	12.13	0.94	40.20	
2Q23	6.80	18.07	0.812	19 61	0.65	-75.03	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-22							
3Q22	6.99	22.75	1.064	9.92	0.45	-104 09	
4Q22	6.77	18.11	0.938	12.41	0.64	-21.70	
1Q23	6.85	17.66	1.309	6.63	0.82	70.00	
2Q23	6.97	17.47	1.211	7.68	0.83	-125 00	
MW-23							
3Q22	6.53	21.70	1.057	11 65	0.36	-99.86	
4Q22	6.47	18.42	1.073	39 89	0.59	-39.10	
1Q23	6.50	16.82	1.225	23 58	0.61	-43.53	
2Q23	6.84	18.62	0.928	45 52	0.38	-108 87	
MW-24							
3Q22	6.62	19.35	1.618	4.61	0.38	140 04	
4Q22	6.93	18.29	1.606	9.66	0.99	39.40	
1Q23	6.81	15.63	1.506	35.70	0.82	64.21	
2Q23	6.92	19.09	1.748	21 29	0.69	7 27	
MW-25							
3Q22	6.91	22.57	1.087	13 94	0.38	-129 92	
4Q22	6.88	19.14	1.040	11 01	0.56	-63.06	
1Q23	6.95	17.62	0.898	38.49	0.39	-120 56	
2Q23	7.01	17.03	0.878	41 94	0.36	-122 25	
MW-26							
3Q22	6.58	20.50	1.311	1.06	0.93	127 26	
4Q22	6.73	18.53	1.217	7.84	0.72	23.86	
1Q23	6.68	15.75	1.417	11 85	0.68	164.45	
2Q23	6.80	18.21	1.236	10 65	0.61	72.76	
MW-27							
3Q22	6.77	19.72	0.857	11.48	1.72	38.15	
4Q22	6.78	17.67	0.784	46 38	1.07	53.80	
1Q23	6.81	16.50	0.807	14 57	0.68	65.12	
2Q23	6.99	16.54	0.750	30.41	0.69	43.04	
MW-28							
3Q22	6.73	21.17	1.124	29.48	0.34	-53.55	
4Q22	6.56	17.88	1.015	32.16	0.65	28.49	
1Q23	6.78	16.80	1.164	25 29	0.72	4 24	
2Q23	6.75	19.14	1.484	8.15	0.77	-49.26	
P-114R							
3Q22	6.51	25.54	0.893	39 65	0.40	-142.13	
4Q22	6.67	22.20	0.989	25 58	0.39	-99.55	
1Q23	6.74	21.34	0.865	36.19	0.39	-93.29	
2Q23	7.13	21.60	0.854	48 63	0.32	-141 89	
P-54							
3Q22	6.75	21.62	1.067	9.35	2.31	81.89	
4Q22	6.60	16.71	1.022	12 21	5.08	151 35	
1Q23	6.76	15.82	1.268	11.44	4.51	150 86	
2Q23	6.94	19.50	1.304	3.45	2.09	-7 27	

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-55R							
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-56							
3Q22	7.12	23.09	1.053	9.59	0.28	-129 54	
4Q22	7.20	20.80	1.056	1.71	0.66	-56.35	
1Q23	7.22	18.01	1.097	6.91	0.61	-22.33	
2Q23	6.99	20.75	0.990	9.46	0.27	-36.37	
P-57							
3Q22	6.85	22.10	1.104	0.47	0.43	-134 50	
4Q22	6.96	19.30	0.936	1.02	0.31	-127.10	
1Q23	6.84	18.83	1.149	0.71	0.62	16.83	
2Q23	6.38	20.03	0.976	0.00	0.18	-20.25	
P-58							
3Q22	6.72	23.15	1.448	43 98	0.17	-148 08	
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q23	6.31	22.49	1.285	17 33	0.17	-44.98	
P-59							
3Q22	6.52	24.71	1.317	3.95	0.28	-111 30	
4Q22	6.51	22.21	1.538	2.65	0.49	-38.03	
1Q23	6.67	19.83	1.555	0.32	0.73	2 54	
2Q23	6.45	23.59	1.369	0.00	0.32	-72.13	
P-66							
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-68							
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-74							
3Q22	6.38	22.48	0.187	7.58	0.33	-31.81	
4Q22	6.81	20.30	0.209	7.28	0.63	8 60	
1Q23	7.26	19.39	0.196	9.01	1.29	28.23	
2Q23	7.24	18.13	0.214	6.29	1.51	-37.55	
P-93A							
3Q22	6.43	21.50	1.272	0.00	0.68	114 90	
4Q22	6.50	19.20	1.299	0.00	0.67	50.44	
1Q23	6.31	16.43	1.225	0.00	0.82	93.44	
2Q23	6.20	21.54	1.091	0.00	0.32	25.60	

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-93B							
3Q22	6.59	19.72	1.302	3.18	0.46	-68.28	
4Q22	6.64	19.56	1.485	0.20	0.47	-38.51	
1Q23	6.76	18.29	1.454	2.18	0.46	4 29	
2Q23	6.42	19.94	1.258	2.98	0.35	-49.48	
P-93C							
3Q22	6.92	20.48	1.069	5.27	0.33	-105.41	
4Q22	6.72	17.75	1.056	0.00	0.73	15.79	
1Q23	6.92	15.15	1.044	0.00	0.78	-29.33	
2Q23	6.31	20.76	1.025	0.00	0.40	7 91	
P-93D							
3Q22	6.97	19.27	1.110	3.28	0.32	-47.87	
4Q22	6.90	18.60	1.189	3.89	0.47	3 30	
1Q23	7.07	15.95	1.134	3.76	0.75	-21.56	
2Q23	6.86	18.09	0.970	1.23	0.99	-6 94	
ROST-3-MW							
3Q22	6.67	18.71	1.142	2.55	0.80	-99.94	
4Q22	6.67	17.49	1.124	2.78	0.62	-65.21	
1Q23	6.71	14.79	1.150	12.18	0.61	-97.69	
2Q23	6.93	17.73	1.173	26 09	0.69	-99.95	
ROST-4-PZ(C)							
3Q22	6.99	22.33	1.255	19 62	0.42	-108 20	
4Q22	6.94	17.58	1.169	7.60	0.63	-47.89	
1Q23	6.92	14.37	1.266	9.86	0.75	-0 84	
2Q23	6.99	15.82	1.253	10.70	0.67	-50.95	
ROST-4-PZ(E)							
3Q22	6.84	21.15	1.725	3.93	0.30	-110.72	
4Q22	6.88	18.70	1.164	13 99	0.48	-25.70	
1Q23	6.80	17.94	1.876	12 31	0.69	20.86	
2Q23	6.69	NM	NM	13 82	0.75	-94.07	Temperature and conductivity sensor failure.
ROST-4-PZ(G)							
3Q22	6.85	20.76	1.159	20 69	0.84	-143 21	
4Q22	6.83	18.69	1.144	28 04	0.59	-84.25	
1Q23	6.94	17.35	1.414	7.42	0.54	-49.84	
2Q23	7.04	19.23	1.531	34.16	0.59	-111 97	
T-12							
3Q22	6.83	22.65	1.570	4.86	0.30	-137.14	
4Q22	6.83	21.41	1.803	0.00	0.64	-65.45	
1Q23	6.74	18.43	1.958	0.00	0.72	29.57	
2Q23	6.56	22.50	1.815	4.97	0.33	-82.83	

NOTES:

1) Field parameters were collected using a YSI ProDSS.

2) NM = Not Measured

3) * = Equipment malfunction. Results are suspect.

4) Negative parameter readings for Turbidity and DO are recorded as zero.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	Bromodichloromethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chloroform	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Toluene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.0002 [2]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.07 [1]		0.14 [3]		0.0002 [1]	0.07 [1]		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW1-ROX-102022	10/20/2022	< 0.025	0.00066 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW1-ROX-011323	1/13/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW1-ROX-011323-PAH	1/13/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW1-ROX-040623	4/6/2023	< 0.025	0.00041 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000028	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-02	MW2-ROX-071422	7/14/2022	< 0.13	< 0.005	< 0.005	< 0.13	< 0.005	0 0060	< 0.005	< 0.005	< 0.005	< 0.005	< 0 005	0.0075	< 0.000032	< 0.005	0.42	0 069	< 0.005	0.045	0 095	0 0054
	MW2-ROX-102822	10/28/2022	< 0.025	0.0014	< 0.001	0.021 J	0.0060	0 0054	0.00066 J	< 0 001 UJ	< 0.001	< 0.001	< 0 001	0.0050	< 0.000030	< 0.001	0 09	0 047	< 0.001	0.022	0 076	0 0039
	MW2-ROX-011323	1/13/2023	< 0.025	0.0016	< 0.001	0.033	0.0040	0 0046	0.00063 J	0 00063 J	< 0.001	< 0.001	< 0 001	0.0039	< 0.000030	< 0.001	0.036	0 037	< 0.001	0 01	0 058	0 0032
	MW2-ROX-041823	4/18/2023	0.062	0.00084 J	0.0010 J	< 0.05 U	0.0024	< 0.002	0.016	< 0.002	< 0.002	< 0.002	< 0 002	0.0016 J	< 0.000029	< 0.002	0.4	0 023	< 0.002	0 05	0 027	0 0031
MW-03	MW3-ROX-071422	7/14/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000033	< 0.001	< 0 001	< 0.001	0.00085 J	< 0 005	< 0.001	< 0.001
	MW3-ROX-102522	10/25/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000034	< 0.001	< 0 001	< 0.001	0.0010	< 0 005	< 0.001	< 0.001
	MW3-ROX-011123	1/11/2023	< 0.025	0.00061 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	0.0017	< 0 005	< 0.001	< 0.001
	MW3-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW3-ROX-041723	4/17/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	0.00064 J	< 0 005	< 0.001	< 0.001
	MW3-ROX-041723-DUP	4/17/2023	< 0.025	< 0.001	**< 0.001**	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00074 J	< 0 005	< 0.001	< 0.001
MW-04	MW4-ROX-071822	7/18/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000032	< 0.001	< 0 001	< 0.001	0.00044 J	< 0 005	< 0.001	< 0.001
	MW4-ROX-103122	10/31/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.00084 J	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00036 J	< 0 005	< 0.001	< 0.001
	MW4-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	0.00041 J	< 0 005	< 0.001	< 0.001
	MW4-ROX-040723	4/7/2023	< 0.025	0.00076 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00027 J	< 0 005	< 0.001	< 0.001
MW-05	MW5-ROX-071122	7/11/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	0.0022	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	0.0030	< 0 005	< 0.001	< 0.001
	MW5-ROX-102722	10/27/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	0.0021	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000032	< 0.001	< 0 001	< 0.001	0.0027	< 0 005	< 0.001	< 0.001
	MW5-ROX-011023	1/10/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	0.0016	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.0026	< 0 005	< 0.001	< 0.001
	MW5-ROX-041423	4/14/2023	< 0.025	0.00031 J	< 0.001	< 0 025	< 0.001	< 0.001	0.0010	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	0.0029	< 0 005	< 0.001	< 0.001
MW-06A	MW6A-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00038 J	< 0 005	< 0.001	< 0.001
	MW6A-ROX-102122	10/21/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00038 J	< 0 005	< 0.001	< 0.001
	MW6A-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6A-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00061 J	< 0 005	< 0.001	< 0.001
	MW6A-ROX-041123	4/11/2023	< 0.025	0.00038 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00038 J	< 0 005	< 0.001	< 0.001
	MW6A-ROX-041123-DUP	4/11/2023	< 0.025	0.00038 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00034 J	< 0 005	< 0.001	< 0.001
MW-06B	MW6B-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00033 J	< 0 005	< 0.001	< 0.001
	MW6B-ROX-102122	10/21/2022	< 0.025	0.00027 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00035 J	< 0 005	< 0.001	< 0.001
	MW6B-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00045 J	< 0 005	< 0.001	< 0.001
	MW6B-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6B-ROX-011123-DUP	1/11/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.001	< 0 000030	< 0 001	< 0.001	< 0.001	0.00046 J	< 0 005	< 0.001	< 0.001
	MW6B-ROX-011123-DUP-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6B-ROX-041123	4/11/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.001	< 0 000034	< 0 001	< 0.001	< 0.001	0.00041 J	< 0 005	< 0.001	< 0.001
MW-06C	MW6C-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.001	< 0 000030	< 0 001	< 0.001	< 0.001	0.00031 J	< 0 005	< 0.001	< 0.001
	MW6C-ROX-102122	10/21/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0 001 UJ	< 0 001	< 0.001	< 0.001	< 0 000030	< 0 001	< 0.001	< 0.001	0.00026 J	< 0 005	< 0.001	< 0.001
	MW6C-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.001	< 0 000029	< 0 001	< 0.001	< 0.001	0.00033 J	< 0 005	< 0.001	< 0.001
	MW6C-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6C-ROX-041123	4/11/2023	< 0.025	0.00025 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	0.00023 J	< 0 005	< 0.001	< 0.001
MW-06D	MW6D-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000032	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW6D-ROX-102122	10/21/2022	< 0.025	0.00021 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW6D-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6D-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW6D-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6D-ROX-041123	4/11/2023	< 0.025	0.00080 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	Bromodichloromethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chloroform	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Toluene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.0002 [2]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.07 [1]		0.14 [3]		0.0002 [1]	0.07 [1]		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-07	MW7-ROX-071822	7/18/2022	< 25 UJ	560	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 0.000031	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
	MW7-ROX-103122	10/31/2022	< 13	680	< 0.5	< 13	< 0.5	< 0.5	< 0 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.000031	< 0.5	< 0.5	< 0.5	0.3 J	< 2.5	< 0.5	0.82
	MW7-ROX-103122-DUP	10/31/2022	< 13	760	< 0.5	< 13	< 0.5	< 0.5	< 0 5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.000030	< 0.5	< 0.5	< 0.5	< 0 5	< 2.5	< 0.5	0.36 J
	MW7-ROX-010923	1/9/2023	< 50	420	< 2	< 50	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	0.000020 J*+ J	< 2	< 2	< 2	< 2	< 10	< 2	< 2
	MW7-ROX-040723	4/7/2023	< 25	890 J	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.000030	< 1	< 1	< 1	< 1	< 5	< 1	0.71 J
	MW7-ROX-040723-DUP	4/7/2023	< 25	620 J	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.000029	< 1	< 1	< 1	< 1	< 5	< 1	0.43 J
MW-08	MW8-ROX-071822	7/18/2022	< 1.3	13	< 0 05	< 1.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0 05	< 0.05	< 0.05	< 0.000035	< 0 05	< 0.05	< 0.05	0.061	< 0.25	< 0.05	< 0.05
	MW8-ROX-071822-DUP	7/18/2022	< 1.3	13	< 0 05	< 1.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0 05	< 0.05	< 0.05	< 0.000030	< 0 05	< 0.05	< 0.05	0.051	< 0.25	< 0.05	< 0.05
	MW8-ROX-103122	10/31/2022	<6.3	280	< 0 25	<6.3	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0 25	< 0.25	< 0.25	< 0.000031	< 0 25	0 31	< 0.25	< 0.25	< 1.3	< 0.25	0.9
	MW8-ROX-010923	1/9/2023	< 25 UJ	390	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	0.000028 J*+ J	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
	MW8-ROX-010923-DUP	1/9/2023	< 25 UJ	380	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	0.000028 J*+ J	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
MW-09	MW9-ROX-071222	7/12/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW9-ROX-102722	10/27/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005 H UJ	< 0.001	< 0.001
	MW9-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW9-ROX-041023	4/10/2023	< 0.025	0.00071 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-10	MW10-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW10-ROX-102022	10/20/2022	< 0.025	0.00050 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW10-ROX-011223	1/12/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW10-ROX-040623	4/6/2023	< 0.025	0.00073 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-11	MW11-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000034	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW11-ROX-102022	10/20/2022	< 0.025	0.00049 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW11-ROX-011223	1/12/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW11-ROX-040623	4/6/2023	< 0.025	0.00033 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-12	MW12-ROX-070822	7/8/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW12-ROX-102622	10/26/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW12-ROX-102622-PAH	10/26/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW12-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW12-ROX-040723	4/7/2023	< 0.025	0.0020	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-13	MW13-ROX-071122	7/11/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000032	< 0.001	< 0 001	< 0.001	0.00069 J	< 0 005	< 0.001	< 0.001
	MW13-ROX-102422	10/24/2022	< 0.025	0.00030 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.0010	< 0 005	< 0.001	< 0.001
	MW13-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	0.00074 J	< 0 005	< 0.001	< 0.001
	MW13-ROX-041323	4/13/2023	< 0.025	0.00091 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	0.0011	< 0 005	< 0.001	< 0.001
MW-14	MW14-ROX-071122	7/11/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW14-ROX-102422	10/24/2022	< 0.025	0.00054 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW14-ROX-102422-DUP	10/24/2022	< 0.025	0.00054 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW14-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW14-ROX-010923-DUP	1/9/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW14-ROX-041223	4/12/2023	0.011 J	0.00052 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-16	MW16-ROX-071222	7/12/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW16-ROX-102522	10/25/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000033	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW16-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW16-ROX-041023	4/10/2023	< 0.025	0.00023 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	Bromodichloromethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chloroform	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Toluene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.0002 [2]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.07 [1]		0.14 [3]		0.0002 [1]	0.07 [1]		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-22	MW22-ROX-071422	7/14/2022	< 0.025	0.0026	< 0.001	< 0 025	< 0.001	0 0021	0.0028	< 0.001	< 0.001	< 0.001	< 0 001	0.0027	< 0.000031	< 0.001	0.055	0 017	< 0.001	0.034	0 029	0 0057
	MW22-ROX-071422-DUP	7/14/2022	< 0.025	0.0024	< 0.001	< 0 025	< 0.001	0 0027	0.0045	< 0.001	< 0.001	< 0.001	< 0 001	0.0028	< 0.000032	< 0.001	0.052	0 021	< 0.001	0.039	0 037	0 0057
	MW22-ROX-102822	10/28/2022	< 0.025	0.0056	< 0.001	0 0039 J	0.0043	0 0023	0.0045	< 0 001 UJ	< 0.001	< 0.001	< 0 001	0.0029	< 0.000033	< 0.001	0 09	0.02	< 0.001	0.046	0 037	0 0099
	MW22-ROX-011023	1/10/2023	0.029 J	0.0085	< 0.002	0 0086 J	0.0041	0 0022	0.0044	< 0.002	< 0.002	< 0.002	< 0 002	0.0035	0.000041 *+ J	< 0.002	0.085	0 021	< 0.002	0.041	0 042	0.011
	MW22-ROX-041823	4/18/2023	0.048 J	0.023	< 0.002	0 0052 J	0.0033	0.0018 J	0.0045	< 0.002	< 0.002	< 0.002	< 0 002	0.0020	< 0 000030	< 0.002	0.082	0.02	< 0.002	0.067	0 036	0.018
MW-23	MW23-ROX-071322	7/13/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	0.00021 J	< 0 001	< 0.001	0.00082 J	< 0 005	< 0.001	< 0.001
	MW23-ROX-102622	10/26/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00042 J	< 0 005	< 0.001	< 0.001
	MW23-ROX-011023	1/10/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	0.00032 J	< 0 005	< 0.001	< 0.001
	MW23-ROX-041223	4/12/2023	< 0.025	0.00032 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	0.00066 J	< 0 005	< 0.001	< 0.001
MW-24	MW24-ROX-071122	7/11/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW24-ROX-102022	10/20/2022	< 0.025	0.00055 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW24-ROX-102022-PAH	10/20/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW24-ROX-011223	1/12/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW24-ROX-011223-PAH	1/12/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW24-ROX-041323	4/13/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-25	MW25-ROX-071822	7/18/2022	< 0.025	0.014	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000033	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW25-ROX-103122	10/31/2022	< 0.025	0.02	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	0.00069 J	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00078 J	< 0 005	< 0.001	< 0.001
	MW25-ROX-010923	1/9/2023	< 0.025	0.024	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00071 J	< 0 005	< 0.001	< 0.001
	MW25-ROX-040723	4/7/2023	< 0.025	0.04	< 0.001	0 0036 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.00037 J	< 0 005	< 0.001	< 0.001
MW-26	MW26-ROX-071222	7/12/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW26-ROX-102822	10/28/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW26-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW26-ROX-041023	4/10/2023	< 0.025	0.00027 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-27	MW27-ROX-071122	7/11/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW27-ROX-102622	10/26/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW27-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	MW27-ROX-041023	4/10/2023	< 0.025	0.00060 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
MW-28	MW28-ROX-071222	7/12/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	0.0064	< 0 005	< 0.001	< 0.001
	MW28-ROX-102522	10/25/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	0.0014	< 0 005	< 0.001	< 0.001
	MW28-ROX-102522-DUP	10/25/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000036	< 0.001	< 0 001	< 0.001	0.0014	< 0 005	< 0.001	< 0.001
	MW28-ROX-010523	1/5/2023	< 0.025	0.00038 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	0.0026	< 0 005	< 0.001	< 0.001
	MW28-ROX-041423	4/14/2023	< 0.025	0.00031 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	0.0019	< 0 005	< 0.001	< 0.001
P-54	P54-ROX-071222	7/12/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000032	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P54-ROX-102722	10/27/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P54-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P54-ROX-041223	4/12/2023	< 0.025	0.00036 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P54-ROX-041223-DUP	4/12/2023	< 0.025	0.00037 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
P-56	P56-ROX-071322	7/13/2022	< 0.025	0.00070 J	< 0.001	< 0 025	0.00082 J	0 0023	< 0.001	0.00074 J	< 0.001	< 0.001	0.0014	0.0012	< 0 000031	< 0.001	0.0022	0 017	< 0.001	0.0052	0 021	0 0014
	P56-ROX-110122	11/1/2022	< 0.025	0.00050 J	< 0.001	< 0 025	< 0.001	0 0011	< 0.001	< 0.001	0.0015	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	0.0062	< 0.001	< 0 005	0.0071	0.00042 J
	P56-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0 025	0 00089 J	0 0016	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	0 00087 J	< 0 000029	< 0.001	0.0012	0 012	< 0.001	< 0 005	0 014	0.00054 J
	P56-ROX-042023	4/20/2023	< 0.025	0.00075 J	< 0.001	0 0047 J	0.0014	0 0019	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0 001	0.0013	< 0 000029	< 0.001	0.0061	0.02	< 0.001	0.0059	0 024	0 0027

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	Bromodichloromethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chloroform	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Toluene
Screening Values (mg/L)			**6.3** [1]	**0.005** [1]	**0.0002** [2]	**4.2** [1]	**0.35** [3]	**0.7** [3]	**0.7** [3]	**0.7** [1]	**0.07** [1]		**0.14** [3]		**0.0002** [1]	**0.07** [1]		**0.7** [1]	**0.7** [1]	**0.07** [1]	**0.14** [1]	**0.7** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-57	P57-ROX-071522	7/15/2022	< 0.025	0.014	< 0.001	< 0 025	0.0033	0 0053	0.0074	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	0.00082 J	0 024	< 0.001	0.018	0 023	0 0040
	P57-ROX-102822	10/28/2022	0.02 J*+ J	0.054	< 0.001	< 0 025	0.0036	0 0058	0.0078	< 0.001	< 0.001	< 0.001	< 0 001	0 00076 J	< 0.000030	< 0.001	0.0014	0 031	< 0.001	0.012	0 035	0 0043
	P57-ROX-102822-PAH	10/28/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P57-ROX-011023	1/10/2023	0.01 J	0.05	< 0.001	0 0028 J	0.0023	0 0046	0.0054	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	0.00095 J	0 021	< 0.001	0.0082	0 023	0 0028
	P57-ROX-041923	4/19/2023	< 0.025	0.27	< 0.001	< 0 025	0 00088 J	0 0017	0.0021	< 0.001	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0.000029	< 0.001	0.0012	0.0093	< 0.001	0.026	0.01	0 0023
P-58	P58-ROX-071422	7/14/2022	< 25	230	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.000031	< 1	0.69 J	< 1	< 1	< 5	< 1	0.75 J
	P58-ROX-071422-DUP	7/14/2022	< 25	230	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.000031	< 1	0.57 J	< 1	< 1	< 5	< 1	0.58 J
	P58-ROX-041923	4/19/2023	< 25	150	< 1	< 25	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 1	< 0.000030	< 1	< 1	< 1	< 1	< 5	< 1	< 1
P-59	P59-ROX-071422	7/14/2022	< 0.5	1.9	< 0 02	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0 02	< 0.02	< 0.02	< 0.000033	< 0 02	0.3	0 056	< 0.02	0.13	0 086	0.14
	P59-ROX-110422	11/4/2022	0.14 J	2.2	< 0 01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0 01	< 0.01	< 0.01	< 0.000030	< 0 01	0.17	0 044	< 0.01	0.096	0 077	0.11
	P59-ROX-011123	1/11/2023	< 0.5	2.5	< 0 02	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0 02	< 0.02	< 0.02	< 0.000029	< 0 02	0.16	0 045	< 0.02	0.12	0 073	0.1
	P59-ROX-011123-DUP	1/11/2023	< 0.5	2.7	< 0 02	< 0.5	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0 02	< 0.02	< 0.02	< 0.000030	< 0 02	0.17	0 049	< 0.02	0.13	0 076	0.11
	P59-ROX-011123-DUP-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P59-ROX-042023	4/20/2023	< 0.25	1.4	< 0 01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 UJ	< 0 01	< 0.01	< 0.01	< 0.000030	< 0 01	0.084	0 028	< 0.01	0.077	0 043	0.062
P-74	P74-ROX-071322	7/13/2022	< 0.025	0.041	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	0 00059 J	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.00068 J	< 0 005	< 0.001	0 0013
	P74-ROX-102822	10/28/2022	< 0.025	0.029 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.00077 J	< 0 005	< 0.001	0.00050 J
	P74-ROX-102822-DUP	10/28/2022	< 0.025	0.022 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	0.0010	< 0 001	< 0.001	< 0.000029	< 0.001	< 0 001	< 0.001	0.00091 J	< 0 005	< 0.001	< 0.001
	P74-ROX-011023	1/10/2023	< 0.025	0.0013	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P74-ROX-041723	4/17/2023	0.022 J	0.012	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0.000029	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
P-93A	P93A-ROX-071522	7/15/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P93A-ROX-110122	11/1/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P93A-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	P93A-ROX-010523-PAH	1/5/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P93A-ROX-041923	4/19/2023	< 0.025	0.00093 J	< 0.001	< 0 025	< 0.001	< 0.001	0.00085 J	< 0.001	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
P-93B	P93B-ROX-071522	7/15/2022	< 50 UJ	1100	< 2 UJ	< 50 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 0.000032	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 10 UJ	< 2 UJ	< 2 UJ
	P93B-ROX-071522-DUP	7/15/2022	< 50 UJ	1100	< 2 UJ	< 50 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 0.000031	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 10 UJ	< 2 UJ	< 2 UJ
	P93B-ROX-110422	11/4/2022	< 50 UJ	790	< 2 UJ	< 50 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 0.000031	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 10 UJ	< 2 UJ	< 2 UJ
	P93B-ROX-011123	1/11/2023	< 25 UJ	1400	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 0.000029	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
	P93B-ROX-042023	4/20/2023	< 50	400	< 2	< 50	< 2	< 2	< 2	< 2	< 2 UJ	< 2	< 2	< 2	< 0.000031	< 2	< 2	< 2	< 2	< 10	< 2	< 2
P-93C	P93C-ROX-071322	7/13/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.0038	< 0 005	< 0.001	< 0.001
	P93C-ROX-110122	11/1/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	0.0016	< 0 005	< 0.001	< 0.001
	P93C-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.0019	< 0 005	< 0.001	< 0.001
	P93C-ROX-041923	4/19/2023	< 0.025	0.071	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.0028	< 0 005	< 0.001	< 0.001
P-93D	P93D-ROX-071522	7/15/2022	< 0.025	0.0043	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	0.0010	< 0 005	< 0.001	< 0.001
	P93D-ROX-110322	11/3/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0011	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.00073 J	< 0 005	< 0.001	< 0.001
	P93D-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000032	< 0.001	< 0 001	< 0.001	0.00061 J	< 0 005	< 0.001	< 0.001
	P93D-ROX-010523-PAH	1/5/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P93D-ROX-042123	4/21/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.00083 J	< 0 005	< 0.001	0.00056 J

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	Bromodichloromethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chloroform	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Toluene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.0002 [2]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.07 [1]		0.14 [3]		0.0002 [1]	0.07 [1]		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-114R	P114R-ROX-071122	7/11/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.0013	< 0 005	< 0.001	< 0.001
	P114R-ROX-102422	10/24/2022	< 0.025	0.00047 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000031	< 0.001	< 0 001	< 0.001	0.00098 J	< 0 005	< 0.001	< 0.001
	P114R-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.0014	< 0 005	< 0.001	< 0.001
	P114R-ROX-010623-PAH	1/6/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P114R-ROX-041323	4/13/2023	< 0.025	0.00031 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	0.0011	< 0 005	< 0.001	< 0.001
ROST-3-MW	ROST3MW-ROX-071222	7/12/2022	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	0.00058 J	0 00061 J	< 0.001	< 0 005	< 0.001	< 0.001
	ROST3MW-ROX-102722	10/27/2022	0.023 J	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	ROST3MW-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	ROST3MW-ROX-041123	4/11/2023	< 0.025	0.00056 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001 UJ	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
ROST-4-PZ(C)	ROST4PZ(C)-ROX-071422	7/14/2022	< 0.025	0.0029	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	0 00094 J	< 0.000032	< 0.001	0.0027	0.0047	< 0.001	0 05	0.0077	0 0075
	ROST4PZ(C)-ROX-102822	10/28/2022	< 0.025	0.0025	< 0.001	0 0041 J	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0.001	< 0 001	0 00079 J	< 0.000030	< 0.001	0.0022	0.0050	< 0.001	0.048	0.0086	0 0030
	ROST4PZ(C)-ROX-011323	1/13/2023	< 0.025	< 0.001	< 0.001	0 0028 J	< 0.001	< 0.001	< 0.001	0 00090 J	< 0.001	< 0.001	< 0 001	< 0.001	< 0.000029	< 0.001	< 0 001	0 00094 J	< 0.001	< 0 005	0.0020	< 0.001
	ROST4PZ(C)-ROX-041723	4/17/2023	< 0.025	0.0010	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0 001	< 0.001	< 0.000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	0 00086 J	0.00056 J
ROST-4-PZ(E)	ROST4PZ(E)-ROX-071522	7/15/2022	< 0.025	0.021	< 0.001	< 0 025	< 0.001	0 0012	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	0.0018	< 0.000032	< 0.001	0.2	0.0089 J	< 0.001	0.11	0.013 J	0.025
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	< 0.025	0.017	< 0.001	< 0 025	< 0.001	0 0010	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	0.0012	< 0.000031	< 0.001	0.16	0.0068 J	< 0.001	0.11	0.0093 J	0.02
	ROST4PZ(E)-ROX-102822	10/28/2022	< 0.025	0.014	< 0.001	0.076	0.0020	0.00077 J	< 0.001	< 0 001 UJ	< 0.001	< 0.001	< 0 001	0.0015	< 0.000030	< 0.001	0 09	0.0045	< 0.001	0.11	0.0067	0 0089
	ROST4PZ(E)-ROX-102822-DUP	10/28/2022	< 0.025	0.014	< 0.001	0 08	0.0017	< 0.001	< 0.001	< 0 001 UJ	< 0.001	< 0.001	< 0 001	0.0014	< 0.000030	< 0.001	0.098	0.0046	< 0.001	0.12	0.0070	0 0093
	ROST4PZ(E)-ROX-011023	1/10/2023	0.085	0.0043	< 0.001	0.038	0.0016	0.00082 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	0 00075 J	< 0 000029	< 0.001	0.033	0.0052	< 0.001	0.063	0.0048	0 0037
	ROST4PZ(E)-ROX-041823	4/18/2023	< 0.025	0.0016	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	0.0091	0.0024	< 0.001	0.026	0.0017	0.00090 J
	ROST4PZ(E)-ROX-041823-DUP	4/18/2023	< 0.025	0.0018	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000029	< 0.001	0 01	0.0026	< 0.001	0.027	0.0019	0 0011
ROST-4-PZ(G)	ROST4PZ(G)-ROX-071222	7/12/2022	< 0.025	0.00033 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000031	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	ROST4PZ(G)-ROX-102722	10/27/2022	< 0.025	0.00047 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000032	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	ROST4PZ(G)-ROX-102722-PAH	10/27/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	ROST4PZ(G)-ROX-010623	1/6/2023	0.55	0.00032 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
	ROST4PZ(G)-ROX-041423	4/14/2023	< 0.025	0.00041 J	< 0.001	< 0 025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0 001	< 0.001	< 0 000030	< 0.001	< 0 001	< 0.001	< 0.001	< 0 005	< 0.001	< 0.001
T-12	T12-ROX-071422	7/14/2022	< 0.25	1.3	< 0 01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0 01	< 0.01	< 0.01	< 0 000033	< 0 01	0.012	0.0071 J	< 0.01	< 0.05	0 014	0.03
	T12-ROX-110122	11/1/2022	< 0.13	2.2	< 0.005	< 0.13	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0 005	< 0.005	< 0 000032	< 0.005	0.011	0.0050	< 0.005	0.02 J	0.0075	0.044
	T12-ROX-011123	1/11/2023	< 0.25	2.1	< 0 01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0 01	< 0.01	< 0.01	< 0 000029	< 0 01	0.026	0.0069 J	< 0.01	0 07	0.0090 J	0.053
	T12-ROX-011123-DUP	1/11/2023	< 0.25	2.1	< 0 01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0 01	< 0.01	< 0.01	< 0 000029	< 0 01	0.025	0.0068 J	< 0.01	0.058	0.0088 J	0.053
	T12-ROX-042023	4/20/2023	< 0.25	1.2	< 0 01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 UJ	< 0 01	< 0.01	< 0.01	< 0 000029	< 0 01	0.012	< 0.01	0.0022 J	< 0.05	< 0.01	0.026

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs						SVOCs													
			Trichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.006 [1]	1.4 [2]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW1-ROX-102022	10/20/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	0 000081 J	< 0.00019 U	< 0.00019 U	< 0.00019 U	< 0.00019	< 0.00019 U	< 0.029 UJ	< 0 0095	< 0.0095	< 0.00019 U	< 0.0095	< 0.00019
	MW1-ROX-011323	1/13/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0.00021	0.00014 J	0.00016 J	0.00029	0.00026	0.00017 J	< 0.031	< 0.01	< 0.01	0.00023	< 0.01	0 00018 J
	MW1-ROX-011323-PAH	1/13/2023	--	--	--	--	--	--	--	--	--	< 0.0002 H UJ	< 0.0002 H UJ	< 0.0002 H UJ	< 0.0002 H UJ	< 0 0002 H UJ	--	--	--	< 0.0002 H UJ	--	< 0 0002 H UJ
	MW1-ROX-040623	4/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
MW-02	MW2-ROX-071422	7/14/2022	< 0.005	0.092	0.049	0 24	0.021 J	0.26	< 0.00019	< 0.00019	< 0 00019	0.000056 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	MW2-ROX-102822	10/28/2022	< 0.001	0.018	0.026	0 04	0.0037 J	0.044	< 0.00096	< 0.00096	< 0 00019	< 0.00019 U	< 0.00019	0.00014 J	< 0.00019 UJ	0.00016 J	< 0.029	< 0 0096	< 0.0096	0.000081 J	< 0.0096	0.000085 J
	MW2-ROX-011323	1/13/2023	< 0.001	0.0057	0.011	0.015	0.0017 J	0.016	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021 UJ	< 0.032	< 0.011	< 0.011	< 0.00021	< 0.011	< 0.00021
	MW2-ROX-041823	4/18/2023	< 0.002	0.086	0.027	0 23	0.02	0.25	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
MW-03	MW3-ROX-071422	7/14/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019 UJ	< 0.00019	0.023 J	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019 UJ
	MW3-ROX-102522	10/25/2022	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019 U	< 0.00019 U	< 0.00019 U	< 0.00019	< 0.00019 U	< 0.028	< 0 0093	< 0.0093	< 0.00019	< 0.0093	< 0 00019 U
	MW3-ROX-011123	1/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0 000066 J	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0 01	< 0.00020	< 0.01	< 0.00020
	MW3-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	< 0.00020 H UJ	--	--	--	--	--	--	--	--
	MW3-ROX-041723	4/17/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	MW3-ROX-041723-DUP	4/17/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
MW-04	MW4-ROX-071822	7/18/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019 UJ	< 0.00019	< 0 00019	< 0.00019 U	0.00018 J	< 0.00019 U	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	0 00011 J
	MW4-ROX-103122	10/31/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW4-ROX-010923	1/9/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.031	< 0.01	< 0 01	< 0.00020	< 0.01	< 0.00020
	MW4-ROX-040723	4/7/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00039 UJ	< 0 00039 UJ	< 0.00039 UJ	< 0.00039 UJ	< 0 00039 UJ	< 0.00039 UJ	< 0.00039 UJ	< 0.00039 UJ	< 0.059	< 0.02	< 0 02	< 0.00039 UJ	< 0.02	< 0.00039 UJ
MW-05	MW5-ROX-071122	7/11/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019 U	0.00011 J	0.000078 J	< 0.00019	< 0.00019	0.016 J F2	0.0053 J	< 0.0093	< 0.00019	< 0.0093	< 0.00019
	MW5-ROX-102722	10/27/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00038 UJ	< 0 00038 UJ	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0.0093 H UJ	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW5-ROX-011023	1/10/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0.034	< 0.01	< 0 01	< 0.00020	< 0.01	< 0.00020
	MW5-ROX-041423	4/14/2023	0.00024 J	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
MW-06A	MW6A-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020 U	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.0097 H U	< 0.0099	< 0.00020	< 0.0099	< 0.00020
	MW6A-ROX-102122	10/21/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00018	0 00039	0.00017 J J	0.0034 B	0.0028 B	0 0051 B	0.0016	0.0019 B	< 0.028	< 0 0092	< 0.0092	0.0041 B	< 0.0092	< 0.00018
	MW6A-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	< 0.00032 H UJ	< 0.00032 H UJ	< 0 00032 H UJ	< 0.00032 H UJ	0.00018 J H J	< 0.00032 H UJ	< 0.00032 H UJ	< 0 00032 H UJ	--	--	--	0.00014 J H J	--	< 0 00032 H UJ
	MW6A-ROX-011123	1/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0 01	< 0.00021	< 0.01	< 0.00021
	MW6A-ROX-041123	4/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0 018 J	< 0 0098	< 0.0098	< 0.00020	< 0.0098 UJ	< 0.00020
	MW6A-ROX-041123-DUP	4/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0099	< 0.0099	< 0.00020	< 0.0099 UJ	< 0.00020
MW-06B	MW6B-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	MW6B-ROX-102122	10/21/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028 UJ	< 0 0091 H UJ	< 0.0093	< 0.00019 U	< 0.0093	< 0.00019
	MW6B-ROX-011123	1/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00021	0.000062 J J	< 0 00021	0.00017 J	< 0.00021	0.00028	< 0.00021	0.00025	< 0.032	< 0.011	< 0.011	0.00016 J	< 0.011	0 00011 J
	MW6B-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	< 0.00021 H UJ	--	0.00015 J H J	--	0.000096 J H J	--	< 0.00021 H UJ	--	--	--	0.00011 J H J	--	0.000092 J H J
	MW6B-ROX-011123-DUP	1/11/2023	< 0.001	< 0.001	< 0 001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	0 000036 J	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.01	< 0.00021
	MW6B-ROX-011123-DUP-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	< 0 00021 H UJ	--	--	--	--	--	--	--	--
	MW6B-ROX-041123	4/11/2023	< 0.001	< 0.001	< 0 001	< 0 005	< 0.005	< 0.01	< 0.00020	0.00013 J	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0.018 J	< 0 0099	< 0.0099	< 0.00020	< 0.0099 UJ	< 0.00020
MW-06C	MW6C-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.0096 H U	< 0.0099	< 0.00020	< 0.0099	< 0.00020
	MW6C-ROX-102122	10/21/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019 U	< 0.00019	< 0.00019 U	< 0.00019	< 0.00019	< 0.028	0.0059 J	< 0.0093	< 0.00019 U	< 0.0093	< 0.00019
	MW6C-ROX-011123	1/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0 000044 J	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0 01	< 0.00020	< 0.01	< 0.00020
	MW6C-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	< 0.0002 H UJ	--	--	--	--	--	--	--	--
	MW6C-ROX-041123	4/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0 01	< 0.00020	< 0.01 UJ	< 0.00020
MW-06D	MW6D-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW6D-ROX-102122	10/21/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	0.00013 J	0.00017 J J	0.0043 B	0.0028 B	0 0045 B	0.0015	0.0023 B	< 0.028	0.0047 J	< 0.0093	0.0056 B	< 0.0093	0.00034
	MW6D-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	< 0 00019 H UJ	< 0.00019 H UJ	0 000094 J H J	< 0.00019 H UJ	< 0 00019 H UJ	0.000093 J H J	--	--	--	< 0.00019 H UJ	--	< 0 00019 H UJ
	MW6D-ROX-011123	1/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00021	0.000054 J J	< 0 00021	< 0.00021	< 0.00021	0 000050 J	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0 01	< 0.00021	< 0.01	< 0.00021
	MW6D-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	< 0.00021 H UJ	--	--	--	< 0.00021 H UJ	--	--	--	--	--	--	--	--
	MW6D-ROX-041123	4/11/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097 UJ	< 0.00019

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs						SVOCs													
			Trichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.006 [1]	1.4 [2]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-07	MW7-ROX-071822	7/18/2022	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 5 UJ	< 10 UJ	0.00012 J J	0.00018 J	< 0.00019	0.000066 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	0.022 J*1	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	MW7-ROX-103122	10/31/2022	< 0.5	< 0 5	< 0.5	< 2.5	< 2.5	< 5	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0 00018	< 0.00018	< 0.00018	0.026 J	< 0 0092	< 0.0092	< 0.00018	< 0.0092	< 0.00018
	MW7-ROX-103122-DUP	10/31/2022	< 0.5	< 0 5	< 0.5	< 2.5	< 2.5	< 5	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0.00018	< 0 00018	< 0.00018	< 0.00018	< 0.028	< 0 0092	< 0.0092	< 0.00018	< 0.0092	< 0.00018
	MW7-ROX-010923	1/9/2023	< 2	< 2	< 2	< 10	< 10	< 20	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
	MW7-ROX-040723	4/7/2023	< 1	< 1	< 1	< 5	< 5	< 10	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0 02 J	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
	MW7-ROX-040723-DUP	4/7/2023	< 1	< 1	< 1	< 5	< 5	< 10	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0.021 J	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
MW-08	MW8-ROX-071822	7/18/2022	< 0.05	< 0.05	< 0 05	< 0.25	< 0.25	< 0.5	0.00031 J	< 0.00019	< 0.00019	0.000070 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW8-ROX-071822-DUP	7/18/2022	< 0.05	< 0.05	< 0 05	< 0.25	< 0.25	< 0.5	0.00035 J	0.00015 J	0 000058 J	0.000058 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW8-ROX-103122	10/31/2022	< 0.25	< 0.25	< 0 25	0.74 J	0.26 J	0 99 J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0093	< 0.0093	< 0.00019	< 0.0093	< 0.00019
	MW8-ROX-010923	1/9/2023	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 5 UJ	< 10 UJ	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	MW8-ROX-010923-DUP	1/9/2023	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 5 UJ	< 10 UJ	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
MW-09	MW9-ROX-071222	7/12/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00019 U	< 0 00019 U	0 00018 J	0.00015 J J	< 0.028	< 0 0094	< 0.0094	0.00017 J	< 0.0094	0.00022
	MW9-ROX-102722	10/27/2022	< 0.001	< 0.005 H UJ	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	0.0060 J	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW9-ROX-010523	1/5/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.01	< 0.00021
	MW9-ROX-041023	4/10/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	0.0022 J	< 0.00019	< 0.0097	< 0.00019
MW-10	MW10-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW10-ROX-102022	10/20/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	0 000034 J	< 0.00025 U	< 0.00019 U	< 0 00021 U	< 0.00019	< 0.00021 U	< 0.028	< 0 0093	< 0.0093	< 0.00020 U	< 0.0093	< 0.00019
	MW10-ROX-011223	1/12/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.01	< 0.00021
	MW10-ROX-040623	4/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.031	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
MW-11	MW11-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW11-ROX-102022	10/20/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00019	< 0 00019 U	< 0.00019	< 0.00019 U	< 0.029	< 0 0096	< 0.0096	< 0.00019 U	< 0.0096	< 0.00019
	MW11-ROX-011223	1/12/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.01	< 0.00021
	MW11-ROX-040623	4/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
MW-12	MW12-ROX-070822	7/8/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0.0095 H U	< 0.0095	< 0.00019	0.0046 J	< 0.00019
	MW12-ROX-102622	10/26/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	0 000068 J	< 0.00019 U	0 00026	0.00022	0.00020	0.00025	< 0.028	< 0 0093	< 0.0093	0.000072 J	< 0.0093	0 00018 J
	MW12-ROX-102622-PAH	10/26/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	< 0 00019 H UJ	< 0.00019 H UJ	< 0.00019 H UJ	< 0 00019 H UJ	< 0 00019 H UJ	< 0.00019 H UJ	--	--	--	< 0.00019 H UJ	--	< 0.00019 H UJ
	MW12-ROX-010623	1/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW12-ROX-040723	4/7/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029 UJ	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
MW-13	MW13-ROX-071122	7/11/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW13-ROX-102422	10/24/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00022 U	< 0.00019 U	0 00013 J	< 0.00022 U	< 0.028	< 0 0094	< 0.0094	0.00014 J	< 0.0094	0 00013 J
	MW13-ROX-010923	1/9/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	MW13-ROX-041323	4/13/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0099	< 0.0099	< 0.00020	< 0.0099	< 0.00020
MW-14	MW14-ROX-071122	7/11/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW14-ROX-102422	10/24/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00018	< 0.00018	0 000036 J	< 0.00018 U	< 0.00027 U	< 0.00023 U	0 00015 J	< 0.00033 U	< 0.028	< 0 0092	< 0.0092	0.00012 J	< 0.0092	0 00014 J
	MW14-ROX-102422-DUP	10/24/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	0 000034 J	< 0.00019 U	< 0.00020 U	< 0.00019 U	< 0.00019	< 0.00021 U	< 0.028	< 0 0093	< 0.0093	0.000080 J	< 0.0093	0.000078 J
	MW14-ROX-010923	1/9/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW14-ROX-010923-DUP	1/9/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	0.00023	< 0.0097	< 0.00019
	MW14-ROX-041223	4/12/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097 UJ	< 0.00019
MW-16	MW16-ROX-071222	7/12/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	0 00016 J J	< 0.00019 U	< 0.00019	0.00015 J J	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW16-ROX-102522	10/25/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00019	< 0.00019 U	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW16-ROX-010523	1/5/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.032	< 0.011	< 0.011	< 0.00021	< 0.011	< 0.00021
	MW16-ROX-041023	4/10/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020

SEE LAST PAGE OF TABLE FOR NOTES

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			VOCs						SVOCs													
			Trichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.006 [1]	1.4 [2]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-22	MW22-ROX-071422	7/14/2022	< 0.001	0.15	0.031	0 08	0.0076	0.088	< 0.00019 UJ	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0.0095 H U	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW22-ROX-071422-DUP	7/14/2022	< 0.001	0.18	0.04	0.097	0.0080	0.1	< 0.00019 UJ	< 0.00019	< 0.00019	0.00010 J	0 00019	0 000072 J	< 0.00019	< 0.00019	< 0.028	< 0.0095	< 0.0095	< 0.00019	< 0.0095	0.000083 J
	MW22-ROX-102822	10/28/2022	< 0.001	0.2	0.049	0 27	0.01	0.28	< 0.00019	< 0.00019	< 0 00019	< 0.00019 UJ	0.00013 J	0.00010 J	< 0.00019 UJ	0.00013 J	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	0 00010 J
	MW22-ROX-011023	1/10/2023	< 0.002	0.21	0.047	0 24	0.0097 J	0.25	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	MW22-ROX-041823	4/18/2023	< 0.002	0.18	0.056	0 32	0 011	0.33	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
MW-23	MW23-ROX-071322	7/13/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	0 000041 J	< 0.00019	< 0.00019	0.016 J	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW23-ROX-102622	10/26/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	0 000059 J	< 0.00019 U	0.00015 J	0.00011 J	< 0.00019	0.00015 J	< 0.028	< 0 0093	< 0.0093	< 0.00019	< 0.0093	0 00013 J
	MW23-ROX-011023	1/10/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	0.00010 J	< 0.00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0 01	< 0.00021	< 0.01	< 0.00021
	MW23-ROX-041223	4/12/2023	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	0.019 J	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
MW-24	MW24-ROX-071122	7/11/2022	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW24-ROX-102022	10/20/2022	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00018	< 0.00018	0.00012 J	0.00094 B	0 00061 B	0.00067 B	0.00030	< 0.00059 U	< 0.028	< 0 0092	< 0.0092	0.00098 B	< 0.0092	0.000052 J
	MW24-ROX-102022-PAH	10/20/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	0.000062 J H J	< 0.00019 H UJ	0.00012 J H J	< 0 00019 H UJ	< 0.00019 H UJ	0.00012 J H J	--	--	--	0.000072 J H J	--	< 0.00019 H UJ
	MW24-ROX-011223	1/12/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	0.00013 J	< 0.00021	< 0.00021	< 0.032	< 0.011	< 0.011	< 0.00021	< 0.011	0.000063 J
	MW24-ROX-011223-PAH	1/12/2023	--	--	--	--	--	--	--	--	--	--	--	0.000086 J H J	--	--	--	--	--	--	--	--
	MW24-ROX-041323	4/13/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
MW-25	MW25-ROX-071822	7/18/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019 UJ	< 0.00019	< 0.00019	0.000055 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	0.0084 J*1	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW25-ROX-103122	10/31/2022	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0093	< 0.0093	< 0.00019	< 0.0093	< 0.00019
	MW25-ROX-010923	1/9/2023	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0 01	< 0.00021	< 0.01	< 0.00021
	MW25-ROX-040723	4/7/2023	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
MW-26	MW26-ROX-071222	7/12/2022	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019 U	0 00012 J J	< 0.00019 U	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	0.00016 J J
	MW26-ROX-102822	10/28/2022	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019 U	< 0.00019	0.00011 J	< 0.00019 UJ	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	0.000059 J
	MW26-ROX-010623	1/6/2023	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.00020 UJ	< 0.00020	< 0.00020	< 0.031	< 0.01	< 0 01	< 0.00020	< 0.01	< 0.00020
	MW26-ROX-041023	4/10/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
MW-27	MW27-ROX-071122	7/11/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	0.00015 J	0.00018 J	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	MW27-ROX-102622	10/26/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00018	< 0.00018	0 000033 J	< 0.00018 U	0.00017 J	0.00012 J	< 0.00018	0.00014 J	< 0.028	< 0 0092	< 0.0092	< 0.00018	< 0.0092	0 00012 J
	MW27-ROX-010623	1/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0099	< 0.0099	< 0.00020	< 0.0099	< 0.00020
	MW27-ROX-041023	4/10/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
MW-28	MW28-ROX-071222	7/12/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	0 00010 J J	< 0.00019 U	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	MW28-ROX-102522	10/25/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019 U	< 0.00019 U	< 0.00023 U	0 00014 J	< 0.00028 U	< 0.028	< 0 0094	< 0.0094	0.00015 J	< 0.0094	0 00015 J
	MW28-ROX-102522-DUP	10/25/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 U	< 0.00019 U	< 0.00025 U	0 00016 J	< 0.00035 U	< 0.028	< 0 0094	< 0.0094	0.00015 J	< 0.0094	0 00013 J
	MW28-ROX-010523	1/5/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
	MW28-ROX-041423	4/14/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
P-54	P54-ROX-071222	7/12/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 UJ	0.00014 J	< 0.00019 UJ	0 00015 J	0.00011 J	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	0.00020
	P54-ROX-102722	10/27/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019 UJ	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	0.0046 J	< 0.0093	< 0.00019	< 0.0093	< 0.00019
	P54-ROX-010623	1/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.000056 JB	< 0.00020	< 0.00020	< 0.031	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020
	P54-ROX-041223	4/12/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0099	< 0.0099	< 0.00020	< 0.0099 UJ	< 0.00020
	P54-ROX-041223-DUP	4/12/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097 UJ	< 0.00019
P-56	P56-ROX-071322	7/13/2022	< 0.001	0.027	0.0071	0.052	0.0017 J	0.054	0.00063	< 0.00018	0 000075 J	< 0.00018	0.00016 J	0 000053 J	< 0.00018	< 0.00018	< 0.028	< 0 0092	< 0.0092	< 0.00018	< 0.0092	< 0.00018
	P56-ROX-110122	11/1/2022	< 0.001	< 0.001	< 0.001	0.0018 J	< 0.005	0.0018 J	0.00046	0.00014 J	< 0.00020	< 0.00020 U	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.031	0.0051 J	< 0.01	< 0.00020	< 0.01	< 0.00020
	P56-ROX-010923	1/9/2023	< 0.001	0.0070	0.0028	0.015	< 0.005	0.015	0.00084	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	P56-ROX-042023	4/20/2023	< 0.001	0.035	0.011	0 07	0.0016 J	0.072	0.00054	< 0.00020	0.00014 J*+ J	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.01	< 0.00020

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs						SVOCs													
			Trichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.006 [1]	1.4 [2]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-57	P57-ROX-071522	7/15/2022	< 0.001	< 0.001	< 0.001	0.0015 J	< 0.005	0.0018 J	0.00015 J J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029 H UJ	< 0.0095 H UJ	< 0.0095	< 0.00019	< 0.0095 H UJ	< 0.00019
	P57-ROX-102822	10/28/2022	< 0.001	< 0.001	< 0.001	0.0014 J	< 0.005	0.0018 J	0.00033 J	< 0.00093	< 0.00019	< 0.00020 U	0 00023	0.00025	< 0.00093	0.00026	< 0.028	0 0054 J H J	< 0.0093	0.00021	< 0.0093	0 00014 J
	P57-ROX-102822-PAH	10/28/2022	--	--	--	--	--	--	0.00035 J H J	< 0.00038 H UJ	< 0 00038 H UJ	< 0.00019 H UJ	< 0.00019 H UJ	< 0 00019 H UJ	< 0.00019 H UJ	0.00011 J H J	--	--	--	< 0.00019 H UJ	--	< 0.00019 H UJ
	P57-ROX-011023	1/10/2023	< 0.001	< 0.001	< 0.001	0 00092 J	< 0.005	< 0.01	0.00047	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	P57-ROX-041923	4/19/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	0.00019 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0099	< 0.0099	< 0.00020	< 0.0099	< 0.00020
P-58	P58-ROX-071422	7/14/2022	< 1	< 1	< 1	< 5	< 5	< 10	0.0013	0 00069	0.00075	0.00038	0 00039	0.00028	0.00021	< 0.00018	< 0.028	< 0 0092	< 0.0092	0.00049	< 0.0092	0.00018
	P58-ROX-071422-DUP	7/14/2022	< 1	< 1	< 1	< 5	< 5	< 10	0.0011	0 00060	0.00072	0.00057	0 00047	0.00023 J	0.00017 J	< 0.00037	< 0.055	< 0.018	< 0.018	0.00035 J	< 0.018	0 00014 J
	P58-ROX-041923	4/19/2023	< 1	< 1	< 1	< 5	< 5	< 10	< 0.00020	< 0.00020	< 0.00020	0.00040	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	0.00060	< 0.0098	< 0.00020
P-59	P59-ROX-071422	7/14/2022	< 0.02	0.14	0.064	0 28	< 0.1	0.29	0.00046	< 0.00038	0.00039	0.00025 J	0.00035 J	0.00011 J	< 0.00038	< 0.00038	< 0.056	< 0.019	< 0.019	< 0.00038	< 0.019	< 0.00038
	P59-ROX-110422	11/4/2022	< 0.01	0.069	0.038	0.16	< 0.05	0.16	0.00039	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0093	< 0.00019	< 0.0093	< 0.00019
	P59-ROX-011123	1/11/2023	< 0.02	0.051	0.039	0.15	< 0.1	0.16 J	0.00044	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	P59-ROX-011123-DUP	1/11/2023	< 0.02	0.058	0.04	0.17	< 0.1	0.17 J	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	0.000075 J	< 0.00019	< 0.00019	< 0.029 UJ	< 0.0096 UJ	< 0.0096	0.000092 J	< 0.0096 UJ	< 0.00019
	P59-ROX-011123-DUP-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	< 0.00038 H UJ	--	--	--	--	--	< 0.00038 H UJ	--	--
	P59-ROX-042023	4/20/2023	< 0.01	0.032	0.019	0.088	< 0.05	0.091 J	< 0.00099	< 0.00099	< 0 00099	< 0.00099	< 0.00099	< 0 00099	< 0.00099	< 0.00099	< 0.06	< 0.02	< 0 02	< 0.00099	< 0.02	< 0.00099
P-74	P74-ROX-071322	7/13/2022	< 0.001	< 0.001	< 0 001	0.0011 J	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	0.000087 J	0.00017 J	0.000061 J	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	P74-ROX-102822	10/28/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00038 UJ	< 0 00038 UJ	0 000030 J	< 0.00019 U	0.00014 J	0.00011 J	< 0 00019 U	0.00015 J	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	0.000048 J
	P74-ROX-102822-DUP	10/28/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019 U	< 0.00019	< 0 00019	< 0 00019 U	< 0.00019	< 0.028	< 0 0095 H UJ	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	P74-ROX-011023	1/10/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	P74-ROX-041723	4/17/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
P-93A	P93A-ROX-071522	7/15/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019 UJ	< 0.00019	< 0.00019	0.000050 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	P93A-ROX-110122	11/1/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00019 J	0.00016 J	< 0.00020	0.00011 J	< 0.031	0 0055 J H J	< 0.01	< 0.00020	< 0.01	< 0.00020
	P93A-ROX-010523	1/5/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	0.00029	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	P93A-ROX-010523-PAH	1/5/2023	--	--	--	--	--	--	--	--	--	--	--	< 0 00019 H UJ	--	--	--	--	--	--	--	--
	P93A-ROX-041923	4/19/2023	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0099	< 0.0099	< 0.00020	< 0.0099	< 0.00020
P-93B	P93B-ROX-071522	7/15/2022	< 2 UJ	< 2 UJ	< 2 UJ	< 10 UJ	< 10 UJ	< 20 UJ	< 0.00019 UJ	< 0.00019	< 0 00019	0.000099 J	0.00018 J	0.000051 J J	< 0.00019	< 0.00019	< 0.028	< 0 0093	< 0.0093	< 0.00019	< 0.0093	0.000065 J
	P93B-ROX-071522-DUP	7/15/2022	< 2 UJ	< 2 UJ	< 2 UJ	< 10 UJ	< 10 UJ	< 20 UJ	0.00035 J	0 00036	0 000046 J	0.000082 J	< 0.00018	< 0 00018	< 0.00018	< 0.00018	< 0.028	< 0 0092	< 0.0092	< 0.00018	< 0.0092	< 0.00018
	P93B-ROX-110422	11/4/2022	< 2 UJ	< 2 UJ	< 2 UJ	< 10 UJ	< 10 UJ	< 20 UJ	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	0.0049 J	< 0.0093	< 0.00019	< 0.0093	< 0.00019
	P93B-ROX-011123	1/11/2023	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 5 UJ	< 10 UJ	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	P93B-ROX-042023	4/20/2023	< 2	< 2	< 2	< 10	< 10	< 20	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	0.0054 J	< 0.0099	< 0.00020	< 0.0099	< 0.00020
P-93C	P93C-ROX-071322	7/13/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.01	< 0.00021
	P93C-ROX-110122	11/1/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020 U	0 00046	0.00028	< 0.00020	0.00030	< 0.031	< 0.01	< 0.01	< 0.00020	< 0.01	0.000094 J
	P93C-ROX-010523	1/5/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	P93C-ROX-041923	4/19/2023	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0 01	< 0.00020	< 0.01	< 0.00020
P-93D	P93D-ROX-071522	7/15/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00019 UJ	< 0.00019	< 0 00019	0.000060 J	0.00015 J	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0094	< 0.0094	< 0.00019	< 0.0094	< 0.00019
	P93D-ROX-110322	11/3/2022	< 0.001	< 0.001	< 0 001	< 0.005	< 0.005	< 0.01	< 0.00018	< 0.00018	< 0 00018	< 0.00018	< 0.00018	0.00012 J	< 0.00018	< 0.00018	< 0.028	0.0051 J	< 0.0092	< 0.00018	< 0.0092	< 0.00018
	P93D-ROX-010523	1/5/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0 00019	0.00022	< 0.00019	0.00033	< 0.00019	0.00026	< 0.028	< 0 0094	< 0.0094	0.00021	< 0.0094	< 0.00019
	P93D-ROX-010523-PAH	1/5/2023	--	--	--	--	--	--	--	--	--	< 0.00019 H UJ	--	< 0 00019 H UJ	--	< 0.00019 H UJ	--	--	--	< 0.00019 H UJ	--	< 0.00019 H UJ
	P93D-ROX-042123	4/21/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0099	< 0.0099	< 0.00020	< 0.0099	< 0.00020

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			VOCs						SVOCs													
			Trichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.006 [1]	1.4 [2]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-114R	P114R-ROX-071122	7/11/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	0.00028	< 0.00019	< 0.00019	< 0.00019 U	0.000099 J	0 000096 J	< 0.00019	< 0.00019	0.018 J	< 0.0096 H U	< 0.0094	< 0.00019	< 0.0094	0.000096 J
	P114R-ROX-102422	10/24/2022	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01	0.00043	< 0.00019	< 0.00019	< 0.00021 U	< 0.00027 U	< 0.00026 U	0 00018 J	< 0.00027 U	< 0.028	0.0050 J	< 0.0094	0.00023	< 0.0094	0 00016 J
	P114R-ROX-010623	1/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	0.00013 JB	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	P114R-ROX-010623-PAH	1/6/2023	--	--	--	--	--	--	--	--	--	--	--	< 0 00019 H UJ	--	--	--	--	--	--	--	--
	P114R-ROX-041323	4/13/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
ROST-3-MW	ROST3MW-ROX-071222	7/12/2022	< 0.001	< 0.001	< 0.001	0.0026 J	< 0.005	0.0026 J	0.000085 J	0.000057 J	< 0.00019	< 0.00019 U	0.00011 J	< 0.00019 U	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	ROST3MW-ROX-102722	10/27/2022	< 0.001	< 0.001	< 0.001	0 00071 J	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0093	< 0.0093	< 0.00019	< 0.0093	< 0.00019
	ROST3MW-ROX-010523	1/5/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0 00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.01	< 0.00021
	ROST3MW-ROX-041123	4/11/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098 UJ	< 0.00020
ROST-4-PZ(C)	ROST4PZ(C)-ROX-071422	7/14/2022	< 0.001	0.0099	0.0023	0.041	0.0011 J	0.042	0 0015 J	< 0.00019	0.00043	0.000082 J	0.00017 J	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	ROST4PZ(C)-ROX-102822	10/28/2022	< 0.001	0.011	0.0025	0.023	0.0015 J	0.025	< 0.00093	0.00033 J	0.00047	< 0.00019 U	< 0.00019	< 0 00019	< 0.00019 UJ	< 0.00019	< 0.028	< 0 0093	< 0.0093	< 0.00019	< 0.0093	0.000065 J
	ROST4PZ(C)-ROX-011323	1/13/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	0.00080	< 0.00021	0.00038	< 0.00021	< 0.00021	< 0 00021	< 0.00021 UJ	< 0.00021	< 0.031	< 0.01	< 0 01	< 0.00021	< 0.01	< 0.00021
	ROST4PZ(C)-ROX-041723	4/17/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	0.00059	0.00016 J	0.00043	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	0.019 J	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
ROST-4-PZ(E)	ROST4PZ(E)-ROX-071522	7/15/2022	< 0.001	0.16 J	0.024	0.27 J	0 033	0 31 J	0 0050 J	0 00065	0.0043 J	0.00022	0.00018 J	0.000059 J J	< 0.00019	< 0.00019	< 0.029	< 0 0095 H UJ	< 0.0096	0.00032	< 0.0096	< 0.00019
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	< 0.001	0.12 J	0.018	0.21 J	0 026	0 23 J	0 0029 J	0 00033	0.0012 J	0.000095 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0096	< 0.0096	< 0.00019	< 0.0096	< 0.00019
	ROST4PZ(E)-ROX-102822	10/28/2022	< 0.001	0.13	0.013	0 21	0 026	0.24	0.0030	0.00056 J	< 0.00019	< 0.00019 U	< 0.00019	< 0.00019 U	< 0.00019 UJ	< 0.00019	< 0.028 UJ	< 0 0094	< 0.0094	0.00010 J	< 0.0094	< 0.00019
	ROST4PZ(E)-ROX-102822-DUP	10/28/2022	< 0.001	0.13	0.013	0 22	0 027	0.24	0.0030	0.00048 J	< 0.00019	< 0.00019 U	< 0.00019	< 0 00019	< 0.00019 UJ	< 0.00019	< 0.028	< 0 0093	< 0.0093	0.000090 J	< 0.0093	< 0.00019
	ROST4PZ(E)-ROX-011023	1/10/2023	< 0.001	0.12	0.0066	0.097	0 014	0.11	0.0040	0 00064	0.0017	0.00015 J	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.028	< 0 0095	< 0.0095	0.00015 J	< 0.0095	< 0.00019
	ROST4PZ(E)-ROX-041823	4/18/2023	< 0.001	0.061	0.0013	0.031	0.0058	0.037	0.0016	< 0 00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0 0098	< 0.0098	0.00016 J	< 0.0098	< 0.00020
	ROST4PZ(E)-ROX-041823-DUP	4/18/2023	< 0.001	0.057	0.0014	0.032	0.0062	0.038	0.0013	0 00038	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
ROST-4-PZ(G)	ROST4PZ(G)-ROX-071222	7/12/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0 00019	< 0.00019	< 0.00019 U	0 00011 J J	< 0.00019 U	< 0.00019	< 0.00019	0.016 J	< 0.0095	< 0.0095	< 0.00019	< 0.0095	0.00017 J J
	ROST4PZ(G)-ROX-102722	10/27/2022	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0 00019	0.000075 J	< 0.00019	0 00044	0.00038	< 0.00019	0.00038	< 0.028	< 0 0094	< 0.0094	0.00016 J	< 0.0094	0.00024
	ROST4PZ(G)-ROX-102722-PAH	10/27/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	0.000067 J H J	< 0.00037 H UJ	< 0.00037 H UJ	< 0.00037 H UJ	< 0 00037 H UJ	< 0.00037 H UJ	--	--	--	< 0.00037 H UJ	--	< 0 00037 H UJ
	ROST4PZ(G)-ROX-010623	1/6/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0097	< 0.0097	< 0.00019	< 0.0097	< 0.00019
	ROST4PZ(G)-ROX-041423	4/14/2023	< 0.001	< 0.001	< 0.001	< 0 005	< 0.005	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.029	< 0 0098	< 0.0098	< 0.00020	< 0.0098	< 0.00020
T-12	T12-ROX-071422	7/14/2022	< 0.01	< 0.01	0.011	0.067	< 0.05	0.067 J	< 0.00020 UJ	< 0.00020	< 0.00020	0.00012 J	0 00020	0 000067 J	< 0.00020	< 0.00020	< 0.03	< 0 0098	< 0.0098	< 0.00020	< 0.0098	0.000063 J
	T12-ROX-110122	11/1/2022	< 0.005	0.0059	0.011	0.059	0.0051 J	0.064	0.00027	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	0.0055 J	< 0.01	< 0.00020	< 0.01	< 0.00020
	T12-ROX-011123	1/11/2023	< 0.01	0.019	0.022	0.11	0.0079 J	0.12	0.00032	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029 UJ	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	T12-ROX-011123-DUP	1/11/2023	< 0.01	0.018	0.022	0.11	0.0076 J	0.12	0.00026	0 00011 J J	< 0.00019	< 0.00019	< 0.00019	< 0 00019	< 0.00019	< 0.00019	< 0.029	< 0 0095	< 0.0095	< 0.00019	< 0.0095	< 0.00019
	T12-ROX-042023	4/20/2023	< 0.01	< 0.01	0 0094 J	0.04 J	< 0.05	0.044 J	0.00023	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0 00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0 01	< 0.00020	< 0.01	< 0.00020

SEE LAST PAGE OF TABLE FOR NOTES

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SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			SVOCs																		
			Dibenzofuran	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	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-070822	7/8/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	0.0038 J	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW1-ROX-102022	10/20/2022	< 0 0095	< 0.0095	< 0.0095	< 0 0095	0.0033 J	< 0.0095	< 0 00019 U	< 0.00019	< 0.0095	< 0 0095	0 000057 J	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0 00019 U	< 0.0095	< 0.00019 U	< 0.0095
	MW1-ROX-011323	1/13/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.00023	< 0.00021	< 0.01	< 0.01	0.00025	< 0 00021	< 0.00021	< 0.01	< 0.021	< 0.01	0.000080 J	< 0.01	0.00014 J	< 0.01
	MW1-ROX-011323-PAH	1/13/2023	--	--	--	--	--	--	< 0 0002 H UJ	--	--	--	< 0.0002 H UJ	--	--	--	--	--	< 0 0002 H UJ	--	< 0.0002 H UJ	--
	MW1-ROX-040623	4/6/2023	< 0.01	< 0.01 U	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
MW-02	MW2-ROX-071422	7/14/2022	< 0 0097	0.00035 J	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0.00019	0 011	0.023	< 0.0097	< 0.019	< 0.0097	0.000047 J	< 0.0097	< 0.00019	< 0.0097
	MW2-ROX-102822	10/28/2022	< 0 0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00096	< 0.00096	< 0.0096	< 0 0096	0 000087 J	0.0096	0.017	< 0.0096	< 0.019	< 0.0096	0.000076 J	< 0.0096	0.000083 J	< 0.0096
	MW2-ROX-011323	1/13/2023	< 0.011	0.00060 J	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00021	< 0.00021	< 0.011	< 0.011	< 0 00021	0.0091	0.013	< 0.011	< 0.021	< 0.011	0.000039 J	< 0 011	< 0.00021	< 0.011
	MW2-ROX-041823	4/18/2023	< 0 0098	< 0 0098 U	< 0.0098	< 0 0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	0.0095	0.026	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
MW-03	MW3-ROX-071422	7/14/2022	< 0.0095	< 0.0095	< 0.0095	< 0 0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0.00019 UJ	0.00011 J J	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019 UJ	< 0.0095
	MW3-ROX-102522	10/25/2022	< 0.0093	< 0.0093	< 0.0093	< 0 0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0 0093	< 0.00019 U	< 0 00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0.00019	< 0.0093	< 0.00019 U	< 0.0093
	MW3-ROX-011123	1/11/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0 00020	< 0 00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
	MW3-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW3-ROX-041723	4/17/2023	< 0 0097	< 0.0097	< 0.0097	< 0 0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097
	MW3-ROX-041723-DUP	4/17/2023	< 0 0096	< 0.0096	< 0.0096	< 0 0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	< 0 00019	< 0 00019	< 0.00019	< 0.0096	< 0.019	< 0.0096	< 0.00019	< 0.0096	< 0.00019	< 0.0096
MW-04	MW4-ROX-071822	7/18/2022	< 0 0096	< 0.0096	< 0.0096	< 0 0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	0 000071 J	< 0.00019	< 0.00019	< 0.0096	< 0.019	< 0.0096	< 0.00019	< 0.0096	0.000043 J	< 0 0096 UJ
	MW4-ROX-103122	10/31/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW4-ROX-010923	1/9/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
	MW4-ROX-040723	4/7/2023	< 0.02	< 0.02 U	< 0.02	< 0.02	< 0.02	< 0.02	< 0.00039 UJ	< 0 00039 UJ	< 0.02	< 0.02	< 0.00039 UJ	< 0.00039 UJ	< 0.00039 UJ	< 0.02	< 0.039	< 0.02	< 0.00039 UJ	< 0.02	< 0 00039 UJ	< 0.02
MW-05	MW5-ROX-071122	7/11/2022	< 0 0093	< 0 0093 U	< 0.0093	< 0 0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0 0093	0 000099 J	< 0.00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0.00019	< 0.0093	< 0.00019	< 0.0093
	MW5-ROX-102722	10/27/2022	< 0 0094	0.00046 J	< 0.0094	0 00035 J	0.0026 J	< 0.0094	< 0.00019	< 0 00038 UJ	< 0.0094	< 0 0094	0 000042 J	< 0.00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW5-ROX-011023	1/10/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	0.0037 J F1 J	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
	MW5-ROX-041423	4/14/2023	< 0 0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097
MW-06A	MW6A-ROX-070822	7/8/2022	< 0 0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
	MW6A-ROX-102122	10/21/2022	< 0 0092	< 0.0092	< 0.0092	< 0.0092	< 0.0092	< 0.0092	0.0012 B	< 0.00018	< 0.0092	< 0 0092	0.0015	< 0.00018	< 0.00018	< 0.0092	< 0.018	< 0.0092	< 0 00025 U	< 0.0092	0.0010 B	< 0.0092
	MW6A-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	< 0.00032 H UJ	< 0.00032 H UJ	--	--	< 0 00032 H UJ	< 0 00032 H UJ	< 0.00032 H UJ	--	--	--	< 0.00032 H UJ	--	< 0.00032 H UJ	--
	MW6A-ROX-011123	1/11/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01
	MW6A-ROX-041123	4/11/2023	< 0 0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
	MW6A-ROX-041123-DUP	4/11/2023	< 0 0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
MW-06B	MW6B-ROX-070822	7/8/2022	< 0 0096	< 0 0096 U	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	< 0 00019	< 0 00019	< 0.00019	< 0.0096	< 0.019	< 0.0096	< 0.00019	< 0.0096	< 0.00019	< 0.0096
	MW6B-ROX-102122	10/21/2022	< 0 0093	0 0013 JB	< 0 0093 UJ	< 0.0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0 0093	< 0 00019	< 0 00019	< 0.00019	< 0.0093 UJ	< 0.019 UJ	< 0.0093	< 0.00019	< 0.0093 UJ	< 0.00019 U	< 0.0093
	MW6B-ROX-011123	1/11/2023	< 0.011	< 0.011	< 0.011	< 0 011	< 0.011	< 0.011	< 0.00021	< 0.00021	< 0.011	< 0.011	< 0 00021	< 0.00021	< 0.00021	< 0.011	< 0.021	< 0.011	< 0.00021	< 0 011	0.00017 J	< 0.011
	MW6B-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.0001 J H J	--
	MW6B-ROX-011123-DUP	1/11/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01
	MW6B-ROX-011123-DUP-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6B-ROX-041123	4/11/2023	< 0 0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
MW-06C	MW6C-ROX-070822	7/8/2022	< 0 0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
	MW6C-ROX-102122	10/21/2022	< 0 0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0 00019 U	< 0.00019	< 0.0093	< 0 0093	< 0.00019	< 0.00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0 00019 U	< 0.0093	< 0.00019 U	< 0.0093
	MW6C-ROX-011123	1/11/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
	MW6C-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6C-ROX-041123	4/11/2023	< 0.01	< 0.01 U	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
MW-06D	MW6D-ROX-070822	7/8/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0.00019	< 0.00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW6D-ROX-102122	10/21/2022	< 0 0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	0.0029 B	< 0.00019	< 0.0093	< 0 0093	0.0015	< 0.00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0 00025 U	< 0.0093	0.0029 B	< 0.0093
	MW6D-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	--	--	< 0 00019 H UJ	< 0 00019 H UJ	0.0001 J H J	--	--	--	< 0.00019 H UJ	--	< 0.00019 H UJ	--
	MW6D-ROX-011123	1/11/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01
	MW6D-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6D-ROX-041123	4/11/2023	< 0 0097	< 0 0097 U	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			SVOCs																		
			Dibenzofuran	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	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-07	MW7-ROX-071822	7/18/2022	< 0 0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	0 00020	< 0.0096	< 0 0096	< 0.00019	0.0019	0.0030	< 0.0096	< 0.019	< 0.0096	0.00027	0.086	0.000054 J	< 0.0096
	MW7-ROX-103122	10/31/2022	< 0 0092	< 0.0092	< 0.0092	< 0.0092	< 0.0092	< 0.0092	< 0.00018	< 0.00018	< 0.0092	< 0 0092	< 0 00018	0.00098	0.0017	< 0.0092	0.0014 J	< 0.0092	< 0.00018	0.12	< 0.00018	< 0.0092
	MW7-ROX-103122-DUP	10/31/2022	< 0 0092	0.00082 J	< 0.0092	< 0.0092	< 0.0092	< 0.0092	< 0.00018	< 0.00018	< 0.0092	< 0 0092	< 0 00018	0.0010	0.0017	< 0.0092	0.0013 J	< 0.0092	0 00012 J	0.11	< 0.00018	< 0.0092
	MW7-ROX-010923	1/9/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	0 00018 J	< 0.00020	< 0.01	< 0.01	< 0.00020	0.0011	0.0015	< 0.01	< 0.02	< 0.01	0 00012 J	0.034	< 0.0002 U	< 0.01
	MW7-ROX-040723	4/7/2023	< 0.01	0.00042 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	0.00097	0 0013 J	< 0.01	< 0.02	< 0.01	< 0.00020	0.082 J	< 0.00020	< 0.01
	MW7-ROX-040723-DUP	4/7/2023	< 0.01	0.00073 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	0.0011	0 0018 J	< 0.01	0.00073 J	< 0.01	< 0.00020	0.13 J	< 0.00020	< 0.01
MW-08	MW8-ROX-071822	7/18/2022	< 0 0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	0 00032	< 0.0095	< 0 0095	< 0.00019	0.0065	0.00046	< 0.0095	< 0.019	< 0.0095	0.000058 J	0.12	< 0.00019	< 0 0095 UJ
	MW8-ROX-071822-DUP	7/18/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	0 00046	< 0.0094	< 0 0094	< 0.00019	0.0070	0.00041	< 0.0094	< 0.019	< 0.0094	0.000071 J	0.1	< 0.00019	< 0 0094 UJ
	MW8-ROX-103122	10/31/2022	< 0 0093	< 0.0093	< 0.0093	< 0 0093	< 0.0093	< 0.0093	0.000097 J	< 0.00019	< 0.0093	< 0 0093	< 0 00019	0 014	0.0061	< 0.0093	< 0.019	< 0.0093	< 0.00019	0 26	< 0.00019	< 0.0093
	MW8-ROX-010923	1/9/2023	0.00042 J	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	0 011	0.0042	< 0.0097	< 0.019	< 0.0097	0 00018 J	0 27	< 0.00019	< 0.0097
	MW8-ROX-010923-DUP	1/9/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	0.0011 J	< 0.00020	0.0096	0.0037	< 0.01	< 0.02	< 0.01	0.00024	0 23	< 0.00020	< 0.01
MW-09	MW9-ROX-071222	7/12/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	0.000089 J	< 0.00019	< 0.0094	< 0 0094	0.00021	< 0.00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW9-ROX-102722	10/27/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW9-ROX-010523	1/5/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01 UJ
	MW9-ROX-041023	4/10/2023	< 0 0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097
MW-10	MW10-ROX-070822	7/8/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW10-ROX-102022	10/20/2022	< 0 0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0 00032 U	< 0.00019	< 0.0093	< 0 0093	0 000044 J	< 0.00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0 00019 U	< 0.0093	< 0.00024 U	< 0.0093
	MW10-ROX-011223	1/12/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01
	MW10-ROX-040623	4/6/2023	< 0.01	0.00033 J	< 0.01	< 0.01	< 0.01	0.0034 J	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
MW-11	MW11-ROX-070822	7/8/2022	< 0 0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW11-ROX-102022	10/20/2022	< 0 0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	< 0 00019	< 0 00019	< 0.00019	< 0.0096	< 0.019	< 0.0096	< 0 00019 U	< 0.0096	< 0.00019 U	0.0058 J
	MW11-ROX-011223	1/12/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01
	MW11-ROX-040623	4/6/2023	< 0 0098	0.00044 J	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
MW-12	MW12-ROX-070822	7/8/2022	< 0 0095	< 0 0095 U	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	0.00048 J	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW12-ROX-102622	10/26/2022	< 0 0093	0.00057 J	< 0.0093	< 0.0093	< 0.0093	< 0.0093	0.000088 J J	< 0 00019 UJ	< 0.0093	< 0 0093	0.00017 J	< 0.00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	0.000097 J	< 0.0093	0.000080 J	< 0 0093 UJ
	MW12-ROX-102622-PAH	10/26/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	--	--	< 0 00019 H UJ	< 0 00019 H UJ	< 0.00019 H UJ	--	--	--	< 0.00019 H UJ	--	< 0.00019 H UJ	--
	MW12-ROX-010623	1/6/2023	< 0 0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW12-ROX-040723	4/7/2023	< 0 0098	0.00064 J	< 0 0098 UJ	< 0.0098	< 0.0098	0.0027 J	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098 UJ	< 0.02 UJ	< 0.0098	< 0.00020	< 0.0098 UJ	< 0.00020	< 0.0098
MW-13	MW13-ROX-071122	7/11/2022	< 0 0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW13-ROX-102422	10/24/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019 U	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW13-ROX-010923	1/9/2023	< 0 0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	< 0 00019	< 0 00019	< 0.00019	< 0.0096	< 0.019	< 0.0096	< 0.00019	< 0.0096	< 0.00019	< 0.0096
	MW13-ROX-041323	4/13/2023	< 0 0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
MW-14	MW14-ROX-071122	7/11/2022	< 0 0095	< 0 0095 U	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW14-ROX-102422	10/24/2022	< 0 0092	< 0.0092	< 0.0092	< 0.0092	< 0.0092	< 0.0092	0.000063 J	< 0.00018	< 0.0092	< 0 0092	< 0.00018 U	< 0 00018	0.000074 J	< 0.0092	< 0.018	< 0.0092	< 0 00018 U	< 0.0092	< 0.00018 U	< 0.0092
	MW14-ROX-102422-DUP	10/24/2022	< 0 0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0 0093	< 0.00019 U	< 0 00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0 00019 U	< 0.0093	< 0.00019 U	< 0.0093
	MW14-ROX-010923	1/9/2023	< 0 0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW14-ROX-010923-DUP	1/9/2023	< 0 0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	0.00032	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00033 U	< 0.0097
	MW14-ROX-041223	4/12/2023	< 0 0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097
MW-16	MW16-ROX-071222	7/12/2022	< 0 0094	0 0014 J	< 0 0094 UJ	< 0.0094	< 0.0094	< 0.0094	0.000075 J J	< 0.00019	< 0.0094	< 0 0094	< 0.00019	< 0 00019	< 0.00019	< 0.0094 UJ	< 0.019 UJ	< 0.0094	0.000046 J J	< 0.0094 UJ	< 0.00019	< 0.0094
	MW16-ROX-102522	10/25/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0.00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW16-ROX-010523	1/5/2023	< 0.011	< 0.011	< 0.011	< 0 011	< 0.011	< 0.011	< 0.00021	< 0.00021	< 0.011	< 0.011	< 0 00021	< 0 00021	0.00011 J	< 0.011	< 0.021	< 0.011	< 0.00021	< 0 011	< 0.00021	< 0.011 UJ
	MW16-ROX-041023	4/10/2023	< 0 0098	0.00043 J	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			SVOCs																		
			Dibenzofuran	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	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-22	MW22-ROX-071422	7/14/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	0.0042	0 0046 J	< 0.0094	< 0.019	< 0.0094	0.000054 J	< 0.0094	< 0.00019	< 0.0094
	MW22-ROX-071422-DUP	7/14/2022	< 0 0095	< 0.0095	< 0.0095	< 0 0095	< 0.0095	< 0.0095	0.000073 J	< 0.00019	< 0.0095	< 0 0095	0 000065 J	0.0051	0 0060 J	< 0.0095	< 0.019	< 0.0095	0 00011 J	< 0.0095	0.000067 J	< 0.0095
	MW22-ROX-102822	10/28/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019 UJ	< 0.0094	< 0 0094	0.00010 J	0.0072	0.0082	< 0.0094	< 0.019	< 0.0094	0.000080 J	< 0.0094	0.000070 J	< 0.0094
	MW22-ROX-011023	1/10/2023	< 0.0097	< 0.0097	< 0.0097	< 0 0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	0.0067	0.0063	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097
	MW22-ROX-041823	4/18/2023	< 0.0098	0.00069 J	0.0043 J	< 0 0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	0.01	0.011	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
MW-23	MW23-ROX-071322	7/13/2022	< 0.0095	< 0.0095	< 0.0095	< 0 0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW23-ROX-102622	10/26/2022	< 0.0093	0.00057 J	< 0.0093	0 00052 J	< 0.0093	< 0.0093	0.000083 J	< 0.00019	< 0.0093	< 0 0093	0.00012 J	< 0 00019	0.000056 J	< 0.0093	< 0.019	< 0.0093	0.000056 J	< 0.0093	0.000062 J	< 0.0093
	MW23-ROX-011023	1/10/2023	< 0.01	0.00093 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0 00021	< 0 00021	0.00012 J	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01
	MW23-ROX-041223	4/12/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0 01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0 00020	0.000090 J J	0 000077 J J	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
MW-24	MW24-ROX-071122	7/11/2022	< 0.0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW24-ROX-102022	10/20/2022	< 0.0092	< 0.0092	< 0.0092	< 0 0092	< 0.0092	< 0.0092	0.00098 B	< 0.00018	< 0.0092	< 0 0092	0.00027	< 0 00018	< 0.00018	< 0.0092	< 0.018	< 0.0092	< 0 00028 U	< 0.0092	0.00076 B	< 0.0092
	MW24-ROX-102022-PAH	10/20/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	--	--	< 0 00019 H UJ	< 0 00019 H UJ	< 0.00019 H UJ	--	--	--	< 0 00019 H UJ	--	< 0.00019 H UJ	--
	MW24-ROX-011223	1/12/2023	< 0.011	< 0 011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00021	< 0.00021	< 0.011	< 0.011	0 000065 J	< 0 00021	< 0.00021	< 0.011	< 0.021	< 0.011	0.000066 J	< 0 011	< 0.00021	< 0.011
	MW24-ROX-011223-PAH	1/12/2023	--	--	--	--	--	--	--	--	--	--	0.00013 J H J	--	--	--	--	--	< 0.00021 H UJ	--	--	--
	MW24-ROX-041323	4/13/2023	< 0.0095	< 0.0095	< 0.0095	< 0 0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
MW-25	MW25-ROX-071822	7/18/2022	< 0.0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0 0094 UJ
	MW25-ROX-103122	10/31/2022	< 0.0093	< 0.0093	< 0.0093	< 0 0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0 0093	< 0 00019	< 0 00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0.00019	< 0.0093	< 0.00019	< 0.0093
	MW25-ROX-010923	1/9/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0 00021	< 0 00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021 U	< 0.01
	MW25-ROX-040723	4/7/2023	< 0.01	0.00062 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0 00020	< 0 00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
MW-26	MW26-ROX-071222	7/12/2022	< 0 0095	< 0.0095	< 0.0095	< 0 0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	0.00015 J J	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW26-ROX-102822	10/28/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019 UJ	< 0.0094	< 0 0094	0 000048 J	< 0.00019	0.000066 J	< 0.0094	< 0.019	< 0.0094	0.000044 J	< 0.0094	0.000046 J	< 0.0094
	MW26-ROX-010623	1/6/2023	< 0.01	0.00067 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0 00020	< 0 00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
	MW26-ROX-041023	4/10/2023	< 0 0097	< 0.0097	< 0.0097	< 0 0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097
MW-27	MW27-ROX-071122	7/11/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	0.00020	0.00024	< 0.0094	< 0.019	< 0.0094	0.000051 J	< 0.0094	< 0.00019	< 0.0094
	MW27-ROX-102622	10/26/2022	< 0 0092	0.00060 J	< 0.0092	0 00045 J	< 0.0092	< 0.0092	< 0.00018	< 0 00018 UJ	< 0.0092	< 0 0092	0.00014 J	< 0.00018	< 0.00018	< 0.0092	< 0.018	< 0.0092	0.000044 J	< 0.0092	0.000039 J	< 0 0092 UJ
	MW27-ROX-010623	1/6/2023	< 0 0099	< 0.0099	< 0.0099	< 0 0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
	MW27-ROX-041023	4/10/2023	< 0 0098	0.00031 J	< 0.0098	< 0 0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
MW-28	MW28-ROX-071222	7/12/2022	< 0 0095	0.00031 J	< 0.0095	< 0 0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	0.00014 J J	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0.0095
	MW28-ROX-102522	10/25/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019 U	< 0 00019	0.000069 J	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	MW28-ROX-102522-DUP	10/25/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019 U	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019 U	< 0.0094
	MW28-ROX-010523	1/5/2023	< 0 0098	0 0010 J	< 0.0098	< 0 0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0 0098 UJ
	MW28-ROX-041423	4/14/2023	< 0 0098	< 0.0098	< 0.0098	< 0 0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
P-54	P54-ROX-071222	7/12/2022	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	0.000066 J	< 0.00019	< 0.0094	< 0 0094	0.00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	P54-ROX-102722	10/27/2022	< 0 0093	0.00032 J	< 0.0093	< 0 0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0 0093	< 0 00019	< 0 00019	< 0.00019	< 0.0093	< 0.019	< 0.0093	0.000039 J	< 0.0093	< 0.00019	< 0.0093
	P54-ROX-010623	1/6/2023	< 0.01	0.00064 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0 00020	< 0 00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
	P54-ROX-041223	4/12/2023	< 0 0099	< 0 0099 U	< 0.0099	< 0 0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
	P54-ROX-041223-DUP	4/12/2023	< 0 0097	< 0 0097 U	< 0.0097	< 0 0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	< 0.00019	< 0.0097
P-56	P56-ROX-071322	7/13/2022	< 0 0092	< 0.0092	< 0.0092	< 0 0092	< 0.0092	< 0.0092	< 0.00018	0 00034	< 0.0092	< 0 0092	< 0 00018	0.01	0.0092	< 0.0092	0.00060 J	< 0.0092	0.00073	< 0.0092	0.000045 J	< 0.0092
	P56-ROX-110122	11/1/2022	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	0.000091 J	0 00030	< 0.01	< 0.01	< 0.00020	0.0038	0.0020	< 0.01	< 0.02	< 0.01	0.00042	< 0.01	0.000064 J	< 0.01
	P56-ROX-010923	1/9/2023	0.00066 J	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	0 00039	< 0.0097	< 0 0097	< 0.00019	0 012	0.012	< 0.0097	< 0.019	< 0.0097	0.0011	< 0.0097	< 0.00019 U	< 0.0097
	P56-ROX-042023	4/20/2023	0.00047 J	< 0.01 U	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	0 00052	< 0.01	< 0.01	< 0.00020	0 019	0.018	< 0.01	< 0.02	< 0.01	0.0011	< 0.01	< 0.00020	< 0.01

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			SVOCs																			
			Dibenzofuran	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	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-57	P57-ROX-071522	7/15/2022	< 0.0095 H UJ	< 0.0095 H UJ	0 023 H J	< 0 0095 H UJ	< 0.0095 H UJ	< 0.0095 H UJ	< 0.00019	0 00027	< 0.0095	< 0 0095 H UJ	< 0.00019	0.0096	0.012	< 0.0095 H UJ	0.0015 H J	< 0.0095 H UJ	0 00018 J	< 0.0095 H UJ	< 0.00019	< 0.0095 H UJ
	P57-ROX-102822	10/28/2022	< 0 0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.00093	< 0.00093 UJ	< 0.0093	< 0 0093	0.00014 J	0 022	0.029	< 0.0093	< 0.019	< 0.0093	0.00055	< 0.0093	0 00020	< 0.0093
	P57-ROX-102822-PAH	10/28/2022	--	--	--	--	--	--	< 0.00038 H UJ	0 0008 H J	--	--	< 0 00019 H UJ	0.025 H J	0.027 H J	--	--	--	0.00028 J H J	--	< 0.00019 H UJ	--
	P57-ROX-011023	1/10/2023	0.00077 J	0.00091 J	< 0.0095	< 0 0095	< 0.0095	< 0.0095	< 0.00019	0 00069	< 0.0095	< 0 0095	< 0 00019	0 027	0.0079	< 0.0095	< 0.019	< 0.0095	0.00045	0.0071 J J	< 0.00019	< 0.0095
	P57-ROX-041923	4/19/2023	0.00048 J	< 0.0099	< 0.0099	< 0 0099	< 0.0099	< 0.0099	< 0.00020	0 00071	< 0.0099	< 0 0099	< 0 00020	0 034	0.029	< 0.0099	< 0.02	< 0.0099	0.00045	0 0069 J	< 0.00020	< 0.0099
P-58	P58-ROX-071422	7/14/2022	0.0026 J	< 0.0092	0.013	< 0.0092	< 0.0092	< 0.0092	0.00025	0.0030	< 0.0092	< 0.0092	0.00017 J	0 071	0.059	0.024	0.018	< 0.0092	0.0026	0 31	0.0011	< 0.0092
	P58-ROX-071422-DUP	7/14/2022	< 0.018	< 0.018	0.012 J	< 0 018	< 0.018	< 0.018	0 00029 J	0.0017	< 0.018	< 0.018	0 000088 J	0 088	0.051	0.023	0.016 J	< 0.018	0.0024	0.13	0.0013	< 0.018
	P58-ROX-041923	4/19/2023	0.0018 J	< 0.0098	< 0.0098	< 0 0098	< 0.0098	< 0.0098	< 0.00020	0.0019	< 0.0098	< 0 0098	< 0 00020	0 093	0.045	< 0.0098	< 0.02	< 0.0098	0.0018	0.72	0 00076	< 0.0098
P-59	P59-ROX-071422	7/14/2022	< 0.019	< 0 019	< 0.019	< 0.019	< 0.019	< 0.019	0 00023 J	0 00044	< 0.019	< 0.019	< 0.00038	0 014	0.02	< 0.019	< 0.038	< 0.019	0.0013	0.023	0 00047	< 0.019
	P59-ROX-110422	11/4/2022	< 0.0093	< 0.0093	< 0.0093	< 0 0093	< 0.0093	< 0.0093	0.00045	< 0.00019	< 0.0093	< 0 0093	< 0 00019	0 013	0.019	< 0.0093	< 0.019	< 0.0093	0.0011	0.024	< 0.00019	< 0.0093
	P59-ROX-011123	1/11/2023	< 0.0097	< 0.0097	< 0.0097	< 0 0097	< 0.0097	< 0.0097	< 0.00019	0.00036 J	< 0.0097	< 0 0097	< 0 00019	0.012 J	0.015 J	< 0.0097	0.0012 J	< 0.0097	0 00092 J	0.035 J	0.00037 J	< 0.0097
	P59-ROX-011123-DUP	1/11/2023	< 0 0096 UJ	< 0.0096 UJ	< 0.0096 UJ	< 0 0096	< 0.0096 UJ	< 0 0096 UJ	0.000089 J	< 0.00019	0 0036 J J	< 0.0096 UJ	< 0 00019	0.0039 J	0 0053 J	< 0.0096 UJ	< 0.019 UJ	< 0 0096 UJ	0 00037 J	0.0025 J J	0.00019 J	< 0 0096 UJ
	P59-ROX-011123-DUP-PAH	1/11/2023	--	--	--	--	--	--	0.00022 J H J	--	--	--	--	0.012 H J	0.016 H J	--	--	--	0.00076 H J	--	0 0004 H J	--
	P59-ROX-042023	4/20/2023	< 0.02	< 0.02	< 0.02	< 0.02	< 0 02	< 0.02	< 0.00099	< 0.00099	< 0.02	< 0.02	< 0 00099	0.0099	0.014	< 0.02	< 0.04	< 0.02	< 0.00099	0.016 J	< 0.00099	< 0.02
P-74	P74-ROX-071322	7/13/2022	< 0 0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	0.000048 J	< 0.0095	0.000069 J	< 0.0095
	P74-ROX-102822	10/28/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00038 UJ	< 0.00038 UJ	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	0.000052 J	< 0.0094	0.000055 J	< 0.0094
	P74-ROX-102822-DUP	10/28/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019 UJ	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	< 0.00019	< 0.0094
	P74-ROX-011023	1/10/2023	< 0 0096	0.00031 J	< 0.0096	< 0 0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	< 0 00019	< 0 00019	< 0.00019	< 0.0096	< 0.019	< 0.0096	< 0.00019	< 0.0096	0.000044 J	< 0.0096
	P74-ROX-041723	4/17/2023	< 0 0098	< 0.0098	< 0.0098	< 0 0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
P-93A	P93A-ROX-071522	7/15/2022	< 0 0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	< 0 00019	< 0 00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.00019	< 0.0095	< 0.00019	< 0 0095 UJ
	P93A-ROX-110122	11/1/2022	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	0.000098 J	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
	P93A-ROX-010523	1/5/2023	< 0 0096	< 0.0096	< 0.0096	< 0 0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	< 0 00019	< 0 00019	< 0.00019	< 0.0096	< 0.019	< 0.0096	< 0.00019	< 0.0096	< 0.00019	< 0 0096 UJ
	P93A-ROX-010523-PAH	1/5/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	P93A-ROX-041923	4/19/2023	< 0 0099	< 0.0099	< 0.0099	< 0 0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099
P-93B	P93B-ROX-071522	7/15/2022	< 0 0093	< 0.0093	0.0050 J	< 0.0093	< 0.0093	< 0.0093	< 0.00019	< 0 00019 UJ	< 0.0093	< 0 0093	0 000061 J	< 0.00019 UJ	0.00012 J J	< 0.0093	0.0012 J	< 0.0093	0.000041 J	0 32	0.000040 J	< 0 0093 UJ
	P93B-ROX-071522-DUP	7/15/2022	0.00042 J J	0 0015 J	0.0054 J	< 0.0092	< 0.0092	< 0.0092	< 0.00018	0.00040 J	< 0.0092	0.0013 J	< 0.00018	0.012 J	0.015 J	< 0.0092	0.0015 J	< 0.0092	0.00027	0.3	< 0.00018	< 0.0092
	P93B-ROX-110422	11/4/2022	< 0 0093	< 0.0093	0.0044 J	< 0.0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0.0093	< 0.00019	0.00016 J	< 0.00019	< 0.0093	0.0012 J	< 0.0093	< 0.00019	0 31	< 0.00019	< 0.0093
	P93B-ROX-011123	1/11/2023	< 0 0096	< 0.0096	0.0045 J	< 0.0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0.0096	< 0 00019	< 0 00019	< 0.00019	< 0.0096	0.0014 J	< 0.0096	< 0.00019	0 31	< 0.00019	< 0.0096
	P93B-ROX-042023	4/20/2023	< 0 0099	< 0 0099 U	0.0036 J	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0.0099	0.0010 J	< 0.0099	< 0.00020	0 38	< 0.00020	< 0.0099
P-93C	P93C-ROX-071322	7/13/2022	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01
	P93C-ROX-110122	11/1/2022	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020 U	< 0.00020	0.000082 J	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	0.000064 J	< 0.01
	P93C-ROX-010523	1/5/2023	< 0 0097	< 0.0097	< 0.0097	< 0 0097	< 0.0097	< 0.0097	0 00016 J	< 0.00019	< 0.0097	< 0 0097	< 0 00019	< 0 00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	0.000072 J	< 0 0097 UJ
	P93C-ROX-041923	4/19/2023	< 0.01	< 0 01	< 0.01	< 0.01 U	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0 00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.00020	< 0.01	< 0.00020	< 0.01
P-93D	P93D-ROX-071522	7/15/2022	< 0 0094	0.00083 J	< 0 0094 UJ	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.0094	< 0 0094	< 0 00019	< 0 00019	< 0.00019	< 0 0094 UJ	< 0.019 UJ	< 0.0094	< 0.00019	< 0 0094 UJ	0.000039 J	0 0036 J J
	P93D-ROX-110322	11/3/2022	< 0 0092	0.00084 J	< 0.0092	< 0.0092	0.0026 J	< 0.0092	0.000092 J	< 0.00018	< 0.0092	< 0 0092	< 0.00018	< 0 00018	< 0.00018	< 0.0092	< 0.019	< 0.0092	< 0.00018	< 0.0092	0.000068 J	< 0.0092
	P93D-ROX-010523	1/5/2023	< 0 0094	< 0.0094	< 0.0094	< 0 0094	< 0.0094	< 0.0094	0 00018 J	< 0.00019	< 0.0094	< 0 0094	< 0.00019	< 0 00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.00019	< 0.0094	0.00015 J	< 0 0094 UJ
	P93D-ROX-010523-PAH	1/5/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	< 0.00019 H UJ	--
	P93D-ROX-042123	4/21/2023	< 0 0099	< 0 0099 U	< 0.0099	< 0 0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0 0099	< 0 00020	< 0 00020	< 0.00020	< 0 0099	< 0.02	< 0.0099	< 0.00020	< 0.0099	< 0.00020	< 0.0099

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			SVOCs																			
			Dibenzofuran	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	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]	0.00006 [2]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-114R	P114R-ROX-071122	7/11/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	0.000091 J	< 0.00019	< 0.0094	< 0 0094	0.00011 J	< 0.00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	0.000062 J	< 0.0094	< 0.00019	< 0.0094
	P114R-ROX-102422	10/24/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	0.00022	< 0.00019	< 0.0094	< 0 0094	< 0.00020 U	< 0.00019	< 0.00019	< 0.0094	< 0.018	< 0.0094	< 0 00019 U	< 0.0094	0.00022 B	< 0.0094
	P114R-ROX-010623	1/6/2023	< 0 0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	0 00016 J	< 0.00019	< 0.0097	< 0 0097	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.00019	< 0.0097	0.00018 J	< 0.0097
	P114R-ROX-010623-PAH	1/6/2023	--	--	--	--	--	--	< 0.00019 H UJ	--	--	--	--	--	--	--	--	--	--	--	< 0.00019 H UJ	--
	P114R-ROX-041323	4/13/2023	< 0 0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
ROST-3-MW	ROST3MW-ROX-071222	7/12/2022	< 0 0096	0.00052 J	< 0 0096 UJ	< 0.0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.0096	< 0 0096	< 0 00019	0.00016 J	0.000063 J	< 0.0096 UJ	< 0.019 UJ	< 0.0096	< 0.00019	< 0.0096 UJ	< 0.00019	< 0.0096
	ROST3MW-ROX-102722	10/27/2022	< 0 0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.00019	< 0.00019	< 0.0093	< 0 0093	< 0 00019	0.00020	< 0.00019	< 0.0093	< 0.019	< 0.0093	< 0.00019	< 0.0093	< 0.00019	< 0 0093 UJ
	ROST3MW-ROX-010523	1/5/2023	< 0.01	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	0.00022	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.00021	< 0.01	< 0.00021	< 0.01 UJ
	ROST3MW-ROX-041123	4/11/2023	< 0 0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0 00020	< 0 00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
ROST-4-PZ(C)	ROST4PZ(C)-ROX-071422	7/14/2022	0.00077 J	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.000075 J	0.0011	< 0.0095	< 0 0095	< 0 00019	0 034	0.011	< 0.0095	0.00066 J	< 0.0095	0.0030	< 0.0095	0.00015 J	< 0.0095
	ROST4PZ(C)-ROX-102822	10/28/2022	0.00064 J	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.0093	< 0.00093	0.0013	< 0.0093	< 0 0093	0 000066 J	0 027	0.0084	< 0.0093	< 0.019	< 0.0093	0.0029	< 0.0093	0.00012 J	< 0.0093
	ROST4PZ(C)-ROX-011323	1/13/2023	0.00041 J J	< 0 01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	0 00080	< 0.01	< 0.01	< 0.00021	0.0048	< 0.00021	< 0.01	< 0.021	< 0.01	0.0024	< 0.01	0.000092 J	< 0.01
	ROST4PZ(C)-ROX-041723	4/17/2023	< 0 0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	0 00065	< 0.0096	< 0 0096	< 0.00019	0.0017	< 0.00019	< 0.0096	< 0.019	< 0.0096	0.00069	< 0.0096	0 00025	< 0.0096
ROST-4-PZ(E)	ROST4PZ(E)-ROX-071522	7/15/2022	0.0036 J	< 0.0096	0.024	< 0.0096	< 0.0096	< 0.0096	0 00072 J	0.0046 J	< 0.0096	< 0 0096	< 0.00019	0 077	0.075 J	< 0.0096	0.0021 J	< 0.0096	0 019	0 0026 J	0.0017 J	< 0 0096 UJ
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	0.0020 J	< 0.0096	0.019	< 0.0096	< 0.0096	< 0.0096	0.00017 J J	0.0024 J	< 0.0096	0.0032 J	< 0.00019	0 066	0.058 J	< 0.0096	0.0017 J	< 0.0096	0.0054 J	< 0.0096	0.00042 J	< 0 0096 UJ
	ROST4PZ(E)-ROX-102822	10/28/2022	0.0011 J	< 0.0094	< 0 0094 UJ	< 0.0094	< 0.0094	< 0.0094	< 0.00094	0.0021	< 0.0094	0.0017 J	0 000044 J	0.038 J	0.033 J	< 0.0094 UJ	< 0.019 UJ	< 0.0094	0.0044	< 0.0094 UJ	0 00029	< 0.0094
	ROST4PZ(E)-ROX-102822-DUP	10/28/2022	0.0010 J	< 0.0093	< 0.0093	< 0 0093	< 0.0093	< 0.0093	< 0.00093	0.0020	< 0.0093	0.0021 J	< 0.00019	0.064 J	0.057 J	< 0.0093	< 0.019	< 0.0093	0.0047	< 0.0093	0 00035	< 0.0093
	ROST4PZ(E)-ROX-011023	1/10/2023	0.0030 J	< 0.0095	< 0.0095	< 0 0095	< 0.0095	< 0.0095	0.00032	0.0027	< 0.0095	< 0 0095	< 0.00019	0 065	0.049	< 0.0095	< 0.019	< 0.0095	0.0085	< 0.0095	0 00070	< 0.0095
	ROST4PZ(E)-ROX-041823	4/18/2023	0.0014 J	< 0.0098	< 0.0098	< 0 0098	< 0.0098	< 0.0098	0.00022	0.0017	< 0.0098	< 0 0098	< 0.00020	0 056	0.021	< 0.0098	< 0.02	< 0.0098	0.0047	< 0.0098	0 00042	< 0.0098
	ROST4PZ(E)-ROX-041823-DUP	4/18/2023	< 0 0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	0.0014	< 0.0097	< 0 0097	< 0.00019	0 055	0.02	< 0.0097	< 0.019	< 0.0097	0.0039	< 0.0097	0 00029	< 0.0097
ROST-4-PZ(G)	ROST4PZ(G)-ROX-071222	7/12/2022	< 0 0095	0.00043 J	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.0095	< 0 0095	0.00016 J J	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	0.000044 J J	< 0.0095	< 0.00019	< 0.0095
	ROST4PZ(G)-ROX-102722	10/27/2022	< 0 0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	0 00012 J	< 0.00019	< 0.0094	< 0 0094	0.00025	< 0.00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	0 00012 J	< 0.0094	0.00012 J	< 0.0094
	ROST4PZ(G)-ROX-102722-PAH	10/27/2022	--	--	--	--	--	--	< 0.00019 H UJ	< 0.00019 H UJ	--	--	< 0 00037 H UJ	< 0 00019 H UJ	0.00012 J H J	--	--	--	< 0.00019 H UJ	--	< 0.00037 H UJ	--
	ROST4PZ(G)-ROX-010623	1/6/2023	< 0 0097	0.00030 J	< 0.0097	< 0.0097	< 0.0097	0 0029 J J	< 0.00019	< 0.00019	< 0.0097	< 0 0097	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	0.000037 J	< 0.0097	< 0.00019	< 0.0097
	ROST4PZ(G)-ROX-041423	4/14/2023	< 0 0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0 0098	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.00020	< 0.0098	< 0.00020	< 0.0098
T-12	T12-ROX-071422	7/14/2022	< 0 0098	< 0.0098	0.0060 J	< 0.0098	< 0.0098	< 0.0098	0.000070 J	< 0.00020	< 0.0098	0.0031 J	0 000042 J	< 0.00020	< 0.00020	< 0.0098	0.00062 J	< 0.0098	< 0.00020	0.13	0.000084 J	< 0.0098
	T12-ROX-110122	11/1/2022	< 0.01	< 0 01	< 0.01	< 0.01	0.0029 J	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	0 013	0.016	< 0.01	< 0.02	< 0.01	0 00019 J	0.12	< 0.00020	< 0.01
	T12-ROX-011123	1/11/2023	< 0 0095	< 0.0095	0 0039 J J	< 0.0095	< 0.0095	< 0.0095	< 0.00019	0.00037 J	< 0.0095	0.0054 J	< 0.00019	0 022	0.032	< 0.0095 UJ	< 0.019 UJ	< 0.0095	0.00045	0.023 J	< 0.00019	< 0.0095
	T12-ROX-011123-DUP	1/11/2023	< 0.0095	< 0.0095	0.0042 J	< 0 0095	< 0.0095	< 0.0095	< 0.00019	0.00034 J	< 0.0095	< 0 0095	< 0 00019	0 022	0.031	< 0.0095	0.00087 J	< 0.0095	0.00048	0.056 J	0.000051 J J	< 0.0095
	T12-ROX-042023	4/20/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0 01	< 0.01	< 0.00020	< 0.00020	< 0.01	0.0010 J	< 0 00020	0 022	0.031	< 0.01	< 0.02	< 0.01	0.00048	0.036	< 0.00020	< 0.01

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 L EPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables).

Groundwater monitoring wells designated for sampling in the Interim Groundwater Monitoring Program, P-55R, P-66, and P-68, contained LNAPL; therefore, these wells were not sampled.

The screened interval for certain monitoring wells was adjusted based on an evaluation of the results of annual bottom depth gauging conducted in the first quarter of each year.

Indicates a historical exceedance of screening criteria.

Indicates a current exceedance of screening criteria.

Empty shaded cell without a value indicates previous quarter analyte result was rejected or the analyte was not analyzed.

-- Empty cell without a value indicates current quarter analyte result was rejected or the analyte was not analyzed.

LABORATORY QUALIFIERS

J = The analyte was detected below the reporting limit. Result is estimated.

H = Analyzed or extracted out of holding time criteria.

F2 = Indicates MS/MSD RPD is outside acceptance limit.

*+ = Indicates LCS and/or LCSD is outside acceptance limit, high biased

*1 = LCS/LCSD RPD is outside contol limit

<# ## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Figures

The following MVS Descriptions and Assumptions apply to **Figure 6**. C Tech Development Corporation's Mining Visualization System, Version 9.94 (MVS 9.94) was used to model the estimated distribution of benzene in the groundwater.

MVS Descriptions and Assumptions:

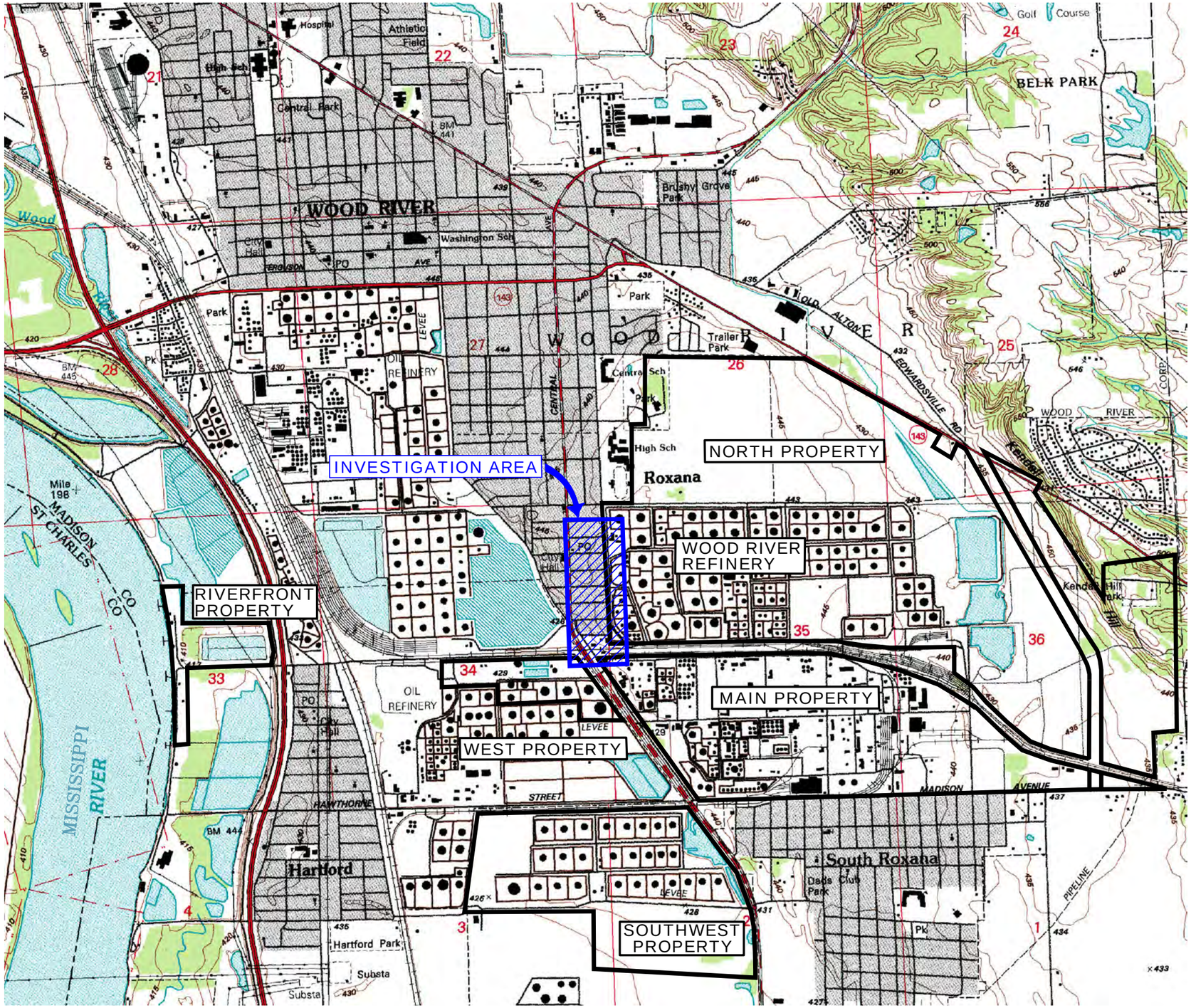
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

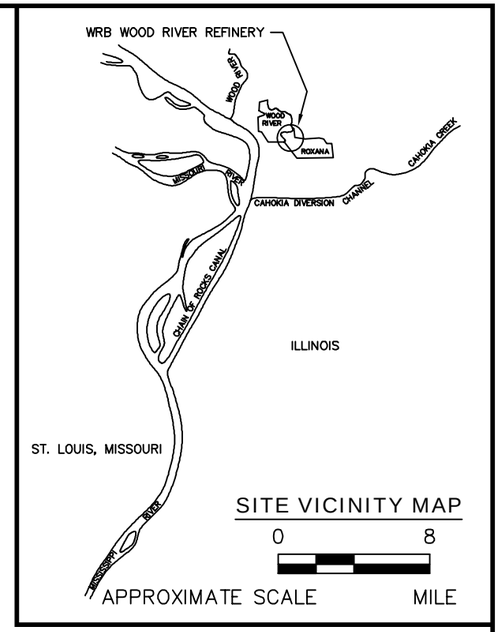
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

More simplified, if each sampling 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 – In locations and depths where duplication samples were collected, the higher concentration was used.

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





LEGEND

- WOOD RIVER REFINERY PROPERTY BOUNDARY
- INVESTIGATION AREA

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

0 2000

APPROXIMATE SCALE FEET

N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds July 2023 DSGN. BY:mar CHKD. BY:wmp	Investigation Area Location Map	FIG. NO. 1

File: C:\USERS\LORENTE.VEGOM\GDS GIS SERVICES - GIS CAD PROJECTS\GCS AMERICAS\SHELL\ILLINOIS\US700686-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2023 GW RPT\PART IN\WORKSPACE\FIGURE 1 INVESTIGATION AREA LOCATION MAP.DWG Last edited: 03/17/23 @ 12:35 PM @ WCC-ST.LOUIS

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2023 GW RPT\PART II\WORKSPACE\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: Mar. 29, 23 @ 5:39 PM by: lorente

LEGEND

- ROXANA INTERIM GROUNDWATER MONITORING WELL LOCATION
- GROUNDWATER MONITORING WELL LOCATION (NOT INCLUDED IN THE ROXANA INTERIM GROUNDWATER MONITORING PROGRAM)
- GROUNDWATER PIEZOMETER LOCATION
- GROUNDWATER PIEZOMETER LOCATION (NOT INCLUDED IN THE ROXANA INTERIM GROUNDWATER MONITORING PROGRAM)
- * ROXANA INTERIM GROUNDWATER MONITORING WELL SAMPLING LOCATION

FIRST ST
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
1ST STREET
2ND STREET
RAND AVENUE
VILLAGE OF ROXANA
NORTH PROPERTY
MAIN PROPERTY
WEST PROPERTY
BP
1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

T-1
PZ-1(101)
PZ-1(85)
MW-10*
MW-9*
MW-28*
MW-27*
P-55R*
ROST-4-PZ(A)
ROST-4-PZ(B)
ROST-4-PZ(C)*
ROST-4-PZ
P-60-11
ROST-3-MW*
ROST-4-PZ(D)
P-60-S
P-60-12
ROST-4-PZ(E)*
P-60
ROST-4-PZ(F)
ROST-4-PZ(G)*
P-68*
P-60-13
MW-11*
P-54*
MW-17
T-12*
MW-24*
MW-22*
P-69
MW-18
A-27
P-70
P-74*
MW-19
P-59*
P-61
GP-9-PZ
PZ-2(84)
PZ-2(70.5)
MW-12*
MW-20
P-56*
MW-2*
MW-1*
MW-26*
T-6
MW-21
P-57*
MW-4*
MW-3*
P-93A*
P-93B*
P-93C*
P-93D*
MW-25*
MW-5*
MW-7*
MW-23*
MW-8
P-58*
P-73
P-75
P-66*
MW-13*
MW-6A*
MW-6B*
MW-6C*
MW-6D*
MW-14*
P-114R*
A-22
A-28
A-33
A-34
F-76
F-77
F-78
F-73
F-74
F-75
T-24

0 200
SCALE FEET
N

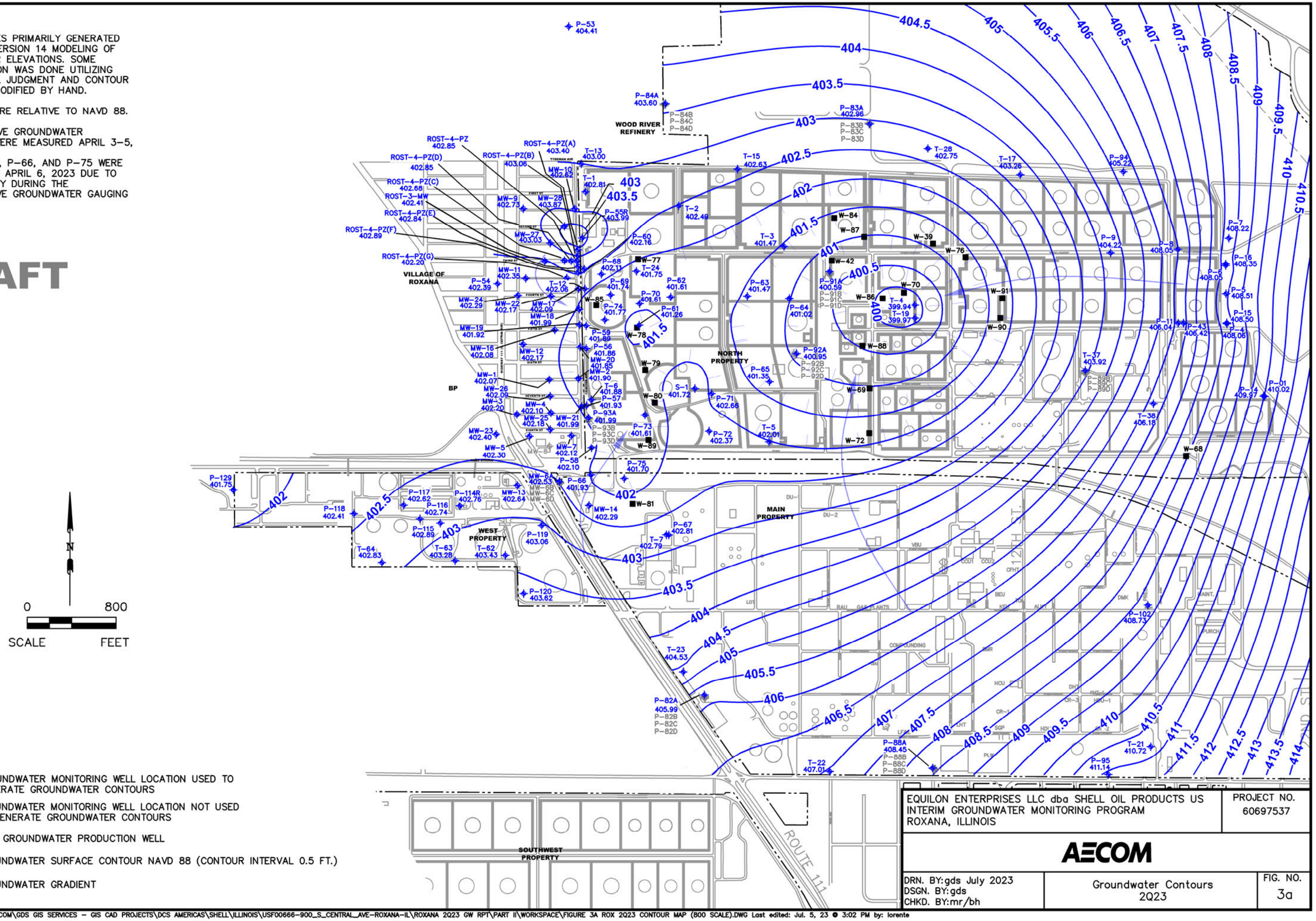
EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds July 2023 DSGN. BY:mr CHKD. BY:wmp	Roxana Interim Groundwater Monitoring Well Locations	FIG. NO. 2

NOTES:
1. CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 14 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.

2. ELEVATIONS ARE RELATIVE TO NAVD 88.

3. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 3–5, 2023.
4. WELLS MW–14, P–66, AND P–75 WERE MEASURED ON APRIL 6, 2023 DUE TO INACCESSIBILITY DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.

DRAFT



LEGEND

- GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- WRR GROUNDWATER PRODUCTION WELL
- —407— GROUNDWATER SURFACE CONTOUR NAVD 88 (CONTOUR INTERVAL 0.5 FT.)
- GROUNDWATER GRADIENT

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds July 2023 DSGN. BY:gds CHKD. BY:mr/bh	Groundwater Contours 2Q23	FIG. NO. 3a

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES – GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2Q23 GW RPT\PART II\WORKSPACE\FIGURE 3A ROX 2Q23 CONTOUR MAP (800 SCALE).DWG Last edited: Jul. 5, 23 @ 3:02 PM by: lorente

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2023 GW RPT\PART II\WORKSPACE\FIGURE 3B GW CONTOURS 2Q23 WF.DWG Last edited: Jul. 05, 23 @ 3:03 PM by: lorente

LEGEND

GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS

GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS

WRR GROUNDWATER PRODUCTION WELL

403 GROUNDWATER SURFACE CONTOUR (CONTOUR INTERVAL 0.5 FT)

GROUNDWATER GRADIENT

NOTES:
1. CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 14 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ELEVATIONS ARE RELATIVE TO NAVD 88.
3. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 3–5, 2023.
4. WELLS MW–14, P–66, AND P–75 WERE MEASURED ON APRIL 6, 2023 DUE TO INACCESSIBILITY DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.

403.5
403
403
403.5
402.5
402
401.5
402.5
402
402.5
403
403.5

TYDEMAN AVE
FIRST ST
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
VILLAGE OF ROXANA
VILLAGE OF ROXANA
BP
PUBLIC WORKS YARD
NORTH PROPERTY
WEST PROPERTY
MAIN PROPERTY
WOOD RIVER REFINERY
1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

T-13 403.00
T-1 402.81
T-2 402.49
MW-9 402.73
MW-10 402.62
MW-28 403.87
ROST-4-PZ(A) 403.40
ROST-4-PZ(B) 403.06
P-55R 403.99
MW-27 403.03
ROST-4-PZ(D) 402.85
ROST-4-PZ(C) 402.68
ROST-4-PZ 402.85
ROST-3-MW 402.41
P-60 402.16
ROST-4-PZ(E) 402.84
ROST-4-PZ(F) 402.89
ROST-4-PZ(G) 402.20
P-54 402.39
MW-11 402.35
MW-17 402.09
T-12 402.06
P-68 402.11
T-24 401.75
P-62 401.61
P-69 401.74
P-70 401.61
MW-24 402.29
MW-22 402.17
MW-18 401.99
P-74 401.77
P-59 401.89
P-61 401.26
MW-19 401.92
MW-16 402.08
P-56 401.86
MW-20 401.85
MW-12 402.17
MW-2 401.90
MW-1 402.07
P-71 402.66
S-1 401.72
MW-26 402.09
T-6 401.88
MW-4 402.10
MW-21 401.99
P-57 401.93
MW-3 402.20
P-93A 401.99
P-93B
P-93C
P-93D
MW-25 402.18
MW-7 402.12
MW-5 402.30
P-58 402.10
MW-23 402.40
MW-8
P-72 402.37
MW-6A 402.53
MW-6B
MW-6C
MW-6D
MW-13 402.64
P-66 401.93
P-75 401.70
P-117 402.62
P-114R 402.76
MW-14 402.29
P-116 402.74
P-115 402.89
P-119 403.06
P-67 402.81
T-7 402.79
T-64 402.83
T-63 403.28
T-62 403.43
W-77
W-85
W-78
W-79
W-80
W-89
W-81
A-31
A-32
A-58
A-57
A-34
A-33
A-37
A-27
A-35
A-16
A-30
A-22
A-29
A-147
F-76
F-77
F-78
F-73
F-74
F-75

DRAFT

0 300
SCALE FEET
N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
	AECOM	
DRN. BY:gds July 2023 DSGN. BY:gds CHKD. BY:mr/bh	Groundwater Contours 2Q23– West Fenceline	FIG. NO. 3b

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2023 GW RPT\PART II\WORKSPACE\FIGURE 4A THICKNESS OF LNAPL (WEST FENCLINE) 2023.DWG Last edited: Jul. 5, 23 @ 2:56 PM by: lorente

LEGEND

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

NOTE:
1. THIS MAP DEPICTS THE ESTIMATED EXTENT AND THICKNESS OF LNAPL BENEATH THE WEST FENCELINE AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON APRIL 3-5, 2023.
3. WELLS MW-14, P-66, AND P-75 WERE MEASURED ON APRIL 6, 2023 DUE TO INACCESSIBILITY DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.

TYDEMAN AVE
FIRST ST
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
RAND AVENUE
VILLAGE OF ROXANA
NORTH PROPERTY
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
PUBLIC WORKS YARD
BP
1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

P-84A P-84B P-84C P-84D
T-13 T-1 T-2 T-24 T-12 T-6
A-32 A-31 A-58 A-57 A-34 A-28 A-33 A-37 A-27 A-35 A-16 A-22 A-29 A-30
F-50 F-76 F-77 F-78 F-73 F-74 F-75
MW-9 MW-10 ROST-4-PZ(A) MW-28 ROST-4-PZ(B) ROST-4-PZ(D) MW-27 ROST-4-PZ(C) ROST-3-MW ROST-4-PZ ROST-4-PZ(E) ROST-4-PZ(F) MW-11 ROST-4-PZ(G) MW-17 MW-24 MW-22 MW-18 MW-19 MW-16 MW-12 MW-20 MW-2 MW-1 MW-26 MW-21 MW-3 MW-4 MW-25 MW-5 MW-7 MW-23 MW-13 MW-6A MW-6B MW-6C MW-6D MW-14
P-54 P-60 P-69 P-74 P-61 P-59 P-56 P-57 P-73 P-93A P-93B P-93C P-93D P-58 P-66 P-75 P-71 P-72 P-117 P-114R P-116 P-115 P-119
0.10 P-55R 0.11*
0.10 P-68 0.11*
1.00 P-62 1.03*
P-70 0.01*
0.01 S-1 0.02
0.01 T-7 0.02* P-67 0.01*
1.00 1.42*
W-85
R-77 W-77
R-78 W-78
R-79 W-79
R-80 W-80
R-89 W-89
R-81 W-81

0 300
SCALE FEET
N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds July 2023 DSGN. BY:mr CHKD. BY:bh	2Q23 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 LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- OIL RECOVERY WELL
- WATER PRODUCTION WELL
- LNAPL THICKNESS (FEET)
- * INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN

NOTES:
1. THIS MAP DEPICTS THE ESTIMATED EXTENT AND THICKNESS OF LNAPL BENEATH THE WRR AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON APRIL 3–5, 2023.
3. WELLS MW–14, P–66, AND P–75 WERE MEASURED ON APRIL 6, 2023 DUE TO INACCESSIBILITY DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.

VILLAGE OF ROXANA

NORTH PROPERTY

WEST PROPERTY

MAIN PROPERTY

SOUTHWEST PROPERTY

ILLINOIS TERMINAL RAILROAD

RAND AVE

MAIN OFFICE ROAD

0 800
SCALE FEET

N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60697537
AECOM	
DRN. BY: gds July 2023 DSGN. BY: mr CHKD. BY: bh	2Q23 Thickness of LNAPL — FIG. NO. 4b

Plot: C:\USERS\LORENTZ.AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\GDS AMERICAS\SHELL\ILLINOIS\USP00686-900.6_CENTRAL AVE-ROXANA-IL\ROXANA 2023 GW RPT\PART A\WORKSPACE\FIGURE 4B THICKNESS OF LNAPL (REFINERY) 2023.DWG Last edited: Jul. 05, 23 @ 12:58 PM by: lorentz

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00668-900 S CENTRAL AVE-ROXANA-IL\ROXANA 2023 GW RPT\PART II\WORKSPACE\FIGURE 5 2023 GROUNDWATER ANALYTICAL RESULTS SUMMARY.DWG Last edited: Jul. 05, 23 @ 2:14 PM by: lorente

LEGEND

- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- 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 SCREENING CRITERIA.

Analyte	Screening Criteria (mg/L)
Benzene	0.005
1,2,4-Trimethylbenzene	0.07
Benzo(a)anthracene	0.00013
2-Methylnaphthalene	0.028
Bromodichloromethane	0.0002
Phenol	0.1

3. J = THE RESULT IS ESTIMATED.
4. H = ANALYZED OR EXTRACTED OUT OF HOLDING TIME CRITERIA.
5. MULTIPLE RESULTS (e.g., 890 / 620) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
6. WELLS IDENTIFIED IN BLUE WITH NO DATA BOX INDICATE THE RESULTS DID NOT EXCEED SCREENING CRITERIA.
7. WELLS P-55R, P-66 AND P-68 WERE NOT SAMPLED DURING 1Q23 DUE TO THE PRESENCE OF LNAPL.

MW-9 MW-10 SECOND ST MW-28 P-55R NORTH PROPERTY A-34 MW-27 ROST-4-PZ(A) ROST-4-PZ(B) ROST-4-PZ(C) ROST-4-PZ THIRD ST ROST-3-MW ROST-4-PZ(D) ROST-4-PZ(E) ROST-4-PZ(F) P-60 MW-11 ROST-4-PZ(G) P-54 T-12 MW-17 MW-24 FOURTH ST MW-22 P-69 WOOD RIVER REFINERY A-27 P-70 MW-18 MW-19 P-59 P-74 P-61 FIFTH ST MW-16 HIGHWAY 111 (S. CENTRAL AVE) MW-12 VILLAGE OF ROXANA MW-20 P-56 CHAFFER AVE SIXTH ST MW-2 MW-1 1ST STREET SEVENTH ST MW-26 MW-21 T-6 P-57 MW-4 P-93A P-93B P-93C P-93D F-78 A-22 P-73 MW-3 EIGHTH ST MW-5 MW-25 MW-7 F-73 F-74 F-75 MW-23 MW-8 1986 APPROXIMATE BENZENE RELEASE SITE P-58 RAND AVENUE 2020 A GASOL P-66 P-75 WEST PROPERTY MW-13 MW-6A MW-6B MW-6C MW-6D MAIN PROPERTY P-114R MW-14

Sample Location	T-12
Sampled 4/20/2023	Result (mg/L)
Benzene	1.2
2-Methylnaphthalene	0.031

Sample Location	MW-22
Sampled 4/18/2023	Result (mg/L)
Benzene	0.023
1,2,4-Trimethylbenzene	0.18

Sample Location	P-74
Sampled 4/17/2023	Result (mg/L)
Benzene	0.012

Sample Location	P-59
Sampled 4/20/2023	Result (mg/L)
Benzene	1.4

Sample Location	P-93B	P-93C
Sampled 4/20, 4/19/23	Result (mg/L)	Result (mg/L)
Benzene	400	0.071
Phenol	0.38	<0.01

Sample Location	MW-2
Sampled 4/18/2023	Result (mg/L)
1,2,4-Trimethylbenzene	0.086
Bromodichloromethane	0.001 J

Sample Location	MW-7
Sampled 4/7/2023	Result (mg/L)
Benzene	890 / 620
Phenol	0.082 / 0.13

Sample Location	P-57
Sampled 4/19/2023	Result (mg/L)
Benzene	0.27
2-Methylnaphthalene	0.029

Sample Location	MW-25
Sampled 4/7/2023	Result (mg/L)
Benzene	0.04

Sample Location	P-58
Sampled 4/19/2023	Result (mg/L)
Benzene	150
Benzo(a)anthracene	0.0004
2-Methylnaphthalene	0.045
Phenol	0.72

Sample Location	MW-6B
Sampled 1/11/2023	Result (mg/L)
Benzo(a)anthracene	0.00015 J H J / <0.00021

DRAFT

0 200 SCALE FEET N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds July 2023 DSGN. BY:mr CHKD. BY:bh	2Q23 Groundwater Monitoring Well Analytical Exceedances	FIG. NO. 5

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00868-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2Q23 GW RPT\PART II\WORKSPACE\FIGURE 6 2Q23 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: Jul. 06, 23 @ 2:57 PM by: lorente

LEGEND

- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- GROUNDWATER MONITORING WELL, LNAPL THICKNESS IN FEET
- GROUNDWATER PIEZOMETER LOCATION NOT SAMPLED
- GROUNDWATER PIEZOMETER, LNAPL THICKNESS IN FEET
- OIL RECOVERY WELL
- WATER PRODUCTION WELL
- LNAPL THICKNESS (FEET)
- * INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN
- EXTENT OF MVS MODEL DATA SET
- 50.0 GROUNDWATER CONCENTRATION BENZENE (mg/L)

NOTES:

1. IMAGES GENERATED UTILIZING CTECH MINING 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., <0.001 mg/L).
4. NON-DETECT VALUES ARE MODELED AT HALF THE REPORTING LIMIT.
5. MULTIPLE RESULTS (e.g. 890 / 620) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
6. CONTOUR LINES IN AREA OF P-55R, P-58 AND P-66 ADJUSTED BASED ON AVAILABLE 2Q23 AND HISTORICAL ANALYTICAL DATA FROM WELLS IN THE AREA.
7. J = THE RESULT IS ESTIMATED.
8. AT WELL CLUSTER LOCATIONS, THE HIGHEST VALUE WAS USED FOR CONTOURING PURPOSES.

SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
RAND AVENUE
BP
VILLAGE OF ROXANA
NORTH PROPERTY
MAIN PROPERTY
WEST PROPERTY
WOOD RIVER REFINERY
PUBLIC WORKS YARD
2ND STREET
1ST STREET

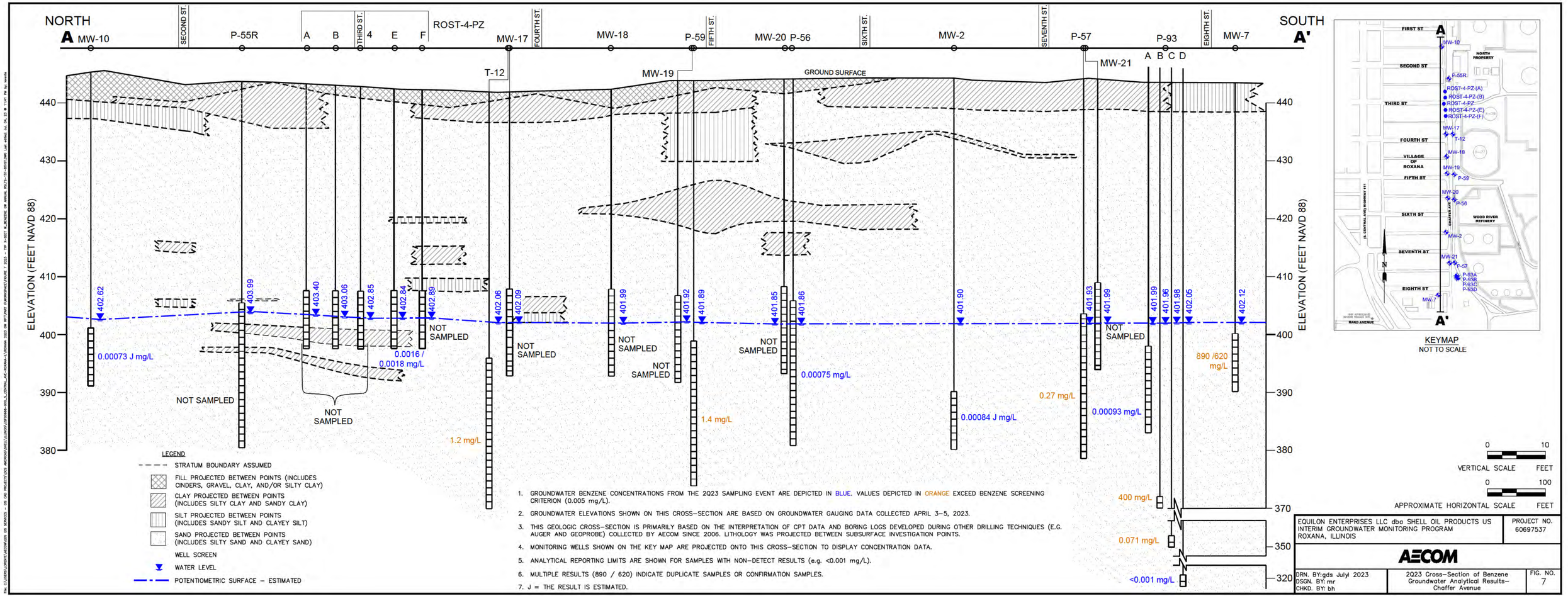
PZ-1(101)
PZ-1(85)
MW-9 0.00071 J
MW-10 0.00073 J
MW-28 0.00031 J
MW-27 0.0006 J
ROST-4-PZ(A)
ROST-4-PZ(B)
ROST-4-PZ(C) 0.001
ROST-3-MW 0.00056 J
ROST-4-PZ(D)
ROST-4-PZ(E) 0.0016 / 0.0018
ROST-4-PZ(F)
ROST-4-PZ(G) 0.00041 J
MW-11 0.0003 J
P-54 0.00036 J / 0.00037 J
MW-24 <0.001
MW-22 0.0023
MW-17
MW-18
MW-19
MW-16 0.00023 J
PZ-2(84)
PZ-2(70.5)
MW-12 0.002
MW-20
MW-01 0.00041 J
MW-2 0.00084 J
MW-26 0.00027 J
MW-4 0.00076 J
MW-3
MW-25 0.04
MW-23 0.00032 J
MW-5 0.00031 J
MW-8
MW-21
MW-13 0.00091 J
MW-6A 0.00038 J / 0.00038 J
MW-6B <0.001
MW-6C 0.00025 J
MW-6D 0.0008 J
MW-14 0.00052 J
P-114R 0.00031 J
P-115
P-55R 0.11* 0.10
P-60-11
P-60-S
P-60
P-60-12
P-60-13
P-66 0.11* 0.10
P-68
P-59 1.4
P-56 0.00075 J
P-57 0.27
P-74 0.012
P-93A 0.00093 J
P-93B 400
P-93C 0.071
P-93D <0.001
P-66 1.42* 1.00
P-58 150
MW-7 890 /620
P-69
P-70 0.01*
P-61
P-73
P-75
R-77 W-77
T-24 0.01
T-12 1.2
R-85 W-85
R-78 W-78
R-79 W-79
R-80 W-80
R-89 W-89
R-81 W-81
A-34
A-33
A-28
A-27
A-22
F-76
F-77
F-78
F-73
F-74
F-75
0.005
0.05
0.5
5.0
50
500

DRAFT

0 200 SCALE FEET

N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds July 2023 DSGN. BY:mr CHKD. BY:bh	2Q23 Dissolved Phase Benzene Concentrations in Groundwater	FIG. NO. 6


NORTH
A
MW-10
SECOND ST.
P-55R
A
B
THIRD ST.
4
E
F
ROST-4-PZ
MW-17
FOURTH ST.
MW-18
P-59
FIFTH ST.
MW-20
P-56
SIXTH ST.
MW-2
SEVENTH ST.
P-57
P-93
EIGHTH ST.
MW-7
SOUTH
A'
A B C D
T-12
MW-19
MW-21
GROUND SURFACE
ELEVATION (FEET NAVD 88)
440
430
420
410
400
390
380
370
350
320
402.62
403.99
403.40
403.06
402.85
402.84
402.89
402.06
402.09
401.99
401.92
401.89
401.85
401.86
401.90
401.93
401.99
401.99
401.96
401.98
402.05
402.12
0.00073 J mg/L
NOT SAMPLED
NOT SAMPLED
0.0016 /
0.0018 mg/L
NOT SAMPLED
1.2 mg/L
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
1.4 mg/L
NOT SAMPLED
0.00075 mg/L
0.00084 J mg/L
0.27 mg/L
NOT SAMPLED
0.00093 mg/L
890 /620
mg/L
400 mg/L
0.071 mg/L
<0.001 mg/L
LEGEND
STRATUM BOUNDARY ASSUMED
FILL PROJECTED BETWEEN POINTS (INCLUDES CINDERS, GRAVEL, CLAY, AND/OR SILTY CLAY)
CLAY PROJECTED BETWEEN POINTS (INCLUDES SILTY CLAY AND SANDY CLAY)
SILT PROJECTED BETWEEN POINTS (INCLUDES SANDY SILT AND CLAYEY SILT)
SAND PROJECTED BETWEEN POINTS (INCLUDES SILTY SAND AND CLAYEY SAND)
WELL SCREEN
WATER LEVEL
POTENTIOMETRIC SURFACE – ESTIMATED
1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 2023 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 3-5, 2023.
3. THIS GEOLOGIC CROSS-SECTION IS PRIMARILY BASED ON THE INTERPRETATION OF CPT DATA AND BORING LOGS DEVELOPED DURING OTHER DRILLING TECHNIQUES (E.G. AUGER AND GEOPROBE) COLLECTED BY AECOM SINCE 2006. LITHOLOGY WAS PROJECTED BETWEEN SUBSURFACE INVESTIGATION POINTS.
4. MONITORING WELLS SHOWN ON THE KEY MAP ARE PROJECTED ONTO THIS CROSS-SECTION TO DISPLAY CONCENTRATION DATA.
5. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g. <0.001 mg/L).
6. MULTIPLE RESULTS (890 / 620) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
7. J = THE RESULT IS ESTIMATED.
FIRST ST
SECOND ST
THIRD ST
FOURTH ST
VILLAGE OF ROXANA
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
CHAFFEE AVE
WOOD RIVER REFINERY
NORTH FRIDERICY
MW-10
P-55R
ROST-4-PZ (A)
ROST-4-PZ-(B)
ROST-4-PZ-
ROST-4-PZ-(E)
ROST-4-PZ-(F)
MW-17
T-12
MW-18
MW-19
P-59
MW-20
P-56
MW-2
MW-21
P-57
P-93A
P-93B
P-93C
P-93D
MW-7
N
KEYMAP
NOT TO SCALE
0
10
VERTICAL SCALE FEET
0
100
APPROXIMATE HORIZONTAL SCALE FEET
EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS
PROJECT NO.
60697537
AECOM
DRN. BY:gds July| 2023
DSGN. BY: mr
CHKD. BY: bh
2023 Cross-Section of Benzene Groundwater Analytical Results-Chaffer Avenue
FIG. NO.
7

CROSS SECTION LINE - SOME FEATURES HAVE BEEN PROJECTED

WEST B — B' EAST

(S. CENTARL AVE) HIGHWAY 111 | MW-6D | MW-6C | MW-6B | MW-6A | SVE-27 | MW-7 | EIGHTH ST | P-93A | P-93B | P-93C | P-93D | T-6 | SEVENTH ST

GROUND SURFACE

ELEVATION FEET NAVD 88

440 / 420 / 400 / 380 / 360 / 340 / 320 / 300

402.56 | 402.49 | 402.52 | 402.53 | 402.12 | 401.99 | 401.96 | 401.98 | 402.05 | 401.88

0.00038 J / 0.00038 J mg/L

890 / 620 mg/L

0.00093 J mg/L

NOT SAMPLED

<0.001 mg/L

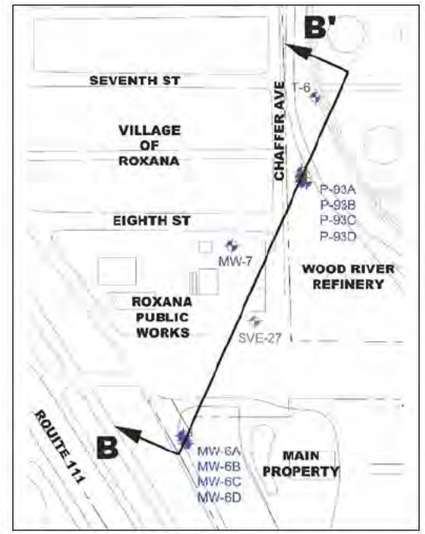
400 mg/L

0.00025 J mg/L

0.071 mg/L

0.0008 J mg/L

<0.001 mg/L



KEYMAP
NOT TO SCALE

LEGEND

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

VERTICAL SCALE 0 20 FEET

HORIZONTAL SCALE 0 100 FEET

NOTES:

1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 2Q23 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 3-5, 2023.
3. THIS GEOLOGIC 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 SHALLOWER/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.
7. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g. <0.001 mg/L).
8. MULTIPLE RESULTS (890 / 620) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
9. J = THE RESULT IS ESTIMATED.

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60697537
AECOM	
DRN. BY:gds July 2023 DSGN. BY:mr CHKD. BY:bh	2Q23 Cross-Section of Benzene Groundwater Analytical Results-Roxana Public Works Yard
	FIG. NO. 8

File: C:\USERS\JORDAN.YECOM\DOS OS SERVICES - DS CAD PROJECTS\DOS AMERICAS\SHELL\ILLINOIS\60697686-ROD_S_CENTRAL_AVE-ROXANA-1\ROXANA 2023 GW RPT\PART II\WORKSPACE\FIGURE 8 2023 TYP X-SECT W_BENZENE GW ANAL RSLTS-HWY111-CWFTDL.DWG Last edited: Jul. 05, 23 @ 3:45 PM by: lorente

Appendix A

Regulatory History

Appendix A

Regulatory History

The Interim Groundwater Monitoring Program (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 Equilon Enterprises LLC d/b/a Shell Oil Products US (SOPUS), Illinois Environmental Protection Agency (IEPA), and URS Corporation (URS) to discuss the Program and IEPA's general comments on the 4Q10 report. Subsequent report modifications were incorporated during 1st Quarter 2011 (1Q11) and 2nd Quarter 2011 (2Q11). Additional items and comments regarding the Program were presented by IEPA on June 16, 2011 (IEPA, 2011a) and August 31, 2011 (IEPA, 2011b) letters. These items and 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 were added to the Program in 2nd Quarter 2012 (2Q12).

In a second letter (CA-25) dated March 14, 2012 from IEPA to SOPUS (IEPA, 2012b), IEPA requested that perched groundwater be evaluated at groundwater monitoring piezometers P-60-12S, P-60-13S, ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ. These perched groundwater monitoring piezometers were incorporated into the Program beginning in 2Q12. In a letter dated August 16, 2013 (URS, 2013a), URS, on behalf of SOPUS, informed the IEPA of the determination that the perched groundwater monitoring piezometers are either dry, based on the criteria given in IEPA's March 14, 2012 letter, or not able to be sampled per the groundwater sampling standard operating procedure (SOP) due to slow recharge. The IEPA, during phone conversations, requested that certain piezometers remain in the Program. In response to this request, a letter dated January 14, 2014 was submitted to IEPA (URS, 2014a), stating that these piezometers will remain in the Program. A separate letter dated January 14, 2014 was submitted to the IEPA (URS, 2014b), requesting removal of ROST-5-PZ and ROST-10-PZ based on Condition 8(a) of the March 14, 2012 IEPA letter (CA-25), which states that ROST-5-PZ and ROST-10-PZ must remain within the Program for one year before the determination is made that these wells are dry. IEPA responded to the August 16, 2013 and both January 14, 2014 letters in a correspondence dated July 27, 2016 (IEPA, 2016a). In the July 27, 2016 letter, IEPA approved the request to abandon perched wells P-60-12S, P-60-13S, ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ and remove them from the Program. Abandonment activities were conducted on September 15, 2016.

In the March 14, 2012 letter (CA-25), IEPA also requested the installation of groundwater monitoring wells in the Village of Roxana (Village) to evaluate potential light non-aqueous phase liquid (LNAPL). These groundwater monitoring wells (MW-16 through MW-22 and MW-24) were installed during 4th Quarter 2012 (4Q12) and incorporated into the Program beginning in 1st Quarter 2013 (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 Roxana site and WRR LNAPL map.

In an April 8, 2013 letter from IEPA to SOPUS (IEPA, 2013a), IEPA requested a discussion of irregular potentiometric contours in the ROST-4-PZ area and P-60 area wells. This response was submitted to the IEPA in a letter dated July 29, 2013 (URS, 2013b). In a letter dated July 27, 2016 (IEPA, 2016b), IEPA approved the July 29, 2013 letter with the following conditions and modifications:

- Address the potentiometric high in the northern portion of the Study Area, by submitting a proposal within 120 days, which at a minimum will include:
    - A proposal to install nested wells that will track the area of the low-permeability zone.
    - The nested wells must be adequate to verify groundwater quality, flow direction, and hydraulic gradient, and these wells should show that pumping overcomes potential radial flow.
- A text section must be added to the Program quarterly reports to provide a detailed discussion of the potentiometric surface in this area.

AECOM responded to the July 27, 2016 letter in a letter dated October 14, 2016 (AECOM, 2016c). A response to this letter is pending as of the date of this report.

In a July 18, 2013 letter from IEPA to SOPUS (IEPA, 2013b), IEPA approved a change in gauging frequencies for wells in the Program. The list of wells to be gauged on a weekly basis was reduced and a new list of wells to be gauged on a monthly basis was initiated. This letter also requested that any free-phase hydrocarbon (FPH) and photoionization detector (PID) data collected at the well heads be included in the quarterly groundwater monitoring reports. The modified gauging frequencies for wells began the week of July 22, 2013. The list of wells gauged during each routine event is reviewed on a regular basis and modified to meet the conditions requested by the IEPA. The additional reporting requirements were first incorporated in the 3rd Quarter 2013 (3Q13) report.

In a June 13, 2014 letter from IEPA to SOPUS (IEPA, 2014a), IEPA requested the installation of four groundwater monitoring wells in the Village to monitor the extent and effectiveness of corrective action efforts within the residential area. The access agreement with the Village was signed on August 12, 2014, and well installation began in September 2014 and was completed in October 2014. These groundwater monitoring wells (MW-25 through MW-28) were added to the Program in 4th Quarter 2014 (4Q14).

In an October 9, 2014 letter from IEPA to SOPUS (IEPA, 2014b), IEPA approved the installation plan for a groundwater monitoring well located on BP property with certain conditions and modifications. Well MW-23 was installed during January 2015 and was added to the Program in 1st Quarter 2015 (1Q15).

In a letter dated November 25, 2014 (IEPA, 2014c), IEPA approved the proposed plan for groundwater corrective action (submitted to IEPA on November 14, 2013 (URS, 2013c)), with the following conditions:

- The 1Q15 groundwater samples obtained from: (1) the current monitoring well network; (2) the four new wells required by the modified Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Post-Closure Permit (Permit) at the WRR, issued September 23, 2010 (modified December 20, 2019) (IEPA, 2010b); and (3) the new well required by the October 9, 2014, letter must be used in a demonstration to verify the extent of groundwater contamination has been delineated; or

- If SOPUS cannot define the extent of contamination, a proposal for additional investigation must be submitted.

On December 5, 2014, a letter was submitted to IEPA by URS (URS, 2014c), on behalf of SOPUS, requesting a reduction in the routine gauging performed as part of the Program. In a letter dated August 2, 2017 (IEPA, 2017), IEPA approved the December 5, 2014 request to reduce the frequency of routine gauging from weekly/monthly to quarterly with the following condition:

- Groundwater monitoring wells ROST-4-PZ(E) and ROST-4-PZ(G) must be added to the list of wells sampled quarterly for groundwater quality. These monitoring wells were added to the sampling portion of the Program in 4th Quarter 2017.

On April 16, 2015, AECOM, on behalf of SOPUS, submitted a demonstration to verify the extent of groundwater contamination has been delineated (AECOM, 2015). The demonstration is based on monitoring data from wells in the Roxana Program. Additional information was submitted to IEPA in a letter dated January 29, 2016 (AECOM, 2016a). In a letter dated February 23, 2016 (IEPA, 2016c), IEPA agreed with this determination and required a Groundwater Management Zone (GMZ) proposal be submitted within 90 days. The GMZ proposal was submitted by AECOM, on behalf of SOPUS, on May 19, 2016 (AECOM, 2016b). IEPA provided comments via email in October 2017; AECOM responded to IEPA comments on January 2, 2018 (AECOM, 2018a). Meetings with SOPUS, AECOM

and IEPA representatives were held on April 5, 2018 and July 19, 2018 in order to provide additional information regarding the proposed GMZ. On September 26, 2018, AECOM, on behalf of SOPUS, submitted *Groundwater Management Zone – Additional Information* to present information requested via email dated September 5, 2018 (AECOM, 2018b).

In a letter dated May 22, 2015, IEPA provided approval for the April 3, 2013, Groundwater Monitoring Well and Vapor Monitoring Point Installation Report (IEPA, 2015).

In a meeting on April 5, 2018, IEPA verbally requested that benzene concentration trend plots for selected monitoring wells be incorporated into Roxana Program quarterly reports. This information is discussed in **Section 3** of the Program quarterly report. These trend plots were first included with the 2nd Quarter 2018 (2Q18) monitoring report.

On October 25, 2019, IEPA approved the Roxana Groundwater Ordinance for use as an institutional control in accordance with Title 35 of the Illinois Administrative Code Part 742 (35 IAC 742) to restrict access to groundwater (IEPA, 2019).

SOPUS's current Resource Conservation and Recovery Act (RCRA) Permit at the WRR was issued by IEPA on September 23, 2010 and expired October 28, 2020 (IEPA, 2010b). A Permit renewal application was submitted to IEPA on April 29, 2020 in accordance with Condition VI(B)(6) of the Permit and a letter from IEPA dated November 6, 2019. A timely filing of the renewal application was made and, therefore the conditions of the Permit are stayed. On June 30, 2020, IEPA issued a Notice of Incompleteness letter after conducting a completeness review of the Permit renewal application (IEPA, 2020a); AECOM submitted the Permit Application Completeness Response to IEPA on September 4, 2020 (AECOM, 2020a). IEPA issued a letter on October 30, 2020 indicating they have determined the application to be complete (IEPA, 2020b).

On October 12, 2020, AECOM, on behalf of SOPUS, requested a Class 1* Permit Modification (AECOM, 2020b) in response to an IEPA issued letter dated December 20, 2019. The December 20, 2019 letter issued approval and comments related to several Hazardous Waste Management Post-Closure Permit (Permit) Modifications requests and included a modified Permit. The letter included a condition requesting the installation of a new B-level groundwater monitoring well to be added to the Roxana Interim Groundwater Monitoring Program to intercept potential groundwater contamination observed at P-93B. The October 12th AECOM response indicated the B-level impact observed in P-93B has been delineated to the west and, therefore the installation of a new groundwater monitoring well does not appear to be necessary at this time and as such is not proposed.

A conference call was held on June 24, 2021 and included representatives of IEPA, SOPUS and AECOM. The primary purpose of the call was to introduce new team members and have a high-level discussion of the Program.

During an October 14, 2021 conference call among representatives of IEPA, SOPUS and AECOM, a high-level technical discussion of the Program was presented, primarily focused on routine monitoring activities and to introduce the potential impact observed from the Buckeye pipeline release.

On March 18, 2022, AECOM, on behalf of Shell, submitted Additional Information Supplemental to the Proposed Groundwater Management Zone in response to phone conversations with IEPA in December 2021 through February 2022 (AECOM, 2022b).

On August 22, 2022, IEPA approved with conditions the Public Works Yard (PWY) Steam Enhanced Extraction (SEE) Workplan. The PWY SEE Workplan was submitted to IEPA on January 31, 2022, and provided the system design as well as the plan and schedule for construction, operation, post-shutdown monitoring, and decommissioning for the proposed SEE system at the Roxana old PWY.

- In a September 21, 2022 meeting attended by AECOM, Shell, McMillan-McGee, and IEPA, comments pertaining to the IEPA's August 22, 2022 letter were discussed, including additional PWY sampling.

On October 12, 2022, AECOM, on behalf of Shell, requested the due date for the 4th Quarter 2022 (4Q22) Report for the Roxana Interim Groundwater Monitoring Program be pushed back approximately two weeks to January 30, 2023 from January 15, 2023. The modified due date was proposed to allow for a two-week delayed start to sampling

during the 4Q22 groundwater event to avoid simultaneous operations at the WRR. The 4Q22 Roxana Interim Groundwater Monitoring Report hardcopy was mailed to IEPA on January 27, 2023, and was submitted electronically on January 30, 2023.

Condition 2 of IEPA's August 22, 2022 letter stated that a Roxana Public Works Yard (PWY) Steam Enhanced Extraction (SEE) - Final Design Report and Construction Work Plan (FDRCWP) was due within 90 days of the date of the letter (i.e. November 20, 2022). On October 14, 2022, AECOM, on behalf of Shell, requested the due date for the FDRCWP be extended to December 20, 2022 to allow for adequate preparation.

On December 16, 2022, AECOM, on behalf of Shell, submitted the Roxana PWY SEE – FDRCWP (2022d) to IEPA in fulfillment of Phase II of the Corrective Measures Program (CMP); the Roxana PWY SEE – FDRCWP describes the additional sampling discussed in the September 21, 2022 meeting that will be collected prior to, and during, the construction of the SEE system. The Roxana PWY SEE – FDRCWP responded to conditions in IEPA's August 22, 2022 letter.

On January 30, 2023, AECOM, on behalf of Shell, submitted Additional Information to Log No. B-43R-CA-109 (PWY SEE – Response to 8/22/22 Letter & FDRCWP) (AECOM, 2023) in response to questions and specific requests by IEPA during a virtual discussion on January 5, 2023, to help facilitate IEPA review and respond to the Roxana Public Works Yard (PWY) Steam Enhanced Extraction (SEE) – Final Design Report and Construction Work Plan (FDRCWP) (AECOM, 2022d). The PWY SEE FDRCWP was submitted to IEPA by AECOM, on behalf of Shell, on December 16, 2022 to satisfy Phase II of the Corrective Measures Program (CMP) and respond to conditions in IEPA's August 22, 2022 letter. The IEPA August 22, 2022 letter approved, with conditions, the PWY SEE Workplan, which was submitted to IEPA by AECOM, on behalf of Shell, on January 31, 2022. A meeting on September 21, 2022 was held with AECOM, Shell, McMillan-McGee and IEPA to discuss comments pertaining to IEPA's August 22, 2022 letter, including additional PWY sampling.

On January 30, 2023, AECOM, on behalf of Shell, also submitted the Application for Water Pollution Control Permit to IEPA for the PWY SEE system. This was submitted after receipt of IEPA's July 11, 2022 contained-in concurrence letter. On March 2, 2022, AECOM, on behalf of Shell, submitted the Contained-In Determination Request Form to IEPA that was inadvertently left out of the Contained-In Determination submitted February 21, 2022. The February 21, 2022 Contained-In Determination stated groundwater generated during operation of the proposed SEE system is expected to no longer contain hazardous waste after treatment.

On February 23, 2023, AECOM, on behalf of Shell, submitted the Former Public Works Yard Class V Injection Well Inventory Form for the PWY SEE system.

On April 4, 2023, IEPA approved with conditions the PWY Construction and Operation of Steam Enhanced Extraction Pretreatment System permit. The operational portion of this permit expires February 28, 2028.

On May 5, 2023, IEPA approved with conditions the PWY Final Design Report and Construction Work Plan (FDRCWP) for in-situ thermal remediation (ISTR), specifically Steam Enhanced Extraction (SEE), to reduce and remediate benzene as well as other VOCs present in the treatment target zone (TIZ) of SEE at the PWY.

Appendix B

Low Flow Groundwater Sampling Data Sheets

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: Mmassa Tjenkins

DATE: 4/6/23 WEATHER: Mostly cloudy 45°

MONITORING WELL ID: MW-1 SAMPLE ID: MW1 - ROX - 040623

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 53.80 ft btoc	Volume of Flow Through Cell : 320* mL	
Total Well Depth (btoc): 59.13 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 41.03 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft			
Depth to Top of Screen (btoc): 48.80 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 18.10 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1036	41.04	clear	none	15.4	1.11	0.871 mS/cm uS/cm	6.76	85.79	23.85
300	1037	41.04			15.4	0.93	0.873 mS/cm uS/cm	6.77	81.37	21.64
600	1038	41.05			15.4	0.82	0.875 mS/cm uS/cm	6.79	77.07	20.17
900	1039	41.06			15.6	0.75	0.874 mS/cm uS/cm	6.80	72.83	18.32
1200	1040	41.06			15.8	0.70	0.875 mS/cm uS/cm	6.81	68.96	17.91
1500	1041	41.06			15.7	0.67	0.877 mS/cm uS/cm	6.82	65.91	16.85
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MW1 4/6/23

Start Time: 1036 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1041 Average Purge Rate (mL/min): 300 Date Calibrated: 4/6/23

SAMPLING DATA

Sample Date: 4/6/23 Sample Time: 1045 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MINASSA TJENKINS

DATE: 4-18-23 WEATHER: CLEAR 49°

MONITORING WELL ID: MW-2 SAMPLE ID: MW2-ROX-041823

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 54.87 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 60.20 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.96 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 49.87 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 147.3 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 18.24 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
	STABLE: (over 4 readings)				Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	0904	41.96	Clear	Mod. HC	15.8	1.70	0.904 mS/cm uS/cm	6.72	-30.52	16.28
300	0910	41.96			16.0	1.43	0.904 mS/cm uS/cm	6.77	-49.02	15.97
600	0911	41.96			16.0	1.27	0.905 mS/cm uS/cm	6.80	-62.30	13.49
900	0912	↓			16.1	1.13	0.904 mS/cm uS/cm	6.84	-74.83	12.64
1200	0913				16.2	1.04	0.902 mS/cm uS/cm	6.86	-81.79	12.31
1500	0914				16.2	0.98	0.904 mS/cm uS/cm	6.87	-87.44	11.42
1800	0915				16.3	0.92	0.903 mS/cm uS/cm	6.89	-93.00	10.75
2100	0916	↓	↓	↓	16.3	0.88	0.903 mS/cm uS/cm	6.90	-97.71	9.86
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/18/23

Start Time: 0909 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS - 49337/42859

Stop Time: 0916 Average Purge Rate (mL/min): 300 Date Calibrated: 4/18/23

SAMPLING DATA

Sample Date: 4-18-23 Sample Time: 0920 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: J. Mayer T. Jenkins

DATE: 4-17-2023 WEATHER: 52° Clear

MONITORING WELL ID: MW-3 SAMPLE ID: MW3-ROX-041723

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 39.67 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 45.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): ~~7.8.02~~ 28.02 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NF ft		
Depth to Top of Screen (btoc): 34.67 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 16.98 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1040	28.02	Clear	Slight	14.9	3.37	1.339 mS/cm uS/cm	6.94	-113.9	4.73
1500	1045	↓	↓	↓	15.6	1.01	1.440 mS/cm uS/cm	6.97	-128.2	2.31
1800	1046				15.6	0.92	1.440 mS/cm uS/cm	6.97	-129.7	2.22
2100	1047				15.7	0.85	1.443 mS/cm uS/cm	6.98	-131.2	2.20
2400	1048				15.8	0.80	1.445 mS/cm uS/cm	6.98	-132.6	2.25
2700	1049				15.9	0.76	1.444 mS/cm uS/cm	6.98	-133.8	1.92
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4-17-23

Start Time: 1040 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS -- 19337/12859

Stop Time: 1049 Average Purge Rate (mL/min): 300 Date Calibrated: 4-17-23

SAMPLING DATA

Sample Date: 4-17-23 Sample Time: 1100 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: ~~MS/MSD~~ DUP

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MM ASSA T JENKINS

DATE: 4/7/23 WEATHER: MOSTLY CLOUDY 44°

MONITORING WELL ID: MW-4 SAMPLE ID: MW4-ROX-040723

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 50.66 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 55.39 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.47 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 45.06 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.2 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 15.92 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0927	39.48	Slightly cloudy	None	14.6	1.26	1.108 mS/cm uS/cm	6.78	−62.33	89.25
300	0928	39.48	↓	↓	14.8	1.02	1.055 mS/cm uS/cm	6.86	−80.27	73.17
600	0929	39.48	↓	↓	14.8	0.88	1.063 mS/cm uS/cm	6.90	−92.48	58.62
900	0930	↓	Clear	↓	14.9	0.79	1.044 mS/cm uS/cm	6.94	−100.48	46.27
1200	0931	↓	↓	↓	15.0	0.72	1.029 mS/cm uS/cm	6.96	−106.49	39.98
1500	0932	↓	↓	↓	15.1	0.68	1.019 mS/cm uS/cm	6.98	−111.31	31.65
1800	0933	↓	↓	↓	15.0	0.65	1.014 mS/cm uS/cm	7.00	−114.56	28.87
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/7/23

Start Time: 0927 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 49337/42859

Stop Time: 0933 Average Purge Rate (mL/min): 300 Date Calibrated: 4/7/23

SAMPLING DATA

Sample Date: 4/7/23 Sample Time: 0935 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: J. Mayer - T. Jenkins

DATE: 4-14-23 WEATHER: 72° Clear

MONITORING WELL ID: MW-5 SAMPLE ID: MW5-ROX-041423

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.97 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 44.30 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): ~~27.63~~ ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NF ft		
Depth to Top of Screen (btoc): 33.97 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 16.67 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
					STABLE: (over 4 readings)	Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	0945	27.64	Clear	Slight	17.7	3.06	1.199 mS/cm uS/cm	6.46	-41.1	4.25
3000	0955	↓	↓	↓	18.3	0.60	1.178 mS/cm uS/cm	6.72	-108.1	4.00
3300	0956				18.2	0.57	1.178 mS/cm uS/cm	6.73	-110.6	4.65
3600	0957				18.2	0.54	1.177 mS/cm uS/cm	6.74	-113.2	4.15
3900	0958				18.2	0.53	1.176 mS/cm uS/cm	6.75	-114.5	4.04
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4-14-23

Start Time: 0945 Elapsed Time (min): 13 Water Quality Meter ID & SN: YSI ProDSS .. 49337 / 428359

Stop Time: 0958 Average Purge Rate (mL/min): 300 Date Calibrated: 4-14-23

SAMPLING DATA

Sample Date: 4-14-23 Sample Time: 1000 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 3900 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/11/23 WEATHER: clear 69°

MONITORING WELL ID: MW-6A SAMPLE ID: MW6A-ROX-041123

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.85 ft btoc	Volume of Flow Through Cell : 320* mL	
Total Well Depth (btoc): 44.18 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 29.89 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft			
Depth to Top of Screen (btoc): 33.85 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 14.29 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1104	29.91	clear	none	19.2	0.77	0.980 mS/cm uS/cm	6.79	-57.22	108.05
300	1105	29.91	↓	↓	19.4	0.77	0.978 mS/cm uS/cm	6.74	-59.34	102.49
600	1106	29.91	↓	↓	19.3	0.65	0.978 mS/cm uS/cm	6.79	-61.77	57.23
900	1107	↓	↓	↓	19.4	0.60	0.976 mS/cm uS/cm	6.79	-64.37	54.03
1200	1108	↓	↓	↓	19.3	0.58	0.976 mS/cm uS/cm	6.80	-66.90	47.12
1500	1109	↓	↓	↓	19.4	0.60	0.980 mS/cm uS/cm	6.80	-69.16	43.52
1800	1110	↓	↓	↓	19.5	0.59	0.981 mS/cm uS/cm	6.88	-71.28	38.48
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/11/23

Start Time: 1104 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1110 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/23

SAMPLING DATA

Sample Date: 4/11/23 Sample Time: 1115 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: DUP

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/11/23 WEATHER: clear 72°

MONITORING WELL ID: MW-6B SAMPLE ID: MW6B-BOX-04/11/23

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 60.55 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 69.38 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 29.91 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 64.05 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 39.47 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1202	29.95	clear	none	19.1	0.58	0.740 mS/cm uS/cm	7.28	-96.44	2.15
300	1204	29.95			19.0	0.56	0.743 mS/cm uS/cm	7.23	-98.96	2.10
600	1205	29.95			18.9	0.55	0.743 mS/cm uS/cm	7.29	-101.24	1.26
900	1206	↓			19.0	0.53	0.744 mS/cm uS/cm	7.29	-102.94	0.96
1200	1207		↓		19.0	0.51	0.744 mS/cm uS/cm	7.29	-105.08	0.52
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1203 Elapsed Time (min): Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1207 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/23

SAMPLING DATA

Sample Date: 4/11/23 Sample Time: 1210 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/11/23 WEATHER: clear 64°

MONITORING WELL ID: MW-6C SAMPLE ID: MW6C-ROX-041123

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 87.45 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 90.28 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 29.72 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 84.95 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 60.56 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings; Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1004	29.78	clear	none	17.7	1.48	0.692 mS/cm uS/cm	7.21	-58.22	2.33
300	1005	29.78			17.7	1.07	0.704 mS/cm uS/cm	7.19	-72.17	3.13
600	1006	29.78			17.7	0.88	0.714 mS/cm uS/cm	7.20	-91.03	2.76
900	1007				17.8	0.79	0.723 mS/cm uS/cm	7.21	-99.56	1.92
1200	1008				17.8	0.72	0.735 mS/cm uS/cm	7.22	-106.58	0.96
1500	1009				17.8	0.68	0.745 mS/cm uS/cm	7.23	-111.97	0.75
1800	1010				17.8	0.63	0.755 mS/cm uS/cm	7.24	-116.11	0.00
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/11/23

Start Time: 1004 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1010 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/23

SAMPLING DATA

Sample Date: 4/11/23 Sample Time: 1015 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: M MASSA T JENKINS

DATE: 4/11/23 WEATHER: CLEAR 65°

MONITORING WELL ID: MW-6D SAMPLE ID: MW6D - ROX - 041123

INITIAL DATA

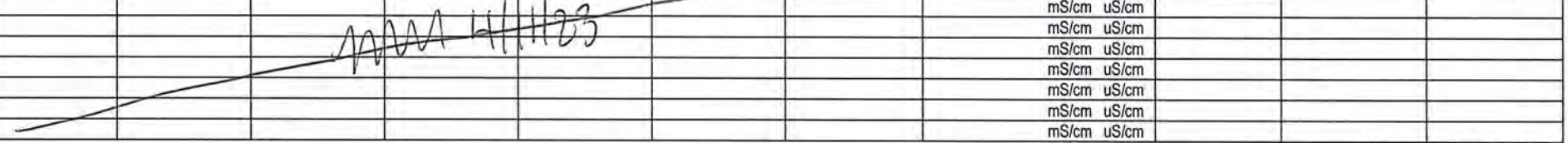
Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 107.22 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 110.05 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 29.59 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 104.72 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 80.46 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0905	29.60	clear	none	17.1	0.74	1.250 mS/cm uS/cm	7.03	-97.71	4.74
300	0906	29.60			17.1	0.72	1.254 mS/cm uS/cm	7.03	-100.39	3.92
600	0907	29.60			17.1	0.68	1.263 mS/cm uS/cm	7.05	-106.11	3.14
900	0908				17.1	0.64	1.272 mS/cm uS/cm	7.06	-110.16	2.25
1200	0909				17.1	0.61	1.278 mS/cm uS/cm	7.07	-113.39	2.20
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			



Start Time: 0905 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 0909 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/23

SAMPLING DATA

Sample Date: 4/11/23 Sample Time: 0915 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: M

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/7/23 WEATHER: partly cloudy 52°

MONITORING WELL ID: MW-7 SAMPLE ID: MW7-ROX-040723

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 47.92 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 52.92 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.44 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 42.92 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.3 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11.48 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1145	41.45	clear	Slight HC	15.9	0.67	1.161 mS/cm uS/cm	6.79	-64.90	2.31
300	1146	41.45			16.2	0.58	1.159 mS/cm uS/cm	6.79	-68.94	2.85
600	1147	41.45			16.1	0.54	1.161 mS/cm uS/cm	6.79	-71.07	3.00
900	1148	↓			16.1	0.52	1.160 mS/cm uS/cm	6.79	-73.53	3.65
1200	1149	↓	↓	↓	16.2	0.49	1.157 mS/cm uS/cm	6.80	-75.94	3.52
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1145 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 49337/13859

Stop Time: 1149 Average Purge Rate (mL/min): 300 Date Calibrated: 4/7/23

SAMPLING DATA

Sample Date: 4/7/23 Sample Time: 1155 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: DUP

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/10/23 WEATHER: partly cloudy 51°

MONITORING WELL ID: MW-9 SAMPLE ID: MW9-POX-041023

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 51.04 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 56.37 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 42.76 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 46.04 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 13.61 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0858	42.76	Clear	none	15.5	1.03	1.112 mS/cm uS/cm	6.91	-40.76	4.75
320	0859	42.76			15.7	0.38	1.026 mS/cm uS/cm	6.94	-51.29	4.90
640	0900	42.76			15.9	0.77	0.9996 mS/cm uS/cm	6.96	-60.25	4.58
960	0901				16.1	0.72	0.989 mS/cm uS/cm	6.97	-66.00	4.98
1280	0902				16.1	0.68	0.986 mS/cm uS/cm	6.98	-70.20	3.67
1500	0903	↓	↓	↓	16.1	0.63	0.981 mS/cm uS/cm	6.99	-73.35	3.87
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMA 4/10/23

Start Time: 0858 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 0903 Average Purge Rate (mL/min): 300 Date Calibrated: 4/10/23

SAMPLING DATA

Sample Date: 4/10/23 Sample Time: 0905 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/6/23 WEATHER: Mostly Cloudy 47°

MONITORING WELL ID: MW-10 SAMPLE ID: MW10-ROX-040623

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 49.43 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 54.76 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 42.75 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 44.43 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.01 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1158	42.80	Slightly cloudy	none	15.4	1.06	1.440 mS/cm uS/cm	6.88	-77.85	64.95
300	1159	42.78			15.6	0.91	1.439 mS/cm uS/cm	6.90	-85.99	58.44
600	1200	42.75			15.7	0.81	1.442 mS/cm uS/cm	6.92	-92.51	59.71
900	1201	42.75			15.8	0.74	1.442 mS/cm uS/cm	6.93	-97.50	53.03
1200	1202	42.75			15.8	0.69	1.444 mS/cm uS/cm	6.94	-101.73	49.29
1500	1203				16.0	0.65	1.443 mS/cm uS/cm	6.95	-105.76	41.19
1800	1204				16.0	0.62	1.444 mS/cm uS/cm	6.96	-108.22	37.42
2100	1205				16.0	0.60	1.444 mS/cm uS/cm	6.96	-110.43	35.12
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/6/23

Start Time: 1158 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 19B37/42859

Stop Time: 1205 Average Purge Rate (mL/min): 300 Date Calibrated: 4/6/23

SAMPLING DATA

Sample Date: 4/6/23 Sample Time: 1210 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/6/23 WEATHER: Mostly cloudy 50°

MONITORING WELL ID: MW-11 SAMPLE ID: MW11-ROX-040623

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 46.66 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 51.99 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.31 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 41.66 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11.68 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1312	40.34	CLEAR	NONE	14.3	1.61	1.335 mS/cm uS/cm	6.80	-17.89	39.60
300	1313	40.34			14.5	1.21	1.340 mS/cm uS/cm	6.79	-23.27	32.35
600	1314	40.34			14.5	1.02	1.341 mS/cm uS/cm	6.78	-27.59	29.52
900	1315				14.8	0.89	1.329 mS/cm uS/cm	6.78	-31.26	27.63
1200	1316				15.0	0.79	1.339 mS/cm uS/cm	6.78	-34.77	25.75
1500	1317				15.2	0.73	1.336 mS/cm uS/cm	6.78	-37.79	24.70
1800	1318				15.2	0.67	1.335 mS/cm uS/cm	6.78	-40.26	22.76
2100	1319				15.4	0.63	1.331 mS/cm uS/cm	6.78	-42.83	21.00
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/6/23

Start Time: 1312 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1319 Average Purge Rate (mL/min): 300 Date Calibrated: 4/6/23

SAMPLING DATA

Sample Date: 4/6/23 Sample Time: 1325 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/7/23 WEATHER: partly cloudy 57°

MONITORING WELL ID: MW-12 SAMPLE ID: MW12-ROX-040723

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 46.92 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 52.25 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.69 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 41.92 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11.19 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
STABLE: (over 4 readings)					Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1328	40.75	clear	none	16.0	0.91	0.921 mS/cm uS/cm	6.99	46.90	11.24
300	1329	40.75			16.1	0.79	0.919 mS/cm uS/cm	6.98	46.37	10.65
600	1330	40.75			16.2	0.72	0.916 mS/cm uS/cm	6.98	46.01	10.15
900	1331	↓			16.3	0.65	0.915 mS/cm uS/cm	6.97	45.33	9.54
1200	1332				16.4	0.60	0.914 mS/cm uS/cm	6.97	44.99	8.24
1500	1333		↓	↓	16.4	0.59	0.913 mS/cm uS/cm	6.97	44.80	8.22
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/7/23

Start Time: 1328 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 19J337/12859

Stop Time: 1333 Average Purge Rate (mL/min): 300 Date Calibrated: 4/7/23

SAMPLING DATA

Sample Date: 4/7/23 Sample Time: 1340 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: T. Jenkins J. Mayer

DATE: 4-13-23 WEATHER: 75° Partly Cloudy

MONITORING WELL ID: MW-13 SAMPLE ID: MW13-Rox-041323

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 35.05 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 27.65 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 31.85 ft btoc	Ambient PID/FID Reading: 0.1 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 24.80 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.1 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 8.40 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0944	27.65	Cloudy	Moderate	19.9	1.11	1.222 mS/cm uS/cm	6.76	-90.6	326.31
300	0945	↓	↓	↓	19.8	0.77	1.220 mS/cm uS/cm	6.76	-99.3	273.71
600	0946	↓	Clear	↓	19.9	0.68	1.218 mS/cm uS/cm	6.77	-102.2	241.10
900	0947	↓	↓	↓	19.9	0.64	1.205 mS/cm uS/cm	6.77	-104.1	218.74
2700	0953	↓	↓	↓	20.0	0.47	1.203 mS/cm uS/cm	6.77	-112.3	94.64
3000	0954	↓	↓	↓	20.0	0.46	1.203 mS/cm uS/cm	6.77	-113.2	81.42
3300	0955	↓	↓	↓	20.0	0.44	1.201 mS/cm uS/cm	6.77	-113.9	68.71
3600	0956	↓	↓	↓	20.1	0.44	1.200 mS/cm uS/cm	6.77	-114.4	59.89
3900	0957	↓	↓	↓	20.1	0.42	1.200 mS/cm uS/cm	6.77	-115.15	50.38
4200	0958	↓	↓	↓	20.1	0.41	1.200 mS/cm uS/cm	6.77	-115.7	44.06
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4-13-23

Start Time: 0944 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 49337/42859

Stop Time: 0958 Average Purge Rate (mL/min): 300 Date Calibrated: 4-13-23

SAMPLING DATA

Sample Date: 4-12-2023 Sample Time: 1000 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: SM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: ~~4200~~ 4200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/12/23 WEATHER: clear 61°

MONITORING WELL ID: MW-14 SAMPLE ID: MW14-ROX-041223

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.42 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 44.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 32.02 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 33.42 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 52.4 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.00 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
STABLE: (over 4 readings)					Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	0918	32.02	clear	slg none	17.2	1.00	1.055 mS/cm uS/cm	6.72	-60.00	3.79
300	0919	32.02			17.3	0.88	1.055 mS/cm uS/cm	6.70	-65.43	3.90
600	0920	32.02			17.5	0.79	1.056 mS/cm uS/cm	6.70	-71.01	4.09
900	0921				17.5	0.72	1.057 mS/cm uS/cm	6.72	-76.05	4.23
1200	0922				17.6	0.67	1.057 mS/cm uS/cm	6.73	-79.92	4.62
1500	0923				17.6	0.59	1.057 mS/cm uS/cm	6.75	-83.38	4.62
1800	0924				17.6	0.55	1.057 mS/cm uS/cm	6.75	-85.75	4.59
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MW 4/12/23

Start Time: 0918 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 0924 Average Purge Rate (mL/min): 300 Date Calibrated: 4/12/23

SAMPLING DATA

Sample Date: 4/12/23 Sample Time: 0930 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 308 QA/QCSamples: None

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MARISSA TJENKINS

DATE: 4/10/23 WEATHER: PARTLY CLOUDY 70°

MONITORING WELL ID: MW-16 SAMPLE ID: MW16-ROX-041023

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 47.75 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.02 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.69 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 37.50 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 6.13 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1315	41.060	CLEAR	SLIGHT HC	17.3	1.09	0.817 mS/cm uS/cm	6.75	-49.82	40.55
300	1310	41.066	↓	↓	17.5	0.91	0.815 mS/cm uS/cm	6.74	-56.37	30.63
600	1317	41.066	↓	↓	17.7	0.80	0.815 mS/cm uS/cm	6.75	-62.10	26.20
900	1318	↓	↓	↓	17.7	0.74	0.814 mS/cm uS/cm	6.76	-67.07	21.41
1200	1319				17.7	0.68	0.813 mS/cm uS/cm	6.78	-71.32	23.16
1500	1320				18.0	0.65	0.812 mS/cm uS/cm	6.80	-75.03	19.61
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/10/23

Start Time: 1315 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1320 Average Purge Rate (mL/min): 300 Date Calibrated: 4/10/23

SAMPLING DATA

Sample Date: 4/10/23 Sample Time: 1325 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJENKINS

DATE: 4-18-23 WEATHER: CLEAR 55°

MONITORING WELL ID: MW-22 SAMPLE ID: MW22-ROX-041823

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 48.68 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.20 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.44 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 38.43 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 8.48 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	~~1007~~ 1017	40.20	CLEAR	SLIGHT HC	17.1	2.14	1.216 mS/cm uS/cm	6.85	-98.14	6.77
300	~~1013~~ 1013	40.20			17.2	1.62	1.216 mS/cm uS/cm	6.89	-106.18	6.34
600	~~1019~~ 1019	40.20			17.3	1.30	1.215 mS/cm uS/cm	6.92	-112.64	5.46
900	~~1020~~ 1020				17.3	1.19	1.215 mS/cm uS/cm	6.93	-115.33	5.18
1200	~~1021~~ 1021				17.3	1.06	1.214 mS/cm uS/cm	6.94	-118.25	5.11
1500	1022				17.2	0.98	1.213 mS/cm uS/cm	6.95	-120.38	4.75
1800	1023				17.2	0.91	1.213 mS/cm uS/cm	6.96	-122.22	7.33
2100	1024				17.4	0.86	1.210 mS/cm uS/cm	6.96	-123.64	8.27
2400	1025				17.4	0.83	1.210 mS/cm uS/cm	6.96	-125.00	7.68
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/18/23

Start Time: 1017 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1025 Average Purge Rate (mL/min): 300 Date Calibrated: 4-18-23

SAMPLING DATA

Sample Date: 4-18-23 Sample Time: 1030 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/12/23 WEATHER: Clear 76°

MONITORING WELL ID: MW-23 SAMPLE ID: MW23-ROX-041223

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 39.27 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 24.02 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 34.18 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 29.02 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 10.19 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1245	29.13	Slight Cloudy	none	18.2	0.74	0.929 mS/cm uS/cm	6.83	-88.40	92.5
300	1246	29.13			18.2	0.67	0.927 mS/cm uS/cm	6.83	-90.32	93.7
600	1247	29.13			18.3	0.60	0.926 mS/cm uS/cm	6.84	-93.86	90.3
900	1248				18.3	0.55	0.925 mS/cm uS/cm	6.85	-96.28	84.40
1200	1249				18.4	0.52	0.925 mS/cm uS/cm	6.85	-98.39	87.78
1500	1250				18.4	0.50	0.925 mS/cm uS/cm	6.85	-100.20	84.15
1800	1251				18.4	0.47	0.925 mS/cm uS/cm	6.85	-101.59	83.6
2100	1252		Clear		18.4	0.45	0.924 mS/cm uS/cm	6.85	-102.99	75.7
2400	1253				18.5	0.44	0.924 mS/cm uS/cm	6.85	-104.12	71.5
2700	1254				18.6	0.42	0.924 mS/cm uS/cm	6.84	-105.23	67.6
3000	1255				18.6	0.41	0.925 mS/cm uS/cm	6.84	-106.26	62.7
3300	1256				18.6	0.40	0.926 mS/cm uS/cm	6.84	-107.04	56.4
3600	1257				18.6	0.39	0.926 mS/cm uS/cm	6.84	-107.74	54.13
3900	1258				18.6	0.38	0.927 mS/cm uS/cm	6.84	-108.12	48.34
4200	1259				18.6	0.38	0.927 mS/cm uS/cm	6.83	-108.54	48.23
4500	1300				18.6	0.37	0.928 mS/cm uS/cm	6.83	-108.87	45.52

Start Time: 1245 Elapsed Time (min): 15 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1300 Average Purge Rate (mL/min): 300 Date Calibrated: 4/12/23

SAMPLING DATA

Sample Date: 4/12/23 Sample Time: 1305 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 4500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: J. Mayer ~~T. Jones~~ T. Jenkins JM

DATE: 4-13-2023 WEATHER: 84° Partly Cloudy

MONITORING WELL ID: MW-24 SAMPLE ID: MW24-ROX-041323

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 49.86 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.29 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 45.58 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 39.61 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 8.57 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1336	41.34	Clear	None	18.7	1.63	1.731 mS/cm uS/cm	6.85	-2.98	78.76
300	1337				18.8	1.40	1.733 mS/cm uS/cm	6.84	0.00	69.84
1200	1340				19.0	0.86	1.738 mS/cm uS/cm	6.86	5.0	38.64
1500	1341				19.1	0.78	1.740 mS/cm uS/cm	6.88	6.0	30.53
1800	1342				19.2	0.75	1.742 mS/cm uS/cm	6.90	6.6	25.96
2100	1343				19.1	0.69	1.748 mS/cm uS/cm	6.92	7.3	21.39
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4-13-23

Start Time: 1336 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1343 Average Purge Rate (mL/min): 300 Date Calibrated: 4-13-23

SAMPLING DATA

Sample Date: 4-13-23 Sample Time: 1350 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJENKINS

DATE: 4/7/23 WEATHER: partly cloudy 48°

MONITORING WELL ID: MW-25 SAMPLE ID: MW25-ROX-040723

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 45.84 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 36.61 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.23 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 35.59 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 40.5 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.23 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color (STABLE: over 4 readings)	Odor	Temp (°C) (Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1030	36.61	cloudy/brown	slight HC	16.1	0.74	0.774 mS/cm uS/cm	6.92	-86.52	108.15
300	1031	36.65	〃	〃	16.6	0.63	0.779 mS/cm uS/cm	6.93	-90.25	106.04
600	1032	36.65	〃	〃	16.7	0.56	0.790 mS/cm uS/cm	6.93	-94.23	99.17
900	1033	36.64	〃	〃	16.7	0.52	0.798 mS/cm uS/cm	6.94	-97.03	94.90
1200	1034	36.64	〃	〃	16.8	0.49	0.805 mS/cm uS/cm	6.95	-99.97	90.60
1500	1035	36.63	〃	〃	16.9	0.47	0.810 mS/cm uS/cm	6.95	-102.39	83.39
1800	1036	36.63	〃	〃	17.2	0.44	0.819 mS/cm uS/cm	6.95	-105.29	79.09
2100	1037	36.63	clearer	〃	17.2	0.42	0.830 mS/cm uS/cm	6.96	-108.10	70.91
2400	1038	〃	〃	〃	17.2	0.41	0.837 mS/cm uS/cm	6.97	-110.42	66.47
2700	1039	〃	〃	〃	17.0	0.40	0.843 mS/cm uS/cm	6.97	-112.15	61.63
3000	1040	〃	〃	〃	17.0	0.39	0.850 mS/cm uS/cm	6.98	-114.17	59.01
3300	1041	〃	〃	〃	17.0	0.39	0.853 mS/cm uS/cm	6.98	-115.35	54.26
3600	1042	〃	〃	〃	17.0	0.38	0.860 mS/cm uS/cm	6.99	-117.34	51.79
3900	1043	〃	〃	〃	17.2	0.37	0.862 mS/cm uS/cm	6.99	-118.89	48.06
4200	1044	〃	〃	〃	17.2	0.37	0.868 mS/cm uS/cm	6.99	-120.43	44.71
4500	1045	〃	〃	〃	17.0	0.36	0.878 mS/cm uS/cm	7.00	-122.35	41.97

Start Time: 1038 Elapsed Time (min): 15 Water Quality Meter ID & SN: YSI ProDSS - 49337/42859

Stop Time: 1045 Average Purge Rate (mL/min): 300 Date Calibrated: 4/7/23

SAMPLING DATA

Sample Date: 4/7/23 Sample Time: 1050 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: NONE

VOA Vials, No Headspace ☒ Initials: MMM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 4500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/10/23 WEATHER: partly cloudy 67°

MONITORING WELL ID: MW-26 SAMPLE ID: MW26-ROX-041023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 48.40 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.25 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.83 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 38.15 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.1 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): ~~54.65~~ ft 9.15	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1211	39.25	clear	none	17.8	1.36	1.234 (mS/cm) uS/cm	6.75	71.90	12.22
300	1212	39.25			17.7	1.04	1.235 (mS/cm) uS/cm	6.74	73.38	9.78
600	1213	39.25			17.8	0.85	1.227 (mS/cm) uS/cm	6.75	73.97	11.50
900	1214				17.9	0.75	1.236 (mS/cm) uS/cm	6.76	74.07	13.23
1200	1215				18.0	0.68	1.236 (mS/cm) uS/cm	6.77	73.62	12.65
1500	1216				18.1	0.64	1.237 (mS/cm) uS/cm	6.78	73.23	11.77
1800	1217				18.2	0.69	1.236 (mS/cm) uS/cm	6.80	72.70	10.65
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/10/23

Start Time: 1211 Elapsed Time (min): 60 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1217 Average Purge Rate (mL/min): 300 Date Calibrated: 4/10/23

SAMPLING DATA

Sample Date: 4/10/23 Sample Time: 1220 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/10/23 WEATHER: partly cloudy 57°

MONITORING WELL ID: MW-27 SAMPLE ID: MW27-ROX-041023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 50.04 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.72 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 45.33 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): ND ft		
Depth to Top of Screen (btoc): 39.79 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.32 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1030	40.40	slightly cloudy	none	16.3	1.104	0.756 ~~mS/cm~~ uS/cm	7.01	41.36	97.99
300	1031	40.91			16.4	0.94	0.752 ~~mS/cm~~ uS/cm	7.00	42.61	94.08
600	1032	40.91			16.4	0.86	0.751 ~~mS/cm~~ uS/cm	6.99	43.17	72.17
900	1033	40.91			16.5	0.80	0.750 ~~mS/cm~~ uS/cm	6.99	42.34	51.10
1200	1034				16.5	0.76	0.750 ~~mS/cm~~ uS/cm	6.99	43.25	42.53
1500	1035				16.5	0.72	0.749 ~~mS/cm~~ uS/cm	6.99	43.15	36.03
1800	1036				16.5	0.68	0.749 ~~mS/cm~~ uS/cm	6.99	43.04	30.41
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MW27 4/10/23

Start Time: 1030 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 49337/428591

Stop Time: 1036 Average Purge Rate (mL/min): 300 Date Calibrated: 4/10/23

SAMPLING DATA

Sample Date: 4/10/23 Sample Time: 1040 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: ~~MS/MSD~~ (M) NONE

VOA Vials, No Headspace ☑ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: J. Mayer T. Jenkins

DATE: 4-14-2023 WEATHER: 85° Clear

MONITORING WELL ID: MW-28 SAMPLE ID: MW28-ROX-041423

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc
Total Well Depth (btoc): 43.86 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.78 ft btoc
Depth to Water (btoc): 39.69 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to Top of Screen (btoc): 33.61 ft	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 4.17 ft	

Volume of Flow Through Cell : 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. — +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1240	39.70	Clear	None	19.1	1.94	1.468 mS/cm uS/cm	6.75	-10.2	34.23
1500	1245	39.73			19.4	0.88	1.476 mS/cm uS/cm	6.77	-39.3	13.25
1800	1246				19.3	0.84	1.480 mS/cm uS/cm	6.73	-43.3	10.69
2100	1247				19.2	0.80	1.484 mS/cm uS/cm	6.74	-46.7	9.50
2400	1248				19.1	0.77	1.484 mS/cm uS/cm	6.75	-49.3	8.15
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4-14-23

Start Time: 1240 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS - 49337/48759

Stop Time: 1248 Average Purge Rate (mL/min): 300 Date Calibrated: 4-14-2023

SAMPLING DATA

Sample Date: 4-14-2023 Sample Time: — Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace: ☒ Initials: SM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA Jenkins

DATE: 4/12/23 WEATHER: clear 71°

MONITORING WELL ID: P-54 SAMPLE ID: P54-ROX-041223

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 63.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.13 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 38.00 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 45.13 ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 22.87 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1128	40.20	Clear	none	19.2	2.29	1.314 ~~mS/cm~~ uS/cm	6.95	-18.46	2.53
300	1129	40.20	↓	↓	19.2	2.08	1.313 ~~mS/cm~~ uS/cm	6.93	-15.28	2.97
600	1130	40.20			19.4	1.99	1.311 ~~mS/cm~~ uS/cm	6.91	-12.71	3.32
900	1131	↓			19.5	1.98	1.303 ~~mS/cm~~ uS/cm	6.92	-10.89	3.60
1200	1132				19.6	2.01	1.307 ~~mS/cm~~ uS/cm	6.93	-9.22	3.67
1500	1133	↓	↓	↓	19.5	2.09	1.304 ~~mS/cm~~ uS/cm	6.94	-7.27	3.45
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/12/23

Start Time: 1128 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1133 Average Purge Rate (mL/min): 300 Date Calibrated: 4/12/23

SAMPLING DATA

Sample Date: 4/12/23 Sample Time: 1140 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: DUP

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TDENKENS

DATE: 4-20-23 WEATHER: Overcast 80°

MONITORING WELL ID: P-55R SAMPLE ID: —

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 50.68 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.36 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): 40.2 ft		
Depth to Top of Screen (btoc): 40.43 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 208.4 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 10.32 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. — +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

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

AWA 4/20/23

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: YSI ProDSS --

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

SAMPLING DATA

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

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

NS due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJENKINS

DATE: 4-20-23 WEATHER: OVERCAST 68°

MONITORING WELL ID: P56 SAMPLE ID: P56-ROX-042023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 65.82 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 44.45 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 40.82 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 49.45 ft btoc	Wellbore PID/FID Reading: 0.1 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 21.37 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
					STABLE: (over 4 readings)			+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	0913	44.44	Slight cloudy brown	Mod. HC	20.2	0.49	0.983 mS/cm uS/cm	6.87	-3.46	12.67
300	0914	44.44	↓	↓	20.4	0.43	0.985 mS/cm uS/cm	6.91	-9.72	11.22
600	0915	44.44	↓	↓	20.6	0.36	0.986 mS/cm uS/cm	6.94	-18.90	10.23
900	0916	↓	Clear	↓	20.7	0.32	0.989 mS/cm uS/cm	6.96	-25.81	9.18
1200	0917	↓	↓	↓	20.6	0.29	0.990 mS/cm uS/cm	6.98	-31.36	8.92
1500	0918	↓	↓	↓	20.7	0.26	0.990 mS/cm uS/cm	6.99	-36.37	9.45
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMA 4/20/23

Start Time: 0913 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS 29218/45720

Stop Time: 0918 Average Purge Rate (mL/min): 300 Date Calibrated: 4-20-23

SAMPLING DATA

Sample Date: 4-20-23 Sample Time: 0920 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-19-23 WEATHER: clear 66°

MONITORING WELL ID: P-57 SAMPLE ID: P57-ROX-041923

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 54.19 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 45.13 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 49.66 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 44.19 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 11.8 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.06 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0928	45.59	clear	Strong HC	19.2	0.52	0.983 mS/cm uS/cm	6.05	80.19	0.0
300	0929	45.63			19.4	0.43	0.982 mS/cm uS/cm	6.12	65.47	0.0
600	0930	45.63			19.5	0.36	0.984 mS/cm uS/cm	6.18	51.43	0.0
900	0931	45.67			19.6	0.31	0.984 mS/cm uS/cm	6.22	40.53	0.0
1200	0932	45.67			19.6	0.28	0.985 mS/cm uS/cm	6.25	30.41	0.0
1500	0933	45.69			19.8	0.25	0.984 mS/cm uS/cm	6.28	21.14	0.0
1800	0934	45.70			19.8	0.23	0.985 mS/cm uS/cm	6.30	12.75	5.3
2100	0935	45.69			19.8	0.22	0.985 mS/cm uS/cm	6.32	5.602	0.0
2400	0936	45.71			19.9	0.21	0.983 mS/cm uS/cm	6.34	-2.40	0.0
2700	0937	45.71			19.9	0.20	0.980 mS/cm uS/cm	6.35	-8.70	0.0
3000	0938	45.71			20.0	0.19	0.977 mS/cm uS/cm	6.36	-14.90	0.0
3300	0939	↓	↓	↓	20.0	0.17	0.975 mS/cm uS/cm	6.37	-20.25	0.0
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0928 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS -- ~~45608/5302~~ 29218/45720 (MW)

Stop Time: 0939 Average Purge Rate (mL/min): 300 Date Calibrated: 4-19-23

SAMPLING DATA

Sample Date: 4-19-23 Sample Time: 0945 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace (Y) Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 3300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-19-23 WEATHER: clear 70°

MONITORING WELL ID: P-58 SAMPLE ID: P58-ROX-041923

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc
Total Well Depth (btoc): 65.21 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to Water (btoc): 42.96 ft	
Depth to LNAPL/DNAPL (btoc): NE ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 47.96 ft btoc
Depth to Top of Screen (btoc): 40.21 ft	
Screen Length: 25 ft	
Water Column Height (not including NAPL): 22.25 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc

Volume of Flow Through Cell : 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
			STABLE: (over 4 readings)		Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1033	43.13	Slight cloudy	mod. HC	22.1	0.37	1.287 mS/cm uS/cm	6.26	0.58	42.7
300	1034	43.13	brown		22.2	0.30	1.285 mS/cm uS/cm	6.28	-9.52	34.7
600	1035	43.13	↓		22.3	0.26	1.286 mS/cm uS/cm	6.28	-18.50	28.6
900	1036	↓	Clearer		22.4	0.22	1.285 mS/cm uS/cm	6.29	-26.48	24.4
1200	1037				22.5	0.20	1.286 mS/cm uS/cm	6.29	-33.06	21.6
1500	1038				22.5	0.18	1.285 mS/cm uS/cm	6.30	-39.35	18.8
1800	1039	↓	↓	↓	22.4	0.16	1.285 mS/cm uS/cm	6.30	-44.98	17.3
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMA 4/19/23

Start Time: 1033 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 22A8/45720

Stop Time: 1039 Average Purge Rate (mL/min): 300 Date Calibrated: 4-19-23

SAMPLING DATA

Sample Date: 4-19-23 Sample Time: 1045 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace Y N Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-20-23 WEATHER: Mostly cloudy 76°

MONITORING WELL ID: P-59 SAMPLE ID: P59-ROX-042023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 72.91 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 45.10 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 47.91 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 52.91 ft btoc	Wellbore PID/FID Reading: 78.9 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 27.81 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1141	45.10	Clear	Strong HC	23.6	0.54	1.351 (mS/cm) uS/cm	6.52	-59.42	0.0
300	1142	45.10			23.8	0.50	1.353 mS/cm uS/cm	6.47	-61.88	0.0
600	1143	45.10			23.8	0.44	1.363 mS/cm uS/cm	6.46	-64.83	0.0
900	1144	↓			23.5	0.38	1.369 (mS/cm) uS/cm	6.45	-67.08	0.0
1200	1145				23.5	0.34	1.367 mS/cm uS/cm	6.45	-70.28	0.0
1500	1146	↓	↓	↓	23.5	0.32	1.369 mS/cm uS/cm	6.45	-72.13	0.0
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/20/23

Start Time: 1141 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 24218/45720

Stop Time: 1146 Average Purge Rate (mL/min): 300 Date Calibrated: 4-20-23

SAMPLING DATA

Sample Date: 4-20-23 Sample Time: 1150 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/12/23 WEATHER: Clear 67°

MONITORING WELL ID: P-66 SAMPLE ID: —

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 59.72 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 35.57 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.2 ppm
Depth to LNAPL/DNAPL (btoc): 34.52 ft		
Depth to Top of Screen (btoc): 34.72 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 343.7 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 24.15 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: YSI ProDSS --

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

SAMPLING DATA

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

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

NS due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA Jenkins

DATE: 4-20-23 WEATHER: OVERCAST 80°

MONITORING WELL ID: P-68 SAMPLE ID: —

INITIAL DATA

Well Diameter): 4 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 68.76 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 26.67 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): 36.41 ft		
Depth to Top of Screen (btoc): 43.76 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 80.2 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 32.09 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings; Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

JMM 4/20/23

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: YSI ProDSS --

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

SAMPLING DATA

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

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

NOT SAMPLED due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: J. Mayer T. Jenkins

DATE: 4-17-2023 WEATHER: 60° Clear

MONITORING WELL ID: P-74 SAMPLE ID: P74-ROX-041723

INITIAL DATA

Well Diameter): 4 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 68.83 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.17 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 43.83 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 48.83 ft btoc	Wellbore PID/FID Reading: 0.2 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 27.66 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
					STABLE: (over 4 readings)	Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1306	41.42	Clear	Slight	17.5	4.99	0.211 mS/cm uS/cm	8.03	-9.9	7.83
1500	1311	41.44			17.9	2.37	0.205 mS/cm uS/cm	7.32	-16.0	7.66
1800	1312				17.9	2.22	0.206 mS/cm uS/cm	7.24	-15.4	8.04
3300	1317				17.9	1.74	0.211 mS/cm uS/cm	7.34	-24.2	6.73
3600	1318				18.1	1.65	0.212 mS/cm uS/cm	7.30	-28.8	6.46
3900	1319				18.1	1.59	0.214 mS/cm uS/cm	7.28	-32.4	6.19
4200	1320				18.0	1.54	0.214 mS/cm uS/cm	7.26	-35.3	6.18
4500	1321	↓	↓	↓	18.1	1.51	0.214 mS/cm uS/cm	7.24	-37.6	6.29
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4-17-23

Start Time: 1306 Elapsed Time (min): 15 Water Quality Meter ID & SN: YSI ProDSS - L/9337/428599

Stop Time: 1321 Average Purge Rate (mL/min): 300 Date Calibrated: 4-17-2023

SAMPLING DATA

Sample Date: 4-17-2023 Sample Time: 1325 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 4500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMBSSA TJenkins

DATE: 4-19-23 WEATHER: Clear 74°

MONITORING WELL ID: P-93A SAMPLE ID: 093A-ROX-041923

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 53.07 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 43.28 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 48.18 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 43.07 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.79 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1135	43.32	clear	none	20.6	0.54	1.105 mS/cm uS/cm	6.27	26.67	0.0
300	1136	43.32			20.8	0.54	1.103 mS/cm uS/cm	6.25	27.15	0.0
600	1137	43.32			21.3	0.55	(W) 1.099 mS/cm uS/cm	6.24	27.10	0.0
900	1138				22.7	2.81	(W) 1.097 mS/cm uS/cm	6.24	28.11	0.0
1200	1139				22.4	1.23	1.104 mS/cm uS/cm	6.22	28.19	0.0
1500	1140				21.5	0.71	1.101 mS/cm uS/cm	6.22	28.10	0.0
1800	1141				21.3	0.51	1.094 mS/cm uS/cm	6.21	27.53	0.0
2100	1142				21.3	0.47	1.092 mS/cm uS/cm	6.20	26.75	0.0
2400	1143				21.5	0.34	1.090 mS/cm uS/cm	6.20	26.20	0.0
2700	1144	↓	↓	↓	21.5	0.31	1.090 mS/cm uS/cm	6.20	25.60	0.0
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/19/23

Start Time: 1135 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS -- 21218/45720

Stop Time: 1144 Average Purge Rate (mL/min): 300 Date Calibrated: 4-19-23

SAMPLING DATA

Sample Date: 4-19-23 Sample Time: 1150 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-20-23 WEATHER: OVERCAST 77°

MONITORING WELL ID: P-93B SAMPLE ID: P93B-ROX-042023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc
Total Well Depth (btoc): 76.78 ft	
Depth to Water (btoc): 44.67 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 74.78 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc
Screen Length: 2 ft	
Water Column Height (not including NAPL): 32.11 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 75.78 ft btoc

Volume of Flow Through Cell : 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings; Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1254	44.65	clear	Slight HC	20.2	0.63	1.199 mS/cm uS/cm	6.45	-28.05	3.07
300	1255	44.65			20.2	0.49	1.209 mS/cm uS/cm	6.41	-32.11	3.51
600	1256	44.65			20.1	0.42	1.214 mS/cm uS/cm	6.40	-37.25	3.98
900	1257	↓			20.0	0.38	1.229 mS/cm uS/cm	6.40	-41.62	4.47
1200	1258				20.0	0.36	1.243 mS/cm uS/cm	6.40	-45.63	4.00
1500	1259 (MW)		↓	↓	19.9	0.35	1.258 mS/cm uS/cm	6.41	-49.48	2.97
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/20/23

Start Time: 1254 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 22B/45720

Stop Time: 1259 Average Purge Rate (mL/min): 300 Date Calibrated: 4-20-23

SAMPLING DATA

Sample Date: 4-20-23 Sample Time: 1305 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-19-23 WEATHER: clear 78°

MONITORING WELL ID: P-93C SAMPLE ID: P93C-RDX-041923

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 97.88 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 44.45 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 92.88 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 2 ft		
Water Column Height (not including NAPL): 53.43 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 93.88 ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1248	44.45	clear	slight HC	21.0	0.62	1.003 (mS/cm) uS/cm	6.33	20.28	0.0
300	1249	44.46	↓		20.9	0.58	1.013 (mS/cm) uS/cm	6.30	18.57	0.0
600	1250	44.47			21.0	0.51	1.019 (mS/cm) uS/cm	6.30	15.33	0.0
900	1251	44.47			20.6	0.45	1.024 (mS/cm) uS/cm	6.30	11.63	0.0
1200	1252	44.47	↓	↓	20.7	0.40	1.024 (mS/cm) uS/cm	6.30	7.91	0.0
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

NM Heater

Start Time: 1248 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 29218/45720

Stop Time: 1252 Average Purge Rate (mL/min): 300 Date Calibrated: 4-19-23

SAMPLING DATA

Sample Date: 4-19-23 Sample Time: 1255 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: NONE

VOA Vials, No Headspace [X] Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-21-23 WEATHER: Clear 62°

MONITORING WELL ID: P-93D SAMPLE ID: P93D-ROX-042123

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 127.91 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 44.90 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 125.66 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 2 ft		
Water Column Height (not including NAPL): 83.03 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 126.66 ft btoc	

PURGE DATA

Pump Type: Dedicated Well Wizard

STABLE: (over 4 readings) Monitor Temp. +/-0.2 mg/L or +/-10% +/-5% or +/-2 uS/cm +/-0.2 mg/L +/-20 mV Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1219	44.90	Clear	none	18.2	1.78	1.047 (mS/cm) uS/cm	6.79	47.01	5.12
300	1220	↓	↓	↓	18.2	1.76	1.026 mS/cm (uS/cm)	6.84	31.46	5.78
600	1221				18.2	1.66	1.015 mS/cm (uS/cm)	6.85	26.83	5.18
900	1222				18.1	1.44	1.000 mS/cm (uS/cm)	6.85	20.63	5.45
1200	1223				18.1	1.28	0.988 mS/cm (uS/cm)	6.85	14.34	2.75
1500	1224				18.1	1.22	0.982 mS/cm (uS/cm)	6.85	9.82	1.64
1800	1225				18.1	1.13	0.976 mS/cm (uS/cm)	6.85	4.79	2.66
2100	1226				18.0	1.07	0.973 mS/cm (uS/cm)	6.85	0.85	1.28
2400	1227				18.0	1.04	0.971 mS/cm (uS/cm)	6.85	-3.79	1.20
2700	1228				18.0	0.99	0.969 mS/cm (uS/cm)	6.85	-6.44	1.22
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/21/23

Start Time: 1219 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS (29218/45720)

Stop Time: 1228 Average Purge Rate (mL/min): 300 Date Calibrated: 4-21-23

SAMPLING DATA

Sample Date: 4-21-23 Sample Time: 1230 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: J. Jenkins S. Mayer

DATE: 4-13-2023 WEATHER: 80° Partly Cloudy

MONITORING WELL ID: P-114R SAMPLE ID: P114R-ROX-041323

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 33.31 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 26.67 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 29.99 ft btoc	Ambient PID/FID Reading: 0.1 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 23.01 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 5.9 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 6.64 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.		pH	ORP (mV)	Turb (NTU)
0	1118	26.72	Cloudy	Moderate	22.1	2.47	0.877	mS/cm uS/cm	7.02	-87.7	398.15
3600	1130	↓	clear	↓	21.5	0.39	0.856	mS/cm uS/cm	6.98	-124.6	92.41
3900	1131				21.5	0.38	0.856	mS/cm uS/cm	6.95	-126.0	82.96
4200	1132				21.5	0.37	0.856	mS/cm uS/cm	6.96	-127.1	78.03
4500	1133				21.5	0.36	0.854	mS/cm uS/cm	6.96	-127.8	69.04
4800	1134				21.6	0.35	0.855	mS/cm uS/cm	6.95	-128.5	68.18
5100	1135				21.8	0.34	0.854	mS/cm uS/cm	6.95	-129.4	64.60
5400	1136				21.8	0.34	0.855	mS/cm uS/cm	6.95	-129.7	62.24
5700	1137				21.7	0.33	0.855	mS/cm uS/cm	7.09	-138.8	61.88
6000	1138				21.6	0.32	0.854	mS/cm uS/cm	7.12	-140.3	60.64
6300	1139				21.7	0.32	0.852	mS/cm uS/cm	7.13	-141.6	59.69
6600	1140	↓	↓	↓	21.6	0.32	0.854	mS/cm uS/cm	7.13	-141.9	58.43
								mS/cm uS/cm			
						4-13-23		mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			

Start Time: 1118 Elapsed Time (min): 12 Water Quality Meter ID & SN: YSI ProDSS - 49337/428599

Stop Time: 1140 Average Purge Rate (mL/min): 300 Date Calibrated: 4-13-2023

SAMPLING DATA

Sample Date: 4-13-2023 Sample Time: 1145 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace: ☒ Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 6600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4/11/23 WEATHER: Clear 76°

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ROST3MW-ROX-041123

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 48.06 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.19 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.13 ft btoc	
Depth to LNAPL/DNAPL (btoc): NE ft		Ambient PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 37.81 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 3.0 ppm
Screen Length: 10 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
Water Column Height (not including NAPL): 7.87 ft	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings; Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1323	40.24	Slight cloudy	Slight HC	17.0	1.32	1.177 mS/cm uS/cm	6.91	-80.90	47.78
300	1324	40.24	brown		17.2	1.05	1.176 mS/cm uS/cm	6.91	-85.91	44.60
600	1325	40.24	↓	↓	17.3	0.89	1.176 mS/cm uS/cm	6.91	-90.16	40.47
900	1326	↓			17.3	0.81	1.176 mS/cm uS/cm	6.92	-93.20	36.41
1200	1327		Clear		17.4	0.76	1.175 mS/cm uS/cm	6.92	-95.69	33.50
1500	1328				17.5	0.71	1.174 mS/cm uS/cm	6.93	-98.07	28.57
1800	1329	↓	↓	↓	17.7	0.68	1.172 mS/cm uS/cm	6.93	-99.95	26.09
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/11/23

Start Time: 1323 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1329 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/23

SAMPLING DATA

Sample Date: 4/11/23 Sample Time: 1325 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW | PROJECT NUMBER: 60697537 - 3.2.1/2/3 | FIELD PERSONNEL: J. Mayer T. Jenkins ~~T. Jones~~ JM

DATE: 4-17-23 | WEATHER: 47° Clear

MONITORING WELL ID: ROST-4-PZ(C) | SAMPLE ID: ROST4PZC-ROX-041723

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ~~—~~ ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 45.20 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.34 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.77 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NS ft		
Depth to Top of Screen (btoc): 34.95 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ~~—~~ ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 4.86 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~~—~~ ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ~~—~~ ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0940	40.71	clear	moderate	15.4	1.12	1.257 mS/cm uS/cm	6.96	-20.9	7.27
900	0943	↓	↓	↓	15.7	0.81	1.258 mS/cm uS/cm	6.98	-41.7	8.05
1200	0944				15.7	0.75	1.255 mS/cm uS/cm	6.98	-45.2	8.76
1500	0945				15.8	0.69	1.262 mS/cm uS/cm	6.99	-49.5	12.15
1800	0946				15.8	0.67	1.253 mS/cm uS/cm	6.99	-51.0	10.70
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm ~~uS/cm~~			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

JM 4-17-23

Start Time: 0940 | Elapsed Time (min): 6 | Water Quality Meter ID & SN: YSI ProDSS - 49337/42859

Stop Time: 0946 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4-17-2023

SAMPLING DATA

Sample Date: 4-17-23 | Sample Time: 0955 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: FB

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-18-23 WEATHER: CLEAR 61°

MONITORING WELL ID: ROST-4-PZ(E) SAMPLE ID: ROST4PZE-ROX-041823

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 45.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.24 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.12 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 34.75 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 5.76 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1134	39.46	slightly cloudy brown	mod. HC	18.1	1.59	1.317 mS/cm uS/cm	6.64	-53.02	51.67
300	1134	39.46			NM	1.31	NM mS/cm uS/cm	6.65	-60.03	34.21
600	1135	39.46				1.20	mS/cm uS/cm	6.66	-64.21	26.09
900	1136					1.06	mS/cm uS/cm	6.67	-70.90	22.58
1200	1137					0.98	mS/cm uS/cm	6.67	-75.43	19.94
1500	1138					0.90	mS/cm uS/cm	6.68	-80.66	18.15
1800	1139					0.83	mS/cm uS/cm	6.68	-86.37	16.77
2100	1140					0.79	mS/cm uS/cm	6.69	-89.72	14.51
2400	1141					0.75	mS/cm uS/cm	6.69	-94.07	13.82
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1133 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 49337/42859

Stop Time: 1141 Average Purge Rate (mL/min): 300 Date Calibrated: 4-18-23

SAMPLING DATA

Sample Date: 4-18-23 Sample Time: 1145 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: DUP

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

temp/conductivity sensor died after first reading after pruning trouble at last well

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW | PROJECT NUMBER: 60697537 - 3.2.1/2/3 | FIELD PERSONNEL: J. Mayer T. Jenkins

DATE: 4-14-2023 | WEATHER: 76° Clear

MONITORING WELL ID: ROST-4-PZ(G) | SAMPLE ID: ROST4PZG-ROX-041423

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc
Total Well Depth (btoc): 44.53 ft	
Depth to Water (btoc): 39.96 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.25 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 34.28 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 4.57 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1103	40.02	black	slight	18.5	2.89	1.548 mS/cm uS/cm	7.00	-78.2	55.07
1500	1108	↓	black	↓	19.2	0.85	1.538 mS/cm uS/cm	6.97	-102.9	51.78
1800	1109	↓	clear	↓	19.2	0.76	1.538 mS/cm uS/cm	7.01	-106.7	45.06
2100	1110	↓	↓	↓	19.2	0.68	1.535 mS/cm uS/cm	7.02	-108.4	37.88
2400	1111	↓	↓	↓	19.2	0.63	1.532 mS/cm uS/cm	7.03	-110.2	35.83
2700	1112	↓	↓	↓	19.2	0.59	1.531 mS/cm uS/cm	7.04	-112.0	34.16
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

JM 4-14-2023

Start Time: 1103 | Elapsed Time (min): 9 | Water Quality Meter ID & SN: YSI ProDSS - 19337/18759

Stop Time: 1112 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4-14-23

SAMPLING DATA

Sample Date: 4-14-23 | Sample Time: 1115 | Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q23 GW PROJECT NUMBER: 60697537 - 3.2.1/2/3 FIELD PERSONNEL: MMASSA TJenkins

DATE: 4-20-23 WEATHER: ~~Overcast~~ Mostly Cloudy 72°

MONITORING WELL ID: T-12 SAMPLE ID: T12-ROX-04202023

INITIAL DATA

Well Diameter): 6 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc
Total Well Depth (btoc): 72.83 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to Water (btoc): 42.91 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 51.83 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to Top of Screen (btoc): 46.83 ft	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc
Screen Length: 26 ft	
Water Column Height (not including NAPL): 29.92 ft	

Volume of Flow Through Cell : 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.2 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color (STABLE: over 4 readings)	Odor (STABLE: over 4 readings)	Temp (°C) (Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1022	42.95	Clear	Slight HC	22.2	0.49	1.800 mS/cm uS/cm	6.48	-58.78	0.00
300	1023	42.95			22.5	0.43	1.800 mS/cm uS/cm	6.51	-66.37	0.59
600	1024	42.95			22.7	0.39	1.802 mS/cm uS/cm	6.53	-72.52	1.46
900	1025	↓			22.6	0.37	1.811 mS/cm uS/cm	6.55	-78.08	3.18
1200	1026	↓	↓	↓	22.4	0.33	1.815 mS/cm uS/cm	6.56	-82.33	4.97
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			

MMA 4/20/23

Start Time: 1022 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 21218/15720

Stop Time: 1026 Average Purge Rate (mL/min): 300 Date Calibrated: 4-20-23

SAMPLING DATA

Sample Date: 4-20-23 Sample Time: 1030 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

Appendix C

Data Review Forms and Laboratory Analytical Reports

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-235763-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/29/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-040623-8260	TB-ROX-040623-8011
MW1-ROX-040623-EB	MW1-ROX-040623
MW10-ROX-040623	MW11-ROX-040623

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 several VOCs and diethyl phthalate were detected in equipment blank MW1-ROX-040623-EB. VOC and SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Surrogate recoveries for PAH terphenyl-d_{14} in several investigative and quality control samples were outside criteria. Several VOC, SVOC and 1,2-Dibromo-3-Chloropropane MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in sample MW10-ROX-040623. The continuing calibration verification (CCV) for 1,4-dioxane, hexachlorocyclopentadiene, and 4,6-dinitro-ortho-cresol was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MW1-ROX-040623-EB	VOCs	Acetone	10 µg/L
MW1-ROX-040623-EB	VOCs	2-Butanone (MEK)	3.0 µg/L
MW1-ROX-040623-EB	SVOCs	Diethyl phthalate	0.4 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW1-ROX-040623	SVOCs	Diethyl 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
LCS 400-621105/1002	VOCs	Acetone	**179**	NA	43-160
LCS 400-621105/1002	VOCs	1-Chlorohexane	**134**	NA	69-130
LCS 400-621105/1002	VOCs	Tetrachloroethene	**140**	NA	65-130
LCS 400-620225/2-A	SVOCs	3,3'-Dichlorobenzidine	**138**	NA	36-132
LCS/LCSD 400-620225/5-A/6-A	SVOCs	Benzenethiol	**5**/15	**98**	10-120/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-040623	SVOCs	Benzenethiol	**UJ**
MW10-ROX-040623	SVOCs	Benzenethiol	**UJ**
MW11-ROX-040623	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW1-ROX-040623-EB	PAHs	Terphenyl-d_{14}	**171**	33-138
MW1-ROX-040623	PAHs	Terphenyl-d_{14}	**163**	33-138
MW10-ROX-040623	PAHs	Terphenyl-d_{14}	**179**	33-138
MW11-ROX-040623	PAHs	Terphenyl-d_{14}	**155**	33-138
MB 400-620225/1-A	PAHs	Terphenyl-d_{14}	**193**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Equipment blanks and method blanks are quality control samples and do not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample MW10-ROX-040623 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW10-ROX-040623 MS/MSD	VOCs	Acetone	**152**/141	8	43-150/30
MW10-ROX-040623 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW10-ROX-040623 MS/MSD	VOCs	2-Hexanone	**142**/136	5	65-140/30
MW10-ROX-040623 MS/MSD	SVOCs	1,4-Dioxane	**37/40**	5	50-150/40
MW10-ROX-040623 MS/MSD	SVOCs	3,3'-Dichlorobenzidine	**122/129**	2	10-120/58
MW10-ROX-040623 MS/MSD	VOCs by 8011	1,2-Dibromo-3-Chloropropane	145/**164**	13	10-150/20

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. 1,4-Dioxane in sample MW10-ROX-040623 is qualified in Section 12.0 of this data review due to continuing calibration verification (CCV) outside evaluation criteria exceedance; no further qualification is required.

Sample ID	Parameter	Analyte	Qualification
MW10-ROX-040623	VOCs	2-Chloroethyl vinyl ether	**UJ**

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 continuing calibration verification (CCV) for 1,4-dioxane, hexachlorocyclopentadiene, and 4,6-dinitro-ortho-cresol was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW10-ROX-040623	SVOCs	1,4-Dioxane	**UJ**
MW10-ROX-040623	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW10-ROX-040623	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
MW1-ROX-040623	SVOCs	1,4-Dioxane	**UJ**
MW1-ROX-040623	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW1-ROX-040623	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
MW11-ROX-040623	SVOCs	1,4-Dioxane	**UJ**
MW11-ROX-040623	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW11-ROX-040623	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 4/24/2023 6:07:10 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-235763-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

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Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 27
Surrogate Summary 28
Method Summary 30
Chronicle 31
QC Association 35
QC Sample Results 37
Chain of Custody 57
Receipt Checklists 60
Certification Summary 61

Job ID: 400-235763-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-235763-1

Receipt
The samples were received on 4/7/2023 9:53 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.8°C and 3.5°C

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-621105 recovered above the upper control limit for Acetone. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: The matrix spike (MS) recoveries for analytical batch 400-621105 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-621105 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-621105 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-621105 recovered outside control limits for the following analytes: 1-Chlorohexane, Acetone and Tetrachloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-040623-8260 (400-235763-1), MW1-ROX-040623 (400-235763-4), MW10-ROX-040623 (400-235763-5) and MW11-ROX-040623 (400-235763-6). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: MW1-ROX-040623-EB (400-235763-3). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: Sample MW1-ROX-040623-EB (400-235763-3) contains 2-Butanone (MEK) and Acetone between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-620225 and analytical batch 400-620356 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-620225 and analytical batch 400-620356 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-620225 and analytical batch 400-620356 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-620356 recovered outside acceptance criteria, low

Job ID: 400-235763-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

biased, for 1,4-Dioxane, 4,6-Dinitro-ortho-cresol and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D_LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW1-ROX-040623-EB (400-235763-3), MW1-ROX-040623 (400-235763-4), MW10-ROX-040623 (400-235763-5), MW11-ROX-040623 (400-235763-6) and (MB 400-620225/1-A). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-620882 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The matrix spike duplicate (MSD) recovery for preparation batch 400-620706 and analytical batch 400-620882 was outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-235763-1	TB-ROX-040623-8260	Water	04/06/23 12:00	04/07/23 09:53
400-235763-2	TB-ROX-040623-8011	Water	04/06/23 12:00	04/07/23 09:53
400-235763-3	MW1-ROX-040623-EB	Water	04/06/23 08:50	04/07/23 09:53
400-235763-4	MW1-ROX-040623	Water	04/06/23 10:45	04/07/23 09:53
400-235763-5	MW10-ROX-040623	Water	04/06/23 12:10	04/07/23 09:53
400-235763-6	MW11-ROX-040623	Water	04/06/23 13:25	04/07/23 09:53

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: TB-ROX-040623-8260 — Lab Sample ID: 400-235763-1

No Detections.

Client Sample ID: TB-ROX-040623-8011 — Lab Sample ID: 400-235763-2

No Detections.

Client Sample ID: MW1-ROX-040623-EB — Lab Sample ID: 400-235763-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	J	25	10	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	3.0	J	25	2.6	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.40	J	9.8	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: MW1-ROX-040623 — Lab Sample ID: 400-235763-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.33	J U	10	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: MW10-ROX-040623 — Lab Sample ID: 400-235763-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.73	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.33	J	10	0.25	ug/L	1		8270D	Total/NA
Di-n-octyl phthalate	3.4	J	10	0.17	ug/L	1		8270D	Total/NA

Client Sample ID: MW11-ROX-040623 — Lab Sample ID: 400-235763-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.33	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.44	J	9.8	0.23	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: TB-ROX-040623-8260
Date Collected: 04/06/23 12:00
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/17/23 19:36	1
Acrolein	ND		20	3.3	ug/L			04/17/23 19:36	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/23 19:36	1
Benzene	ND		1.0	0.13	ug/L			04/17/23 19:36	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/23 19:36	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/23 19:36	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/23 19:36	1
Bromoform	ND		5.0	0.25	ug/L			04/17/23 19:36	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/23 19:36	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/23 19:36	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/23 19:36	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/23 19:36	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/17/23 19:36	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/23 19:36	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/23 19:36	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/17/23 19:36	1
Chloroform	ND		1.0	1.0	ug/L			04/17/23 19:36	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/17/23 19:36	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/23 19:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/23 19:36	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/23 19:36	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/23 19:36	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/23 19:36	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/23 19:36	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/23 19:36	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/23 19:36	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/23 19:36	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 19:36	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 19:36	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 19:36	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 19:36	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/23 19:36	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/23 19:36	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/23 19:36	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/23 19:36	1
2-Hexanone	ND		25	1.4	ug/L			04/17/23 19:36	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/17/23 19:36	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/23 19:36	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/23 19:36	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/23 19:36	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/17/23 19:36	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/23 19:36	1
Naphthalene	ND		5.0	3.0	ug/L			04/17/23 19:36	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/23 19:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/23 19:36	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/23 19:36	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/23 19:36	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/23 19:36	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/23 19:36	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: TB-ROX-040623-8260
Date Collected: 04/06/23 12:00
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/23 19:36	1
Styrene	ND		1.0	1.0	ug/L			04/17/23 19:36	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/23 19:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/23 19:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/23 19:36	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			04/17/23 19:36	1
Toluene	ND		1.0	0.41	ug/L			04/17/23 19:36	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 19:36	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/23 19:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/23 19:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/23 19:36	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/23 19:36	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/23 19:36	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/23 19:36	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/23 19:36	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/23 19:36	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/17/23 19:36	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/17/23 19:36	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/23 19:36	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/17/23 19:36	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/23 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/17/23 19:36*	*1*
Dibromofluoromethane	*118*		*75 - 126*		*04/17/23 19:36*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*04/17/23 19:36*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: TB-ROX-040623-8011
Date Collected: 04/06/23 12:00
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/13/23 12:10	04/14/23 19:04	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/13/23 12:10	04/14/23 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/13/23 12:10*	*04/14/23 19:04*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW1-ROX-040623-EB
Date Collected: 04/06/23 08:50
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**10**	**J**	25	10	ug/L			04/20/23 15:00	1
Acrolein	ND		20	3.3	ug/L			04/20/23 15:00	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/23 15:00	1
Benzene	ND		1.0	0.13	ug/L			04/20/23 15:00	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/23 15:00	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/23 15:00	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/23 15:00	1
Bromoform	ND		5.0	0.25	ug/L			04/20/23 15:00	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/23 15:00	1
2-Butanone (MEK)	**3.0**	**J**	25	2.6	ug/L			04/20/23 15:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/23 15:00	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/23 15:00	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/23 15:00	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/23 15:00	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/23 15:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/23 15:00	1
Chloroform	ND		1.0	1.0	ug/L			04/20/23 15:00	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/23 15:00	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/23 15:00	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/23 15:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/23 15:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/23 15:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/23 15:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/23 15:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/23 15:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/23 15:00	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/23 15:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/23 15:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/23 15:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/23 15:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/23 15:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/23 15:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/23 15:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/23 15:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/23 15:00	1
2-Hexanone	ND		25	1.4	ug/L			04/20/23 15:00	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/20/23 15:00	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/23 15:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/23 15:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/23 15:00	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/23 15:00	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/23 15:00	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/23 15:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/23 15:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/23 15:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/23 15:00	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/23 15:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/23 15:00	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/23 15:00	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW1-ROX-040623-EB
Date Collected: 04/06/23 08:50
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/23 15:00	1
Styrene	ND		1.0	1.0	ug/L			04/20/23 15:00	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/23 15:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/23 15:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/23 15:00	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/23 15:00	1
Toluene	ND		1.0	0.41	ug/L			04/20/23 15:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/23 15:00	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/23 15:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/23 15:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/23 15:00	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/23 15:00	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/23 15:00	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/23 15:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/23 15:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/23 15:00	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/20/23 15:00	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/20/23 15:00	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/23 15:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/23 15:00	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/23 15:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 119*		*04/20/23 15:00*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/20/23 15:00*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*04/20/23 15:00*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/10/23 11:20	04/11/23 18:07	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/10/23 11:20	04/11/23 18:07	1
Anthracene	ND		0.20	0.031	ug/L		04/10/23 11:20	04/11/23 18:07	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/10/23 11:20	04/11/23 18:07	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/10/23 11:20	04/11/23 18:07	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/10/23 11:20	04/11/23 18:07	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/10/23 11:20	04/11/23 18:07	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/10/23 11:20	04/11/23 18:07	1
Chrysene	ND		0.20	0.073	ug/L		04/10/23 11:20	04/11/23 18:07	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/10/23 11:20	04/11/23 18:07	1
Fluoranthene	ND		0.20	0.067	ug/L		04/10/23 11:20	04/11/23 18:07	1
Fluorene	ND		0.20	0.11	ug/L		04/10/23 11:20	04/11/23 18:07	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/10/23 11:20	04/11/23 18:07	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/10/23 11:20	04/11/23 18:07	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/10/23 11:20	04/11/23 18:07	1
Phenanthrene	ND		0.20	0.035	ug/L		04/10/23 11:20	04/11/23 18:07	1
Pyrene	ND		0.20	0.039	ug/L		04/10/23 11:20	04/11/23 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*105*		*15 - 122*	*04/10/23 11:20*	*04/11/23 18:07*	*1*
Nitrobenzene-d5	*99*		*19 - 130*	*04/10/23 11:20*	*04/11/23 18:07*	*1*

Client Sample ID: MW1-ROX-040623-EB
Date Collected: 04/06/23 08:50
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*171*	*S1+*	*33 - 138*	*04/10/23 11:20*	*04/11/23 18:07*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/10/23 11:20	04/11/23 14:42	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/10/23 11:20	04/11/23 14:42	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/10/23 11:20	04/11/23 14:42	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/10/23 11:20	04/11/23 14:42	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/10/23 11:20	04/11/23 14:42	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/10/23 11:20	04/11/23 14:42	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/10/23 11:20	04/11/23 14:42	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/10/23 11:20	04/11/23 14:42	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/10/23 11:20	04/11/23 14:42	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/10/23 11:20	04/11/23 14:42	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/10/23 11:20	04/11/23 14:42	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/10/23 11:20	04/11/23 14:42	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/10/23 11:20	04/11/23 14:42	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/10/23 11:20	04/11/23 14:42	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/10/23 11:20	04/11/23 14:42	1
3,3'-Dichlorobenzidine	ND	*+	9.8	2.6	ug/L		04/10/23 11:20	04/11/23 14:42	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/10/23 11:20	04/11/23 14:42	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/10/23 11:20	04/11/23 14:42	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/10/23 11:20	04/11/23 14:42	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/10/23 11:20	04/11/23 14:42	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/10/23 11:20	04/11/23 14:42	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/10/23 11:20	04/11/23 14:42	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/10/23 11:20	04/11/23 14:42	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/10/23 11:20	04/11/23 14:42	1
Aniline	ND		9.8	3.7	ug/L		04/10/23 11:20	04/11/23 14:42	1
Benzenethiol	ND	*1 *-	9.8	1.7	ug/L		04/10/23 11:20	04/11/23 14:42	1
Benzoic acid	ND		29	7.2	ug/L		04/10/23 11:20	04/11/23 14:42	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/10/23 11:20	04/11/23 14:42	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/10/23 11:20	04/11/23 14:42	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/10/23 11:20	04/11/23 14:42	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		04/10/23 11:20	04/11/23 14:42	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/10/23 11:20	04/11/23 14:42	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/10/23 11:20	04/11/23 14:42	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/10/23 11:20	04/11/23 14:42	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 14:42	1
Diethyl phthalate	**0.40**	**J**	9.8	0.24	ug/L		04/10/23 11:20	04/11/23 14:42	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 14:42	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		04/10/23 11:20	04/11/23 14:42	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 14:42	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 14:42	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/10/23 11:20	04/11/23 14:42	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/10/23 11:20	04/11/23 14:42	1
Indene	ND		9.8	0.98	ug/L		04/10/23 11:20	04/11/23 14:42	1
Isophorone	ND		9.8	0.14	ug/L		04/10/23 11:20	04/11/23 14:42	1

Client Sample ID: MW1-ROX-040623-EB

Date Collected: 04/06/23 08:50
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		9.8	0.13	ug/L		04/10/23 11:20	04/11/23 14:42	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/10/23 11:20	04/11/23 14:42	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/10/23 11:20	04/11/23 14:42	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/10/23 11:20	04/11/23 14:42	1
Pentachlorophenol	ND		20	1.4	ug/L		04/10/23 11:20	04/11/23 14:42	1
Phenol	ND		9.8	2.6	ug/L		04/10/23 11:20	04/11/23 14:42	1
Pyridine	ND		9.8	3.1	ug/L		04/10/23 11:20	04/11/23 14:42	1
Quinoline	ND		9.8	4.4	ug/L		04/10/23 11:20	04/11/23 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*46 - 124*	*04/10/23 11:20*	*04/11/23 14:42*	*1*
2-Fluorophenol	*45*		*13 - 113*	*04/10/23 11:20*	*04/11/23 14:42*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*04/10/23 11:20*	*04/11/23 14:42*	*1*
Phenol-d5	*74*		*17 - 127*	*04/10/23 11:20*	*04/11/23 14:42*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/10/23 11:20*	*04/11/23 14:42*	*1*
2,4,6-Tribromophenol	*76*		*26 - 150*	*04/10/23 11:20*	*04/11/23 14:42*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/13/23 12:10	04/14/23 19:24	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/13/23 12:10	04/14/23 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*04/13/23 12:10*	*04/14/23 19:24*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW1-ROX-040623
Date Collected: 04/06/23 10:45
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/17/23 20:26	1
Acrolein	ND		20	3.3	ug/L			04/17/23 20:26	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/23 20:26	1
Benzene	**0.41**	**J**	1.0	0.13	ug/L			04/17/23 20:26	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/23 20:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/23 20:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/23 20:26	1
Bromoform	ND		5.0	0.25	ug/L			04/17/23 20:26	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/23 20:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/23 20:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/23 20:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/23 20:26	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/17/23 20:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/23 20:26	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/23 20:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/17/23 20:26	1
Chloroform	ND		1.0	1.0	ug/L			04/17/23 20:26	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/17/23 20:26	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/23 20:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/23 20:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/23 20:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/23 20:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/23 20:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/23 20:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/23 20:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/23 20:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/23 20:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 20:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 20:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 20:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 20:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/23 20:26	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/23 20:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/23 20:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/23 20:26	1
2-Hexanone	ND		25	1.4	ug/L			04/17/23 20:26	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/17/23 20:26	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/23 20:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/23 20:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/23 20:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/17/23 20:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/23 20:26	1
Naphthalene	ND		5.0	3.0	ug/L			04/17/23 20:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/23 20:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/23 20:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/23 20:26	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/23 20:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/23 20:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/23 20:26	1

Client Sample ID: MW1-ROX-040623
Date Collected: 04/06/23 10:45
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/23 20:26	1
Styrene	ND		1.0	1.0	ug/L			04/17/23 20:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/23 20:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/23 20:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/23 20:26	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			04/17/23 20:26	1
Toluene	ND		1.0	0.41	ug/L			04/17/23 20:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 20:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/23 20:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/23 20:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/23 20:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/23 20:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/23 20:26	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/23 20:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/23 20:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/23 20:26	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/17/23 20:26	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/17/23 20:26	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/23 20:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/17/23 20:26	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/23 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/17/23 20:26*	*1*
Dibromofluoromethane	*118*		*75 - 126*		*04/17/23 20:26*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*04/17/23 20:26*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/10/23 11:20	04/11/23 18:24	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/10/23 11:20	04/11/23 18:24	1
Anthracene	ND		0.20	0.032	ug/L		04/10/23 11:20	04/11/23 18:24	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/10/23 11:20	04/11/23 18:24	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/10/23 11:20	04/11/23 18:24	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/10/23 11:20	04/11/23 18:24	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/10/23 11:20	04/11/23 18:24	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/10/23 11:20	04/11/23 18:24	1
Chrysene	ND		0.20	0.074	ug/L		04/10/23 11:20	04/11/23 18:24	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/10/23 11:20	04/11/23 18:24	1
Fluoranthene	ND		0.20	0.068	ug/L		04/10/23 11:20	04/11/23 18:24	1
Fluorene	ND		0.20	0.11	ug/L		04/10/23 11:20	04/11/23 18:24	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/10/23 11:20	04/11/23 18:24	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/10/23 11:20	04/11/23 18:24	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/10/23 11:20	04/11/23 18:24	1
Phenanthrene	ND		0.20	0.036	ug/L		04/10/23 11:20	04/11/23 18:24	1
Pyrene	ND		0.20	0.040	ug/L		04/10/23 11:20	04/11/23 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/10/23 11:20*	*04/11/23 18:24*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/10/23 11:20*	*04/11/23 18:24*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW1-ROX-040623
Date Collected: 04/06/23 10:45
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*163*	*S1+*	*33 - 138*	*04/10/23 11:20*	*04/11/23 18:24*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
1,4-Dioxane	ND	UJ	10	1.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/10/23 11:20	04/11/23 15:04	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 15:04	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 15:04	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/10/23 11:20	04/11/23 15:04	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 15:04	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 15:04	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 15:04	1
2-Chlorophenol	ND		10	2.2	ug/L		04/10/23 11:20	04/11/23 15:04	1
2-Methylphenol	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 15:04	1
2-Nitroaniline	ND		10	2.2	ug/L		04/10/23 11:20	04/11/23 15:04	1
2-Nitrophenol	ND		10	5.2	ug/L		04/10/23 11:20	04/11/23 15:04	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/10/23 11:20	04/11/23 15:04	1
3,3'-Dichlorobenzidine	ND	*+	10	2.6	ug/L		04/10/23 11:20	04/11/23 15:04	1
3-Nitroaniline	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 15:04	1
4,6-Dinitro-ortho-cresol	ND	UJ	10	1.6	ug/L		04/10/23 11:20	04/11/23 15:04	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/10/23 11:20	04/11/23 15:04	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/10/23 11:20	04/11/23 15:04	1
4-Chloroaniline	ND		10	3.4	ug/L		04/10/23 11:20	04/11/23 15:04	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
4-Nitroaniline	ND		10	1.5	ug/L		04/10/23 11:20	04/11/23 15:04	1
4-Nitrophenol	ND		10	2.1	ug/L		04/10/23 11:20	04/11/23 15:04	1
Aniline	ND		10	3.8	ug/L		04/10/23 11:20	04/11/23 15:04	1
Benzenethiol	ND	*1 *- UJ	10	1.7	ug/L		04/10/23 11:20	04/11/23 15:04	1
Benzoic acid	ND		30	7.3	ug/L		04/10/23 11:20	04/11/23 15:04	1
Benzyl alcohol	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 15:04	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 15:04	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/10/23 11:20	04/11/23 15:04	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/10/23 11:20	04/11/23 15:04	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
Dibenzofuran	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 15:04	1
Diethyl phthalate	**0.33**	**J** U	10	0.24	ug/L		04/10/23 11:20	04/11/23 15:04	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 15:04	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/10/23 11:20	04/11/23 15:04	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 15:04	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 15:04	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/10/23 11:20	04/11/23 15:04	1
Hexachloroethane	ND		10	4.2	ug/L		04/10/23 11:20	04/11/23 15:04	1
Indene	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 15:04	1
Isophorone	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 15:04	1

Client Sample ID: MW1-ROX-040623
Date Collected: 04/06/23 10:45
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		10	0.13	ug/L		04/10/23 11:20	04/11/23 15:04	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 15:04	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/10/23 11:20	04/11/23 15:04	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/10/23 11:20	04/11/23 15:04	1
Pentachlorophenol	ND		20	1.4	ug/L		04/10/23 11:20	04/11/23 15:04	1
Phenol	ND		10	2.6	ug/L		04/10/23 11:20	04/11/23 15:04	1
Pyridine	ND		10	3.2	ug/L		04/10/23 11:20	04/11/23 15:04	1
Quinoline	ND		10	4.5	ug/L		04/10/23 11:20	04/11/23 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*04/10/23 11:20*	*04/11/23 15:04*	*1*
2-Fluorophenol	*36*		*13 - 113*	*04/10/23 11:20*	*04/11/23 15:04*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/10/23 11:20*	*04/11/23 15:04*	*1*
Phenol-d5	*59*		*17 - 127*	*04/10/23 11:20*	*04/11/23 15:04*	*1*
Terphenyl-d14	*95*		*44 - 149*	*04/10/23 11:20*	*04/11/23 15:04*	*1*
2,4,6-Tribromophenol	*66*		*26 - 150*	*04/10/23 11:20*	*04/11/23 15:04*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.028	0.016	ug/L		04/13/23 12:10	04/14/23 20:05	1
1,2-D bromoethane	ND		0.019	0.014	ug/L		04/13/23 12:10	04/14/23 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*51 - 149*	*04/13/23 12:10*	*04/14/23 20:05*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW10-ROX-040623
Date Collected: 04/06/23 12:10
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+ F1	25	10	ug/L			04/17/23 17:32	1
Acrolein	ND		20	3.3	ug/L			04/17/23 17:32	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/23 17:32	1
Benzene	**0.73**	**J**	1.0	0.13	ug/L			04/17/23 17:32	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/23 17:32	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/23 17:32	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/23 17:32	1
Bromoform	ND		5.0	0.25	ug/L			04/17/23 17:32	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/23 17:32	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/23 17:32	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/23 17:32	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/23 17:32	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/17/23 17:32	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/23 17:32	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/23 17:32	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			04/17/23 17:32	1
Chloroform	ND		1.0	1.0	ug/L			04/17/23 17:32	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/17/23 17:32	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/23 17:32	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/23 17:32	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/23 17:32	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/23 17:32	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/23 17:32	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/23 17:32	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/23 17:32	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/23 17:32	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/23 17:32	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 17:32	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 17:32	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 17:32	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 17:32	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/23 17:32	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/23 17:32	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/23 17:32	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/23 17:32	1
2-Hexanone	ND	F1	25	1.4	ug/L			04/17/23 17:32	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/17/23 17:32	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/23 17:32	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/23 17:32	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/23 17:32	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/17/23 17:32	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/23 17:32	1
Naphthalene	ND		5.0	3.0	ug/L			04/17/23 17:32	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/23 17:32	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/23 17:32	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/23 17:32	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/23 17:32	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/23 17:32	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/23 17:32	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW10-ROX-040623
Date Collected: 04/06/23 12:10
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/23 17:32	1
Styrene	ND		1.0	1.0	ug/L			04/17/23 17:32	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/23 17:32	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/23 17:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/23 17:32	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			04/17/23 17:32	1
Toluene	ND		1.0	0.41	ug/L			04/17/23 17:32	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 17:32	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/23 17:32	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/23 17:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/23 17:32	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/23 17:32	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/23 17:32	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/23 17:32	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/23 17:32	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/23 17:32	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/17/23 17:32	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/17/23 17:32	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/23 17:32	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/17/23 17:32	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/23 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*04/17/23 17:32*	*1*
Dibromofluoromethane	*115*		*75 - 126*		*04/17/23 17:32*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*04/17/23 17:32*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.033	ug/L		04/10/23 11:20	04/11/23 17:50	1
Acenaphthylene	ND		0.20	0.046	ug/L		04/10/23 11:20	04/11/23 17:50	1
Anthracene	ND		0.20	0.033	ug/L		04/10/23 11:20	04/11/23 17:50	1
Benzo[a]anthracene	ND		0.20	0.047	ug/L		04/10/23 11:20	04/11/23 17:50	1
Benzo[a]pyrene	ND		0.20	0.043	ug/L		04/10/23 11:20	04/11/23 17:50	1
Benzo[b]fluoranthene	ND		0.20	0.035	ug/L		04/10/23 11:20	04/11/23 17:50	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/10/23 11:20	04/11/23 17:50	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/10/23 11:20	04/11/23 17:50	1
Chrysene	ND		0.20	0.076	ug/L		04/10/23 11:20	04/11/23 17:50	1
Dibenz(a,h)anthracene	ND		0.20	0.051	ug/L		04/10/23 11:20	04/11/23 17:50	1
Fluoranthene	ND		0.20	0.070	ug/L		04/10/23 11:20	04/11/23 17:50	1
Fluorene	ND		0.20	0.11	ug/L		04/10/23 11:20	04/11/23 17:50	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.044	ug/L		04/10/23 11:20	04/11/23 17:50	1
1-Methylnaphthalene	ND		0.20	0.076	ug/L		04/10/23 11:20	04/11/23 17:50	1
2-Methylnaphthalene	ND		0.20	0.061	ug/L		04/10/23 11:20	04/11/23 17:50	1
Phenanthrene	ND		0.20	0.037	ug/L		04/10/23 11:20	04/11/23 17:50	1
Pyrene	ND		0.20	0.041	ug/L		04/10/23 11:20	04/11/23 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/10/23 11:20*	*04/11/23 17:50*	*1*
Nitrobenzene-d5	*103*		*19 - 130*	*04/10/23 11:20*	*04/11/23 17:50*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW10-ROX-040623
Date Collected: 04/06/23 12:10
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*179*	*S1+*	*33 - 138*	*04/10/23 11:20*	*04/11/23 17:50*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 14:21	1
1,4-Dioxane	ND	F1 UJ	10	1.0	ug/L		04/10/23 11:20	04/11/23 14:21	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		04/10/23 11:20	04/11/23 14:21	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		04/10/23 11:20	04/11/23 14:21	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		04/10/23 11:20	04/11/23 14:21	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		04/10/23 11:20	04/11/23 14:21	1
2,4-Dinitrophenol	ND		31	3.5	ug/L		04/10/23 11:20	04/11/23 14:21	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 14:21	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 14:21	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 14:21	1
2-Chlorophenol	ND		10	2.3	ug/L		04/10/23 11:20	04/11/23 14:21	1
2-Methylphenol	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 14:21	1
2-Nitroaniline	ND		10	2.3	ug/L		04/10/23 11:20	04/11/23 14:21	1
2-Nitrophenol	ND		10	5.3	ug/L		04/10/23 11:20	04/11/23 14:21	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		04/10/23 11:20	04/11/23 14:21	1
3,3'-Dichlorobenzidine	ND	*+ F1	10	2.7	ug/L		04/10/23 11:20	04/11/23 14:21	1
3-Nitroaniline	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 14:21	1
4,6-Dinitro-ortho-cresol	ND	UJ	10	1.6	ug/L		04/10/23 11:20	04/11/23 14:21	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/10/23 11:20	04/11/23 14:21	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		04/10/23 11:20	04/11/23 14:21	1
4-Chloroaniline	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 14:21	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 14:21	1
4-Nitroaniline	ND		10	1.5	ug/L		04/10/23 11:20	04/11/23 14:21	1
4-Nitrophenol	ND		10	2.1	ug/L		04/10/23 11:20	04/11/23 14:21	1
Aniline	ND		10	3.9	ug/L		04/10/23 11:20	04/11/23 14:21	1
Benzenethiol	ND	*1 *- UJ	10	1.7	ug/L		04/10/23 11:20	04/11/23 14:21	1
Benzoic acid	ND		31	7.5	ug/L		04/10/23 11:20	04/11/23 14:21	1
Benzyl alcohol	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 14:21	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 14:21	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 14:21	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		04/10/23 11:20	04/11/23 14:21	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		04/10/23 11:20	04/11/23 14:21	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/10/23 11:20	04/11/23 14:21	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 14:21	1
Dibenzofuran	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 14:21	1
Diethyl phthalate	**0.33**	**J**	10	0.25	ug/L		04/10/23 11:20	04/11/23 14:21	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 14:21	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		04/10/23 11:20	04/11/23 14:21	1
Di-n-octyl phthalate	**3.4**	**J**	10	0.17	ug/L		04/10/23 11:20	04/11/23 14:21	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 14:21	1
Hexachlorocyclopentadiene	ND	UJ	20	2.7	ug/L		04/10/23 11:20	04/11/23 14:21	1
Hexachloroethane	ND		10	4.3	ug/L		04/10/23 11:20	04/11/23 14:21	1
Indene	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 14:21	1
Isophorone	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 14:21	1

Client Sample ID: MW10-ROX-040623
Date Collected: 04/06/23 12:10
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		10	0.13	ug/L		04/10/23 11:20	04/11/23 14:21	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		04/10/23 11:20	04/11/23 14:21	1
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		04/10/23 11:20	04/11/23 14:21	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/10/23 11:20	04/11/23 14:21	1
Pentachlorophenol	ND		20	1.4	ug/L		04/10/23 11:20	04/11/23 14:21	1
Phenol	ND		10	2.7	ug/L		04/10/23 11:20	04/11/23 14:21	1
Pyridine	ND		10	3.3	ug/L		04/10/23 11:20	04/11/23 14:21	1
Quinoline	ND		10	4.6	ug/L		04/10/23 11:20	04/11/23 14:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*04/10/23 11:20*	*04/11/23 14:21*	*1*
2-Fluorophenol	*28*		*13 - 113*	*04/10/23 11:20*	*04/11/23 14:21*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*04/10/23 11:20*	*04/11/23 14:21*	*1*
Phenol-d5	*67*		*17 - 127*	*04/10/23 11:20*	*04/11/23 14:21*	*1*
Terphenyl-d14	*99*		*44 - 149*	*04/10/23 11:20*	*04/11/23 14:21*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*04/10/23 11:20*	*04/11/23 14:21*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	F1	0.029	0.016	ug/L		04/13/23 12:10	04/14/23 20:26	1
1,2-D bromoethane	ND		0.019	0.014	ug/L		04/13/23 12:10	04/14/23 20:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*04/13/23 12:10*	*04/14/23 20:26*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: MW11-ROX-040623
Date Collected: 04/06/23 13:25
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/17/23 20:50	1
Acrolein	ND		20	3.3	ug/L			04/17/23 20:50	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/23 20:50	1
Benzene	**0.33**	**J**	1.0	0.13	ug/L			04/17/23 20:50	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/23 20:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/23 20:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/23 20:50	1
Bromoform	ND		5.0	0.25	ug/L			04/17/23 20:50	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/23 20:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/23 20:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/23 20:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/23 20:50	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/17/23 20:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/23 20:50	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/23 20:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/17/23 20:50	1
Chloroform	ND		1.0	1.0	ug/L			04/17/23 20:50	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/17/23 20:50	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/23 20:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/23 20:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/23 20:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/23 20:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/23 20:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/23 20:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/23 20:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/23 20:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/23 20:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 20:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 20:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 20:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 20:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/23 20:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/23 20:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/23 20:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/23 20:50	1
2-Hexanone	ND		25	1.4	ug/L			04/17/23 20:50	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/17/23 20:50	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/23 20:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/23 20:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/23 20:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/17/23 20:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/23 20:50	1
Naphthalene	ND		5.0	3.0	ug/L			04/17/23 20:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/23 20:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/23 20:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/23 20:50	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/23 20:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/23 20:50	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/23 20:50	1

Client Sample ID: MW11-ROX-040623
Date Collected: 04/06/23 13:25
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/23 20:50	1
Styrene	ND		1.0	1.0	ug/L			04/17/23 20:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/23 20:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/23 20:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/23 20:50	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			04/17/23 20:50	1
Toluene	ND		1.0	0.41	ug/L			04/17/23 20:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 20:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/23 20:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/23 20:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/23 20:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/23 20:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/23 20:50	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/23 20:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/23 20:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/23 20:50	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/17/23 20:50	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/17/23 20:50	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/23 20:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/17/23 20:50	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/23 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/17/23 20:50*	*1*
Dibromofluoromethane	*120*		*75 - 126*		*04/17/23 20:50*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/17/23 20:50*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/10/23 11:20	04/11/23 18:41	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/10/23 11:20	04/11/23 18:41	1
Anthracene	ND		0.20	0.031	ug/L		04/10/23 11:20	04/11/23 18:41	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/10/23 11:20	04/11/23 18:41	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/10/23 11:20	04/11/23 18:41	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/10/23 11:20	04/11/23 18:41	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/10/23 11:20	04/11/23 18:41	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/10/23 11:20	04/11/23 18:41	1
Chrysene	ND		0.20	0.072	ug/L		04/10/23 11:20	04/11/23 18:41	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/10/23 11:20	04/11/23 18:41	1
Fluoranthene	ND		0.20	0.066	ug/L		04/10/23 11:20	04/11/23 18:41	1
Fluorene	ND		0.20	0.11	ug/L		04/10/23 11:20	04/11/23 18:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/10/23 11:20	04/11/23 18:41	1
1-Methylnaphthalene	ND		0.20	0.072	ug/L		04/10/23 11:20	04/11/23 18:41	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/10/23 11:20	04/11/23 18:41	1
Phenanthrene	ND		0.20	0.035	ug/L		04/10/23 11:20	04/11/23 18:41	1
Pyrene	ND		0.20	0.039	ug/L		04/10/23 11:20	04/11/23 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*100*		*15 - 122*	*04/10/23 11:20*	*04/11/23 18:41*	*1*
Nitrobenzene-d5	*92*		*19 - 130*	*04/10/23 11:20*	*04/11/23 18:41*	*1*

Client Sample ID: MW11-ROX-040623
Date Collected: 04/06/23 13:25
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*155*	*S1+*	*33 - 138*	*04/10/23 11:20*	*04/11/23 18:41*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/10/23 11:20	04/11/23 15:26	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/10/23 11:20	04/11/23 15:26	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/10/23 11:20	04/11/23 15:26	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/10/23 11:20	04/11/23 15:26	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/10/23 11:20	04/11/23 15:26	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/10/23 11:20	04/11/23 15:26	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/10/23 11:20	04/11/23 15:26	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/10/23 11:20	04/11/23 15:26	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/10/23 11:20	04/11/23 15:26	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/10/23 11:20	04/11/23 15:26	1
2-Chlorophenol	ND		9.8	2.1	ug/L		04/10/23 11:20	04/11/23 15:26	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/10/23 11:20	04/11/23 15:26	1
2-Nitroaniline	ND		9.8	2.1	ug/L		04/10/23 11:20	04/11/23 15:26	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/10/23 11:20	04/11/23 15:26	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/10/23 11:20	04/11/23 15:26	1
3,3'-Dichlorobenzidine	ND	*+	9.8	2.5	ug/L		04/10/23 11:20	04/11/23 15:26	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/10/23 11:20	04/11/23 15:26	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.8	1.6	ug/L		04/10/23 11:20	04/11/23 15:26	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/10/23 11:20	04/11/23 15:26	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/10/23 11:20	04/11/23 15:26	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/10/23 11:20	04/11/23 15:26	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/10/23 11:20	04/11/23 15:26	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/10/23 11:20	04/11/23 15:26	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/10/23 11:20	04/11/23 15:26	1
Aniline	ND		9.8	3.7	ug/L		04/10/23 11:20	04/11/23 15:26	1
Benzenethiol	ND	*1 *- UJ	9.8	1.7	ug/L		04/10/23 11:20	04/11/23 15:26	1
Benzoic acid	ND		29	7.1	ug/L		04/10/23 11:20	04/11/23 15:26	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/10/23 11:20	04/11/23 15:26	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/10/23 11:20	04/11/23 15:26	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/10/23 11:20	04/11/23 15:26	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/10/23 11:20	04/11/23 15:26	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/10/23 11:20	04/11/23 15:26	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/10/23 11:20	04/11/23 15:26	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/10/23 11:20	04/11/23 15:26	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 15:26	1
Diethyl phthalate	**0.44**	**J**	9.8	0.23	ug/L		04/10/23 11:20	04/11/23 15:26	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 15:26	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/10/23 11:20	04/11/23 15:26	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 15:26	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/10/23 11:20	04/11/23 15:26	1
Hexachlorocyclopentadiene	ND	UJ	20	2.5	ug/L		04/10/23 11:20	04/11/23 15:26	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/10/23 11:20	04/11/23 15:26	1
Indene	ND		9.8	0.98	ug/L		04/10/23 11:20	04/11/23 15:26	1
Isophorone	ND		9.8	0.14	ug/L		04/10/23 11:20	04/11/23 15:26	1

Client Sample ID: MW11-ROX-040623

Date Collected: 04/06/23 13:25
Date Received: 04/07/23 09:53

Lab Sample ID: 400-235763-6

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		9.8	0.13	ug/L		04/10/23 11:20	04/11/23 15:26	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/10/23 11:20	04/11/23 15:26	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/10/23 11:20	04/11/23 15:26	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/10/23 11:20	04/11/23 15:26	1
Pentachlorophenol	ND		20	1.4	ug/L		04/10/23 11:20	04/11/23 15:26	1
Phenol	ND		9.8	2.5	ug/L		04/10/23 11:20	04/11/23 15:26	1
Pyridine	ND		9.8	3.1	ug/L		04/10/23 11:20	04/11/23 15:26	1
Quinoline	ND		9.8	4.4	ug/L		04/10/23 11:20	04/11/23 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*04/10/23 11:20*	*04/11/23 15:26*	*1*
2-Fluorophenol	*46*		*13 - 113*	*04/10/23 11:20*	*04/11/23 15:26*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/10/23 11:20*	*04/11/23 15:26*	*1*
Phenol-d5	*71*		*17 - 127*	*04/10/23 11:20*	*04/11/23 15:26*	*1*
Terphenyl-d14	*96*		*44 - 149*	*04/10/23 11:20*	*04/11/23 15:26*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*04/10/23 11:20*	*04/11/23 15:26*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/13/23 12:10	04/14/23 21:27	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/13/23 12:10	04/14/23 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/13/23 12:10*	*04/14/23 21:27*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-235763-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-235763-1	TB-ROX-040623-8260	92	118	105
400-235763-3	MW1-ROX-040623-EB	90	103	92
400-235763-4	MW1-ROX-040623	92	118	103
400-235763-5	MW10-ROX-040623	91	115	103
400-235763-5 MS	MW10-ROX-040623	89	114	99
400-235763-5 MSD	MW10-ROX-040623	91	113	101
400-235763-6	MW11-ROX-040623	92	120	102
LCS 400-621105/1002	Lab Control Sample	89	116	99
LCS 400-621585/1002	Lab Control Sample	92	96	97
MB 400-621105/4	Method Blank	92	115	102
MB 400-621585/4	Method Blank	92	106	94

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-235763-3	MW1-ROX-040623-EB	86	45	81	74	100	76
400-235763-4	MW1-ROX-040623	82	36	76	59	95	66
400-235763-5	MW10-ROX-040623	85	28	80	67	99	77
400-235763-5 MS	MW10-ROX-040623	81	26	84	64	92	89
400-235763-5 MSD	MW10-ROX-040623	85	39	88	75	96	97
400-235763-6	MW11-ROX-040623	82	46	78	71	96	73
LCS 400-620225/2-A	Lab Control Sample	83	54	85	78	93	95
LCS 400-620225/5-A	Lab Control Sample	88	45	81	74	105	55
LCSD 400-620225/6-A	Lab Control Sample Dup	91	42	84	73	108	75
MB 400-620225/1-A	Method Blank	90	23	84	64	110	78

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-235763-3	MW1-ROX-040623-EB	105	99	171 S1+
400-235763-4	MW1-ROX-040623	110	94	163 S1+
400-235763-5	MW10-ROX-040623	110	103	179 S1+

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-235763-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-235763-5 MS	MW10-ROX-040623	82	72	107
400-235763-5 MSD	MW10-ROX-040623	79	66	106
400-235763-6	MW11-ROX-040623	100	92	155 S1+
LCS 400-620225/2-A	Lab Control Sample	80	77	114
MB 400-620225/1-A	Method Blank	121	106	193 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-235763-2	TB-ROX-040623-8011	112
400-235763-3	MW1-ROX-040623-EB	119
400-235763-4	MW1-ROX-040623	117
400-235763-5	MW10-ROX-040623	118
400-235763-5 MS	MW10-ROX-040623	107
400-235763-5 MSD	MW10-ROX-040623	110
400-235763-6	MW11-ROX-040623	112
LCS 400-620706/2-A	Lab Control Sample	96
LCSD 400-620706/3-A	Lab Control Sample Dup	88
MB 400-620706/1-A	Method Blank	84

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235763-1

Client Sample ID: TB-ROX-040623-8260
Lab Sample ID: 400-235763-1
Date Collected: 04/06/23 12:00
Matrix: Water
Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 19:36	JE	EET PEN

Client Sample ID: TB-ROX-040623-8011
Lab Sample ID: 400-235763-2
Date Collected: 04/06/23 12:00
Matrix: Water
Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.6 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 19:04	PG	EET PEN

Client Sample ID: MW1-ROX-040623-EB
Lab Sample ID: 400-235763-3
Date Collected: 04/06/23 08:50
Matrix: Water
Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621585	04/20/23 15:00	AGW	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 14:42	VC1	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620348	04/11/23 18:07	KJA	EET PEN
Total/NA	Prep	8011			35.9 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 19:24	PG	EET PEN

Client Sample ID: MW1-ROX-040623
Lab Sample ID: 400-235763-4
Date Collected: 04/06/23 10:45
Matrix: Water
Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 20:26	JE	EET PEN
Total/NA	Prep	3520C			249.4 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 15:04	VC1	EET PEN
Total/NA	Prep	3520C			249.4 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620348	04/11/23 18:24	KJA	EET PEN
Total/NA	Prep	8011			37 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 20:05	PG	EET PEN

Client Sample ID: MW10-ROX-040623
Lab Sample ID: 400-235763-5
Date Collected: 04/06/23 12:10
Matrix: Water
Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 17:32	JE	EET PEN
Total/NA	Prep	3520C			244.4 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 14:21	VC1	EET PEN

Client Sample ID: MW10-ROX-040623

Lab Sample ID: 400-235763-5

Date Collected: 04/06/23 12:10

Matrix: Water

Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			244.4 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620348	04/11/23 17:50	KJA	EET PEN
Total/NA	Prep	8011			36.4 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 20:26	PG	EET PEN

Client Sample ID: MW11-ROX-040623

Lab Sample ID: 400-235763-6

Date Collected: 04/06/23 13:25

Matrix: Water

Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 20:50	JE	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 15:26	VC1	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620348	04/11/23 18:41	KJA	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 21:27	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-620225/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 12:09	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620348	04/11/23 16:41	KJA	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-620706/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 16:19	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621105/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 17:07	JE	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621585/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621585	04/20/23 11:02	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620225/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 13:15	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	620348	04/11/23 16:58	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620225/5-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 12:31	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620706/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 16:39	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621105/1002

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 16:06	JE	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621585/1002

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621585	04/20/23 09:30	AGW	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-235763-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-620225/6-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 12:53	VC1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-620706/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 17:00	PG	EET PEN

Client Sample ID: MW10-ROX-040623
Lab Sample ID: 400-235763-5 MS
Date Collected: 04/06/23 12:10
Matrix: Water
Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 17:56	JE	EET PEN
Total/NA	Prep	3520C			248 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 13:37	VC1	EET PEN
Total/NA	Prep	3520C			248 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	620348	04/11/23 17:15	KJA	EET PEN
Total/NA	Prep	8011			35.9 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 20:46	PG	EET PEN

Client Sample ID: MW10-ROX-040623
Lab Sample ID: 400-235763-5 MSD
Date Collected: 04/06/23 12:10
Matrix: Water
Date Received: 04/07/23 09:53

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621105	04/17/23 18:21	JE	EET PEN
Total/NA	Prep	3520C			257.2 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 13:59	VC1	EET PEN
Total/NA	Prep	3520C			257.2 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	620348	04/11/23 17:32	KJA	EET PEN
Total/NA	Prep	8011			35.6 mL	35 mL	620706	04/13/23 12:10	PG	EET PEN
Total/NA	Analysis	8011		1			620882	04/14/23 21:07	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 621105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-1	TB-ROX-040623-8260	Total/NA	Water	8260B	
400-235763-4	MW1-ROX-040623	Total/NA	Water	8260B	
400-235763-5	MW10-ROX-040623	Total/NA	Water	8260B	
400-235763-6	MW11-ROX-040623	Total/NA	Water	8260B	
MB 400-621105/4	Method Blank	Total/NA	Water	8260B	
LCS 400-621105/1002	Lab Control Sample	Total/NA	Water	8260B	
400-235763-5 MS	MW10-ROX-040623	Total/NA	Water	8260B	
400-235763-5 MSD	MW10-ROX-040623	Total/NA	Water	8260B	

Analysis Batch: 621585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-3	MW1-ROX-040623-EB	Total/NA	Water	8260B	
MB 400-621585/4	Method Blank	Total/NA	Water	8260B	
LCS 400-621585/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 620225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-3	MW1-ROX-040623-EB	Total/NA	Water	3520C	
400-235763-4	MW1-ROX-040623	Total/NA	Water	3520C	
400-235763-5	MW10-ROX-040623	Total/NA	Water	3520C	
400-235763-6	MW11-ROX-040623	Total/NA	Water	3520C	
MB 400-620225/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-620225/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-620225/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-620225/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-235763-5 MS	MW10-ROX-040623	Total/NA	Water	3520C	
400-235763-5 MSD	MW10-ROX-040623	Total/NA	Water	3520C	

Analysis Batch: 620348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-3	MW1-ROX-040623-EB	Total/NA	Water	8270D LL	620225
400-235763-4	MW1-ROX-040623	Total/NA	Water	8270D LL	620225
400-235763-5	MW10-ROX-040623	Total/NA	Water	8270D LL	620225
400-235763-6	MW11-ROX-040623	Total/NA	Water	8270D LL	620225
MB 400-620225/1-A	Method Blank	Total/NA	Water	8270D LL	620225
LCS 400-620225/2-A	Lab Control Sample	Total/NA	Water	8270D LL	620225
400-235763-5 MS	MW10-ROX-040623	Total/NA	Water	8270D LL	620225
400-235763-5 MSD	MW10-ROX-040623	Total/NA	Water	8270D LL	620225

Analysis Batch: 620356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-3	MW1-ROX-040623-EB	Total/NA	Water	8270D	620225
400-235763-4	MW1-ROX-040623	Total/NA	Water	8270D	620225
400-235763-5	MW10-ROX-040623	Total/NA	Water	8270D	620225
400-235763-6	MW11-ROX-040623	Total/NA	Water	8270D	620225
MB 400-620225/1-A	Method Blank	Total/NA	Water	8270D	620225
LCS 400-620225/2-A	Lab Control Sample	Total/NA	Water	8270D	620225
LCS 400-620225/5-A	Lab Control Sample	Total/NA	Water	8270D	620225
LCSD 400-620225/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	620225

GC/MS Semi VOA (Continued)

Analysis Batch: 620356 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-5 MS	MW10-ROX-040623	Total/NA	Water	8270D	620225
400-235763-5 MSD	MW10-ROX-040623	Total/NA	Water	8270D	620225

GC Semi VOA

Prep Batch: 620706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-2	TB-ROX-040623-8011	Total/NA	Water	8011	
400-235763-3	MW1-ROX-040623-EB	Total/NA	Water	8011	
400-235763-4	MW1-ROX-040623	Total/NA	Water	8011	
400-235763-5	MW10-ROX-040623	Total/NA	Water	8011	
400-235763-6	MW11-ROX-040623	Total/NA	Water	8011	
MB 400-620706/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-620706/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-620706/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-235763-5 MS	MW10-ROX-040623	Total/NA	Water	8011	
400-235763-5 MSD	MW10-ROX-040623	Total/NA	Water	8011	

Analysis Batch: 620882

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235763-2	TB-ROX-040623-8011	Total/NA	Water	8011	620706
400-235763-3	MW1-ROX-040623-EB	Total/NA	Water	8011	620706
400-235763-4	MW1-ROX-040623	Total/NA	Water	8011	620706
400-235763-5	MW10-ROX-040623	Total/NA	Water	8011	620706
400-235763-6	MW11-ROX-040623	Total/NA	Water	8011	620706
MB 400-620706/1-A	Method Blank	Total/NA	Water	8011	620706
LCS 400-620706/2-A	Lab Control Sample	Total/NA	Water	8011	620706
LCSD 400-620706/3-A	Lab Control Sample Dup	Total/NA	Water	8011	620706
400-235763-5 MS	MW10-ROX-040623	Total/NA	Water	8011	620706
400-235763-5 MSD	MW10-ROX-040623	Total/NA	Water	8011	620706

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621105/4
Matrix: Water
Analysis Batch: 621105

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/17/23 17:07	1
Acrolein	ND		20	3.3	ug/L			04/17/23 17:07	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/23 17:07	1
Benzene	ND		1.0	0.13	ug/L			04/17/23 17:07	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/23 17:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/23 17:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/23 17:07	1
Bromoform	ND		5.0	0.25	ug/L			04/17/23 17:07	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/23 17:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/23 17:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/23 17:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/23 17:07	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/17/23 17:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/23 17:07	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/23 17:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/17/23 17:07	1
Chloroform	ND		1.0	1.0	ug/L			04/17/23 17:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/17/23 17:07	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/23 17:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/23 17:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/23 17:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/23 17:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/23 17:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/23 17:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/23 17:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/23 17:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/23 17:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 17:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 17:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 17:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/23 17:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/23 17:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/23 17:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/23 17:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/23 17:07	1
2-Hexanone	ND		25	1.4	ug/L			04/17/23 17:07	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/17/23 17:07	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/23 17:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/23 17:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/23 17:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/17/23 17:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/23 17:07	1
Naphthalene	ND		5.0	3.0	ug/L			04/17/23 17:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/23 17:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/23 17:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/23 17:07	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/23 17:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/23 17:07	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621105/4
Matrix: Water
Analysis Batch: 621105

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/23 17:07	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/23 17:07	1
Styrene	ND		1.0	1.0	ug/L			04/17/23 17:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/23 17:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/23 17:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/23 17:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/17/23 17:07	1
Toluene	ND		1.0	0.41	ug/L			04/17/23 17:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/23 17:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/23 17:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/23 17:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/23 17:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/23 17:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/23 17:07	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/23 17:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/23 17:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/23 17:07	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/17/23 17:07	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/17/23 17:07	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/23 17:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/17/23 17:07	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/23 17:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/17/23 17:07*	*1*
Dibromofluoromethane	*115*		*75 - 126*		*04/17/23 17:07*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/17/23 17:07*	*1*

Lab Sample ID: LCS 400-621105/1002
Matrix: Water
Analysis Batch: 621105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	358	*+	ug/L		179	43 - 160
Acrolein	500	515		ug/L		103	38 - 160
Acrylonitrile	500	590		ug/L		118	64 - 142
Benzene	50.0	45.7		ug/L		91	70 - 130
Bromobenzene	50.0	46.9		ug/L		94	70 - 132
Bromochloromethane	50.0	47.3		ug/L		95	70 - 130
Bromodichloromethane	50.0	50.1		ug/L		100	67 - 133
Bromoform	50.0	45.5		ug/L		91	57 - 140
Bromomethane	50.0	65.7		ug/L		131	10 - 160
2-Butanone (MEK)	200	187		ug/L		94	61 - 145
Carbon disulfide	50.0	39.7		ug/L		79	61 - 137
Carbon tetrachloride	50.0	58.0		ug/L		116	61 - 137
Chlorobenzene	50.0	49.2		ug/L		98	70 - 130
Dibromochloromethane	50.0	50.8		ug/L		102	67 - 135
Chloroethane	50.0	45.9		ug/L		92	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621105/1002
Matrix: Water
Analysis Batch: 621105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	41.6		ug/L		83	10 - 160
Chloroform	50.0	52.8		ug/L		106	69 - 130
1-Chlorohexane	50.0	67.2	*+	ug/L		134	69 - 130
Chloromethane	50.0	54.2		ug/L		108	58 - 137
cis-1,2-Dichloroethene	50.0	55.1		ug/L		110	68 - 130
cis-1,3-Dichloropropene	50.0	43.0		ug/L		86	69 - 132
1,2-Dichlorobenzene	50.0	51.9		ug/L		104	67 - 130
1,3-Dichlorobenzene	50.0	49.9		ug/L		100	70 - 130
1,4-Dichlorobenzene	50.0	50.3		ug/L		101	70 - 130
Dichlorodifluoromethane	50.0	31.6		ug/L		63	41 - 146
1,1-Dichloroethane	50.0	51.9		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	63.2		ug/L		126	69 - 130
1,1-Dichloroethene	50.0	44.2		ug/L		88	63 - 134
1,2-Dichloropropane	50.0	48.9		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	46.0		ug/L		92	70 - 130
2,2-Dichloropropane	50.0	49.2		ug/L		98	52 - 135
1,1-Dichloropropene	50.0	48.0		ug/L		96	70 - 130
Ethylbenzene	50.0	50.1		ug/L		100	70 - 130
Ethyl methacrylate	50.0	42.7		ug/L		85	68 - 130
Hexachlorobutadiene	50.0	63.9		ug/L		128	53 - 140
2-Hexanone	200	263		ug/L		132	65 - 137
Isopropy benzene	50.0	52.6		ug/L		105	70 - 130
Methylene bromide	50.0	49.1		ug/L		98	70 - 130
Methylene Chloride	50.0	46.1		ug/L		92	66 - 135
4-Methyl-2-pentanone (MIBK)	200	258		ug/L		129	69 - 138
Methyl tert-butyl ether	50.0	47.1		ug/L		94	66 - 130
m-Xylene & p-Xylene	50.0	51.5		ug/L		103	70 - 130
Naphthalene	50.0	43.2		ug/L		86	47 - 149
n-Butylbenzene	50.0	56.4		ug/L		113	67 - 130
N-Propylbenzene	50.0	48.7		ug/L		97	70 - 130
o-Chlorotoluene	50.0	50.1		ug/L		100	70 - 130
o-Xylene	50.0	50.8		ug/L		102	70 - 130
p-Chlorotoluene	50.0	50.2		ug/L		100	70 - 130
p-Isopropyltoluene	50.0	52.7		ug/L		105	65 - 130
sec-Butylbenzene	50.0	51.7		ug/L		103	66 - 130
Styrene	50.0	49.7		ug/L		99	70 - 130
tert-Butylbenzene	50.0	54.3		ug/L		109	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.6		ug/L		103	67 - 131
1,1,2,2-Tetrachloroethane	50.0	40.0		ug/L		80	70 - 131
Tetrachloroethene	50.0	70.2	*+	ug/L		140	65 - 130
Toluene	50.0	47.0		ug/L		94	70 - 130
trans-1,2-Dichloroethene	50.0	46.3		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	45.8		ug/L		92	63 - 130
1,2,3-Trichlorobenzene	50.0	48.7		ug/L		97	60 - 138
1,2,4-Trichlorobenzene	50.0	47.1		ug/L		94	60 - 140
1,1,1-Trichloroethane	50.0	55.4		ug/L		111	68 - 130
1,1,2-Trichloroethane	50.0	46.2		ug/L		92	70 - 130
Trichloroethene	50.0	46.2		ug/L		92	70 - 130
Trichlorofluoromethane	50.0	51.7		ug/L		103	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621105/1002
Matrix: Water
Analysis Batch: 621105

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichloropropane			50.0	44.5		ug/L		89	70 - 130		
1,2,4-Trimethy benzene			50.0	50.5		ug/L		101	70 - 130		
1,3,5-Trimethy benzene			50.0	50.5		ug/L		101	69 - 130		
Vinyl acetate			100	76.7		ug/L		77	26 - 160		
Vinyl chloride			50.0	41.9		ug/L		84	59 - 136		
Xylenes, Total			100	102		ug/L		102	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*116*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: 400-235763-5 MS
Matrix: Water
Analysis Batch: 621105

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Acetone	ND	*+ F1	200	305	F1	ug/L		152	43 - 150		
Acrolein	ND		500	636		ug/L		127	38 - 150		
Acrylonitrile	ND		500	659		ug/L		132	62 - 149		
Benzene	0.73	J	50.0	49.5		ug/L		98	56 - 142		
Bromobenzene	ND		50.0	50.7		ug/L		101	59 - 136		
Bromochloromethane	ND		50.0	53.2		ug/L		106	64 - 140		
Bromodichloromethane	ND		50.0	56.8		ug/L		114	59 - 143		
Bromoform	ND		50.0	51.5		ug/L		103	50 - 140		
Bromomethane	ND		50.0	75.0		ug/L		150	10 - 150		
2-Butanone (MEK)	ND		200	196		ug/L		98	55 - 150		
Carbon disulfide	ND		50.0	41.6		ug/L		83	48 - 150		
Carbon tetrachloride	ND		50.0	60.7		ug/L		121	55 - 145		
Chlorobenzene	ND		50.0	53.1		ug/L		106	64 - 130		
Dibromochloromethane	ND		50.0	56.9		ug/L		114	56 - 143		
Chloroethane	ND		50.0	49.7		ug/L		99	50 - 150		
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150		
Chloroform	ND		50.0	59.1		ug/L		118	60 - 141		
1-Chlorohexane	ND	*+	50.0	65.4		ug/L		131	56 - 136		
Chloromethane	ND		50.0	59.3		ug/L		119	49 - 148		
cis-1,2-Dichloroethene	ND		50.0	60.4		ug/L		121	59 - 143		
cis-1,3-Dichloropropene	ND		50.0	47.4		ug/L		95	57 - 140		
1,2-Dichlorobenzene	ND		50.0	55.9		ug/L		112	52 - 137		
1,3-Dichlorobenzene	ND		50.0	52.0		ug/L		104	54 - 135		
1,4-Dichlorobenzene	ND		50.0	53.5		ug/L		107	53 - 135		
Dichlorodifluoromethane	ND		50.0	34.7		ug/L		69	16 - 150		
1,1-Dichloroethane	ND		50.0	57.1		ug/L		114	61 - 144		
1,2-Dichloroethane	ND		50.0	67.7		ug/L		135	60 - 141		
1,1-Dichloroethene	ND		50.0	46.8		ug/L		94	54 - 147		
1,2-Dichloropropane	ND		50.0	55.0		ug/L		110	66 - 137		
1,3-Dichloropropane	ND		50.0	52.2		ug/L		104	66 - 133		
2,2-Dichloropropane	ND		50.0	54.6		ug/L		109	42 - 144		

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235763-5 MS
Matrix: Water
Analysis Batch: 621105

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	ND		50.0	49.8		ug/L		100	65 - 136
Ethylbenzene	ND		50.0	52.7		ug/L		105	58 - 131
Ethyl methacrylate	ND		50.0	48.2		ug/L		96	64 - 130
Hexachlorobutadiene	ND		50.0	58.1		ug/L		116	31 - 149
2-Hexanone	ND	F1	200	285	F1	ug/L		142	65 - 140
Isopropy benzene	ND		50.0	52.3		ug/L		105	56 - 133
Methylene bromide	ND		50.0	56.9		ug/L		114	63 - 138
Methylene Chloride	ND		50.0	50.7		ug/L		101	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	284		ug/L		142	63 - 146
Methyl tert-butyl ether	ND		50.0	52.4		ug/L		105	59 - 137
m-Xylene & p-Xylene	ND		50.0	53.2		ug/L		106	57 - 130
Naphthalene	ND		50.0	48.3		ug/L		97	25 - 150
n-Butylbenzene	ND		50.0	53.5		ug/L		107	41 - 142
N-Propylbenzene	ND		50.0	48.5		ug/L		97	51 - 138
o-Chlorotoluene	ND		50.0	51.4		ug/L		103	53 - 134
o-Xylene	ND		50.0	53.3		ug/L		107	61 - 130
p-Chlorotoluene	ND		50.0	52.3		ug/L		105	54 - 133
p-Isopropyltoluene	ND		50.0	50.6		ug/L		101	48 - 139
sec-Butylbenzene	ND		50.0	49.3		ug/L		99	50 - 138
Styrene	ND		50.0	53.3		ug/L		107	58 - 131
tert-Butylbenzene	ND		50.0	52.2		ug/L		104	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	55.5		ug/L		111	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	47.1		ug/L		94	66 - 135
Tetrachloroethene	ND	*+	50.0	56.7		ug/L		113	52 - 133
Toluene	ND		50.0	50.5		ug/L		101	65 - 130
trans-1,2-Dichloroethene	ND		50.0	49.8		ug/L		100	61 - 143
trans-1,3-Dichloropropene	ND		50.0	52.3		ug/L		105	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	54.2		ug/L		108	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	51.9		ug/L		104	39 - 148
1,1,1-Trichloroethane	ND		50.0	59.4		ug/L		119	57 - 142
1,1,2-Trichloroethane	ND		50.0	51.6		ug/L		103	66 - 131
Trichloroethene	ND		50.0	50.2		ug/L		100	64 - 136
Trichlorofluoromethane	ND		50.0	56.9		ug/L		114	54 - 150
1,2,3-Trichloropropane	ND		50.0	51.2		ug/L		102	65 - 133
1,2,4-Trimethy benzene	ND		50.0	51.2		ug/L		102	50 - 139
1,3,5-Trimethy benzene	ND		50.0	50.9		ug/L		102	52 - 135
Vinyl acetate	ND		100	105		ug/L		105	26 - 150
Vinyl chloride	ND		50.0	45.3		ug/L		91	46 - 150
Xylenes, Total	ND		100	106		ug/L		106	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*114*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235763-5 MSD
Matrix: Water
Analysis Batch: 621105

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND	*+ F1	200	282		ug/L		141	43 - 150	8	30
Acrolein	ND		500	627		ug/L		125	38 - 150	1	31
Acrylonitrile	ND		500	625		ug/L		125	62 - 149	5	30
Benzene	0.73	J	50.0	47.2		ug/L		93	56 - 142	5	30
Bromobenzene	ND		50.0	47.9		ug/L		96	59 - 136	6	30
Bromochloromethane	ND		50.0	48.8		ug/L		98	64 - 140	9	30
Bromodichloromethane	ND		50.0	52.4		ug/L		105	59 - 143	8	30
Bromoform	ND		50.0	48.8		ug/L		98	50 - 140	5	30
Bromomethane	ND		50.0	73.1		ug/L		146	10 - 150	3	50
2-Butanone (MEK)	ND		200	187		ug/L		93	55 - 150	5	30
Carbon disulfide	ND		50.0	41.5		ug/L		83	48 - 150	0	30
Carbon tetrachloride	ND		50.0	58.2		ug/L		116	55 - 145	4	30
Chlorobenzene	ND		50.0	50.3		ug/L		101	64 - 130	5	30
Dibromochloromethane	ND		50.0	54.2		ug/L		108	56 - 143	5	30
Chloroethane	ND		50.0	52.2		ug/L		104	50 - 150	5	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	54.6		ug/L		109	60 - 141	8	30
1-Chlorohexane	ND	*+	50.0	63.7		ug/L		127	56 - 136	3	30
Chloromethane	ND		50.0	62.3		ug/L		125	49 - 148	5	31
cis-1,2-Dichloroethene	ND		50.0	57.4		ug/L		115	59 - 143	5	30
cis-1,3-Dichloropropene	ND		50.0	44.7		ug/L		89	57 - 140	6	30
1,2-Dichlorobenzene	ND		50.0	51.7		ug/L		103	52 - 137	8	30
1,3-Dichlorobenzene	ND		50.0	49.1		ug/L		98	54 - 135	6	30
1,4-Dichlorobenzene	ND		50.0	49.2		ug/L		98	53 - 135	8	30
Dichlorodifluoromethane	ND		50.0	39.7		ug/L		79	16 - 150	13	31
1,1-Dichloroethane	ND		50.0	54.5		ug/L		109	61 - 144	5	30
1,2-Dichloroethane	ND		50.0	62.4		ug/L		125	60 - 141	8	30
1,1-Dichloroethene	ND		50.0	48.1		ug/L		96	54 - 147	3	30
1,2-Dichloropropane	ND		50.0	51.1		ug/L		102	66 - 137	7	30
1,3-Dichloropropane	ND		50.0	49.8		ug/L		100	66 - 133	5	30
2,2-Dichloropropane	ND		50.0	52.8		ug/L		106	42 - 144	4	31
1,1-Dichloropropene	ND		50.0	48.7		ug/L		97	65 - 136	2	30
Ethylbenzene	ND		50.0	50.1		ug/L		100	58 - 131	5	30
Ethyl methacrylate	ND		50.0	46.7		ug/L		93	64 - 130	3	30
Hexachlorobutadiene	ND		50.0	55.2		ug/L		110	31 - 149	5	36
2-Hexanone	ND	F1	200	272		ug/L		136	65 - 140	5	30
Isopropy benzene	ND		50.0	50.4		ug/L		101	56 - 133	4	30
Methylene bromide	ND		50.0	52.6		ug/L		105	63 - 138	8	30
Methylene Chloride	ND		50.0	49.3		ug/L		99	60 - 146	3	32
4-Methyl-2-pentanone (MIBK)	ND		200	263		ug/L		131	63 - 146	8	30
Methyl tert-butyl ether	ND		50.0	50.8		ug/L		102	59 - 137	3	30
m-Xylene & p-Xylene	ND		50.0	50.7		ug/L		101	57 - 130	5	30
Naphthalene	ND		50.0	46.7		ug/L		93	25 - 150	3	30
n-Butylbenzene	ND		50.0	51.6		ug/L		103	41 - 142	4	31
N-Propylbenzene	ND		50.0	46.6		ug/L		93	51 - 138	4	30
o-Chlorotoluene	ND		50.0	49.4		ug/L		99	53 - 134	4	30
o-Xylene	ND		50.0	51.0		ug/L		102	61 - 130	4	30
p-Chlorotoluene	ND		50.0	48.6		ug/L		97	54 - 133	7	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235763-5 MSD
Matrix: Water
Analysis Batch: 621105

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	48.2		ug/L		96	48 - 139	5	30
sec-Butylbenzene	ND		50.0	47.6		ug/L		95	50 - 138	3	30
Styrene	ND		50.0	50.6		ug/L		101	58 - 131	5	30
tert-Butylbenzene	ND		50.0	50.9		ug/L		102	54 - 146	2	30
1,1,1,2-Tetrachloroethane	ND		50.0	53.3		ug/L		107	59 - 137	4	30
1,1,2,2-Tetrachloroethane	ND		50.0	44.6		ug/L		89	66 - 135	5	30
Tetrachloroethene	ND	*+	50.0	54.4		ug/L		109	52 - 133	4	30
Toluene	ND		50.0	48.3		ug/L		97	65 - 130	4	30
trans-1,2-Dichloroethene	ND		50.0	48.3		ug/L		97	61 - 143	3	30
trans-1,3-Dichloropropene	ND		50.0	50.6		ug/L		101	53 - 133	3	30
1,2,3-Trichlorobenzene	ND		50.0	50.6		ug/L		101	43 - 145	7	30
1,2,4-Trichlorobenzene	ND		50.0	49.1		ug/L		98	39 - 148	6	30
1,1,1-Trichloroethane	ND		50.0	56.4		ug/L		113	57 - 142	5	30
1,1,2-Trichloroethane	ND		50.0	50.1		ug/L		100	66 - 131	3	30
Trichloroethene	ND		50.0	47.8		ug/L		96	64 - 136	5	30
Trichlorofluoromethane	ND		50.0	59.2		ug/L		118	54 - 150	4	30
1,2,3-Trichloropropane	ND		50.0	47.9		ug/L		96	65 - 133	7	30
1,2,4-Trimethy benzene	ND		50.0	48.4		ug/L		97	50 - 139	6	30
1,3,5-Trimethy benzene	ND		50.0	48.1		ug/L		96	52 - 135	6	30
Vinyl acetate	ND		100	102		ug/L		102	26 - 150	3	33
Vinyl chloride	ND		50.0	50.2		ug/L		100	46 - 150	10	30
Xylenes, Total	ND		100	102		ug/L		102	59 - 130	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*72 - 119*
Dibromofluoromethane	*113*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: MB 400-621585/4
Matrix: Water
Analysis Batch: 621585

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/23 11:02	1
Acrolein	ND		20	3.3	ug/L			04/20/23 11:02	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/23 11:02	1
Benzene	ND		1.0	0.13	ug/L			04/20/23 11:02	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/23 11:02	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/23 11:02	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/23 11:02	1
Bromoform	ND		5.0	0.25	ug/L			04/20/23 11:02	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/23 11:02	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/23 11:02	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/23 11:02	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/23 11:02	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/23 11:02	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/23 11:02	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/23 11:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621585/4
Matrix: Water
Analysis Batch: 621585

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/23 11:02	1
Chloroform	ND		1.0	1.0	ug/L			04/20/23 11:02	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/23 11:02	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/23 11:02	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/23 11:02	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/23 11:02	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/23 11:02	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/23 11:02	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/23 11:02	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/23 11:02	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/23 11:02	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/23 11:02	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/23 11:02	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/23 11:02	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/23 11:02	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/23 11:02	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/23 11:02	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/23 11:02	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/23 11:02	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/23 11:02	1
2-Hexanone	ND		25	1.4	ug/L			04/20/23 11:02	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/20/23 11:02	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/23 11:02	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/23 11:02	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/23 11:02	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/23 11:02	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/23 11:02	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/23 11:02	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/23 11:02	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/23 11:02	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/23 11:02	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/23 11:02	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/23 11:02	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/23 11:02	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/23 11:02	1
Styrene	ND		1.0	1.0	ug/L			04/20/23 11:02	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/23 11:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/23 11:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/23 11:02	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/23 11:02	1
Toluene	ND		1.0	0.41	ug/L			04/20/23 11:02	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/23 11:02	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/23 11:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/23 11:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/23 11:02	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/23 11:02	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/23 11:02	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/23 11:02	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/23 11:02	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621585/4
Matrix: Water
Analysis Batch: 621585

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/23 11:02	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/20/23 11:02	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/20/23 11:02	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/23 11:02	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/23 11:02	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/23 11:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/20/23 11:02*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*04/20/23 11:02*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/20/23 11:02*	*1*

Lab Sample ID: LCS 400-621585/1002
Matrix: Water
Analysis Batch: 621585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	178		ug/L		89	43 - 160
Acrolein	500	414		ug/L		83	38 - 160
Acrylonitrile	500	473		ug/L		95	64 - 142
Benzene	50.0	48.6		ug/L		97	70 - 130
Bromobenzene	50.0	47.8		ug/L		96	70 - 132
Bromochloromethane	50.0	50.4		ug/L		101	70 - 130
Bromodichloromethane	50.0	46.0		ug/L		92	67 - 133
Bromoform	50.0	44.2		ug/L		88	57 - 140
Bromomethane	50.0	37.3		ug/L		75	10 - 160
2-Butanone (MEK)	200	181		ug/L		91	61 - 145
Carbon disulfide	50.0	46.2		ug/L		92	61 - 137
Carbon tetrachloride	50.0	45.4		ug/L		91	61 - 137
Chlorobenzene	50.0	48.8		ug/L		98	70 - 130
Dibromochloromethane	50.0	46.7		ug/L		93	67 - 135
Chloroethane	50.0	46.9		ug/L		94	55 - 141
2-Chloroethyl vinyl ether	50.0	30.7		ug/L		61	10 - 160
Chloroform	50.0	45.2		ug/L		90	69 - 130
1-Chlorohexane	50.0	47.1		ug/L		94	69 - 130
Chloromethane	50.0	33.6		ug/L		67	58 - 137
cis-1,2-Dichloroethene	50.0	45.4		ug/L		91	68 - 130
cis-1,3-Dichloropropene	50.0	46.3		ug/L		93	69 - 132
1,2-Dichlorobenzene	50.0	49.4		ug/L		99	67 - 130
1,3-Dichlorobenzene	50.0	49.6		ug/L		99	70 - 130
1,4-Dichlorobenzene	50.0	49.9		ug/L		100	70 - 130
Dichlorodifluoromethane	50.0	33.1		ug/L		66	41 - 146
1,1-Dichloroethane	50.0	46.5		ug/L		93	70 - 130
1,2-Dichloroethane	50.0	42.1		ug/L		84	69 - 130
1,1-Dichloroethene	50.0	46.9		ug/L		94	63 - 134
1,2-Dichloropropane	50.0	48.8		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	47.0		ug/L		94	70 - 130
2,2-Dichloropropane	50.0	41.4		ug/L		83	52 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621585/1002
Matrix: Water
Analysis Batch: 621585

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	50.0	46.7		ug/L		93	70 - 130
Ethylbenzene	50.0	48.3		ug/L		97	70 - 130
Ethyl methacrylate	50.0	44.9		ug/L		90	68 - 130
Hexachlorobutadiene	50.0	53.9		ug/L		108	53 - 140
2-Hexanone	200	166		ug/L		83	65 - 137
Isopropy benzene	50.0	48.8		ug/L		98	70 - 130
Methylene bromide	50.0	46.6		ug/L		93	70 - 130
Methylene Chloride	50.0	48.6		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	166		ug/L		83	69 - 138
Methyl tert-butyl ether	50.0	42.2		ug/L		84	66 - 130
m-Xylene & p-Xylene	50.0	47.4		ug/L		95	70 - 130
Naphthalene	50.0	44.8		ug/L		90	47 - 149
n-Butylbenzene	50.0	48.7		ug/L		97	67 - 130
N-Propylbenzene	50.0	49.6		ug/L		99	70 - 130
o-Chlorotoluene	50.0	46.4		ug/L		93	70 - 130
o-Xylene	50.0	47.2		ug/L		94	70 - 130
p-Chlorotoluene	50.0	47.8		ug/L		96	70 - 130
p-Isopropyltoluene	50.0	50.3		ug/L		101	65 - 130
sec-Butylbenzene	50.0	49.2		ug/L		98	66 - 130
Styrene	50.0	49.1		ug/L		98	70 - 130
tert-Butylbenzene	50.0	45.4		ug/L		91	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.5		ug/L		95	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.6		ug/L		91	70 - 131
Tetrachloroethene	50.0	48.1		ug/L		96	65 - 130
Toluene	50.0	46.3		ug/L		93	70 - 130
trans-1,2-Dichloroethene	50.0	48.0		ug/L		96	70 - 130
trans-1,3-Dichloropropene	50.0	44.0		ug/L		88	63 - 130
1,2,3-Trichlorobenzene	50.0	49.1		ug/L		98	60 - 138
1,2,4-Trichlorobenzene	50.0	49.5		ug/L		99	60 - 140
1,1,1-Trichloroethane	50.0	43.8		ug/L		88	68 - 130
1,1,2-Trichloroethane	50.0	47.6		ug/L		95	70 - 130
Trichloroethene	50.0	48.4		ug/L		97	70 - 130
Trichlorofluoromethane	50.0	47.5		ug/L		95	65 - 138
1,2,3-Trichloropropane	50.0	43.9		ug/L		88	70 - 130
1,2,4-Trimethy benzene	50.0	49.3		ug/L		99	70 - 130
1,3,5-Trimethy benzene	50.0	48.3		ug/L		97	69 - 130
Vinyl acetate	100	91.5		ug/L		91	26 - 160
Vinyl chloride	50.0	45.0		ug/L		90	59 - 136
Xylenes, Total	100	94.6		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-620225/1-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
1,4-Dioxane	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Chlorophenol	ND		10	2.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Methylphenol	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Nitroaniline	ND		10	2.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Nitrophenol	ND		10	5.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/10/23 11:20	04/11/23 12:09	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
3-Nitroaniline	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Chloroaniline	ND		10	3.4	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Nitroaniline	ND		10	1.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Nitrophenol	ND		10	2.1	ug/L		04/10/23 11:20	04/11/23 12:09	1
Aniline	ND		10	3.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
Benzenethiol	ND		10	1.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
Benzoic acid	ND		30	7.3	ug/L		04/10/23 11:20	04/11/23 12:09	1
Benzyl alcohol	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 12:09	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 12:09	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/10/23 11:20	04/11/23 12:09	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Dibenzofuran	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
Diethyl phthalate	ND		10	0.24	ug/L		04/10/23 11:20	04/11/23 12:09	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
Hexachloroethane	ND		10	4.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
Indene	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Isophorone	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 12:09	1
Nitrobenzene	ND		10	0.13	ug/L		04/10/23 11:20	04/11/23 12:09	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/10/23 11:20	04/11/23 12:09	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/10/23 11:20	04/11/23 12:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-620225/1-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		20	1.4	ug/L		04/10/23 11:20	04/11/23 12:09	1
Phenol	ND		10	2.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
Pyridine	ND		10	3.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
Quinoline	ND		10	4.5	ug/L		04/10/23 11:20	04/11/23 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*46 - 124*	*04/10/23 11:20*	*04/11/23 12:09*	*1*
2-Fluorophenol	*23*		*13 - 113*	*04/10/23 11:20*	*04/11/23 12:09*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*04/10/23 11:20*	*04/11/23 12:09*	*1*
Phenol-d5	*64*		*17 - 127*	*04/10/23 11:20*	*04/11/23 12:09*	*1*
Terphenyl-d14	*110*		*44 - 149*	*04/10/23 11:20*	*04/11/23 12:09*	*1*
2,4,6-Tribromophenol	*78*		*26 - 150*	*04/10/23 11:20*	*04/11/23 12:09*	*1*

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Diphenylhydrazine (as Azobenzene)	120	100		ug/L		84	45 - 124
1,4-Dioxane	120	48.6		ug/L		41	31 - 120
2,4,5-Trichlorophenol	120	104		ug/L		87	51 - 136
2,4,6-Trichlorophenol	120	100		ug/L		83	50 - 127
2,4-Dichlorophenol	120	106		ug/L		88	49 - 120
2,4-Dimethylphenol	120	82.9		ug/L		69	48 - 120
2,4-Dinitrophenol	240	229		ug/L		95	10 - 150
2,4-Dinitrotoluene	120	109		ug/L		91	54 - 142
2,6-Dinitrotoluene	120	105		ug/L		87	55 - 130
2-Chloronaphthalene	120	102		ug/L		85	52 - 121
2-Chlorophenol	120	90.4		ug/L		75	40 - 120
2-Methylphenol	120	104		ug/L		87	46 - 124
2-Nitroaniline	120	102		ug/L		85	51 - 145
2-Nitrophenol	120	106		ug/L		89	40 - 124
3 & 4 Methylphenol	120	105		ug/L		88	45 - 120
3,3'-Dichlorobenzidine	160	220	*+	ug/L		138	36 - 132
3-Nitroaniline	120	96.7		ug/L		81	37 - 127
4,6-Dinitro-ortho-cresol	240	200		ug/L		83	23 - 148
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
4-Chloro-3-methylphenol	120	108		ug/L		90	48 - 131
4-Chloroaniline	120	96.0		ug/L		80	26 - 120
4-Chlorophenyl phenyl ether	120	110		ug/L		92	56 - 125
4-Nitroaniline	120	119		ug/L		99	36 - 137
4-Nitrophenol	240	254		ug/L		106	23 - 146
Aniline	120	114		ug/L		95	21 - 120
Benzoic acid	554	370		ug/L		67	10 - 144
Benzyl alcohol	120	99.2		ug/L		83	28 - 120
bis (2-chloroisopropyl) ether	120	89.4		ug/L		75	33 - 121
Bis(2-chloroethoxy)methane	120	89.9		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	84.8		ug/L		71	44 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate	120	104		ug/L		86	52 - 147
Butyl benzyl phthalate	120	108		ug/L		90	54 - 133
Dibenz[a,h]acridine	120	110		ug/L		92	31 - 150
Dibenzofuran	120	109		ug/L		91	56 - 122
Diethyl phthalate	120	109		ug/L		91	50 - 137
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	116		ug/L		97	58 - 126
Di-n-octyl phthalate	120	103		ug/L		86	57 - 138
Hexachlorobenzene	120	112		ug/L		93	52 - 129
Hexachlorocyclopentadiene	120	65.1		ug/L		54	10 - 134
Hexachloroethane	120	96.1		ug/L		80	20 - 120
Indene	120	94.8		ug/L		79	49 - 120
Isophorone	120	91.6		ug/L		76	48 - 120
Nitrobenzene	120	90.0		ug/L		75	45 - 120
N-Nitrosodimethylamine	120	93.5		ug/L		78	29 - 137
N-Nitrosodi-n-propylamine	120	106		ug/L		88	45 - 120
N-Nitrosodiphenylamine	119	104		ug/L		87	54 - 120
Pentachlorophenol	240	177		ug/L		74	31 - 130
Phenol	120	90.6		ug/L		76	11 - 120
Pyridine	240	149		ug/L		62	16 - 120
Quinoline	120	114		ug/L		95	49 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*54*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*95*		*26 - 150*

Lab Sample ID: LCS 400-620225/5-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.13	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*46 - 124*
2-Fluorophenol	*45*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*105*		*44 - 149*
2,4,6-Tribromophenol	*55*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-620225/6-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620225

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	17.9	*1	ug/L		15	10 - 120	98	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*42*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*108*		*44 - 149*
2,4,6-Tribromophenol	*75*		*26 - 150*

Lab Sample ID: 400-235763-5 MS
Matrix: Water
Analysis Batch: 620356

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Diphenylhydrazine (as Azobenzene)	ND		121	97.7		ug/L		81	50 - 150
1,4-Dioxane	ND	F1	121	44.7	F1	ug/L		37	50 - 150
2,4,5-Trichlorophenol	ND		121	95.2		ug/L		79	34 - 120
2,4,6-Trichlorophenol	ND		121	91.9		ug/L		76	33 - 120
2,4-Dichlorophenol	ND		121	94.8		ug/L		78	31 - 120
2,4-Dimethylphenol	ND		121	80.5		ug/L		67	21 - 120
2,4-Dinitrophenol	ND		242	215		ug/L		89	15 - 140
2,4-Dinitrotoluene	ND		121	106		ug/L		88	53 - 120
2,6-Dinitrotoluene	ND		121	102		ug/L		84	43 - 120
2-Chloronaphthalene	ND		121	101		ug/L		84	39 - 120
2-Chlorophenol	ND		121	66.2		ug/L		55	25 - 120
2-Methylphenol	ND		121	98.4		ug/L		81	28 - 120
2-Nitroaniline	ND		121	94.2		ug/L		78	45 - 120
2-Nitrophenol	ND		121	93.9		ug/L		78	33 - 120
3 & 4 Methylphenol	ND		121	96.1		ug/L		79	31 - 120
3,3'-Dichlorobenzidine	ND	*+ F1	161	197	F1	ug/L		122	10 - 120
3-Nitroaniline	ND		121	91.3		ug/L		75	10 - 130
4,6-Dinitro-ortho-cresol	ND		242	192		ug/L		80	25 - 120
4-Bromophenyl phenyl ether	ND		121	104		ug/L		86	40 - 120
4-Chloro-3-methylphenol	ND		121	102		ug/L		85	34 - 120
4-Chloroaniline	ND		121	96.9		ug/L		80	10 - 120
4-Chlorophenyl phenyl ether	ND		121	105		ug/L		87	44 - 120
4-Nitroaniline	ND		121	108		ug/L		90	10 - 132
4-Nitrophenol	ND		242	237		ug/L		98	10 - 120
Aniline	ND		121	105		ug/L		86	10 - 120
Benzoic acid	ND		558	340		ug/L		61	10 - 149
Benzyl alcohol	ND		121	95.0		ug/L		79	33 - 120
bis (2-chloroisopropyl) ether	ND		121	87.7		ug/L		72	28 - 120
Bis(2-chloroethoxy)methane	ND		121	88.2		ug/L		73	26 - 120
Bis(2-chloroethyl)ether	ND		121	87.9		ug/L		73	42 - 120
Bis(2-ethylhexyl) phthalate	ND		121	104		ug/L		86	39 - 120
Butyl benzyl phthalate	ND		121	107		ug/L		88	45 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235763-5 MS
Matrix: Water
Analysis Batch: 620356

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenz[a,h]acridine	ND		121	104		ug/L		86	50 - 150
Dibenzofuran	ND		121	106		ug/L		88	25 - 130
Diethyl phthalate	0.33	J	121	107		ug/L		88	46 - 120
Dimethyl phthalate	ND		121	101		ug/L		84	38 - 120
Di-n-butyl phthalate	ND		121	112		ug/L		93	49 - 120
Di-n-octyl phthalate	3.4	J	121	103		ug/L		82	35 - 121
Hexachlorobenzene	ND		121	107		ug/L		89	38 - 122
Hexachlorocyclopentadiene	ND		121	64.8		ug/L		54	10 - 120
Hexachloroethane	ND		121	92.5		ug/L		76	10 - 150
Indene	ND		121	92.6		ug/L		77	50 - 150
Isophorone	ND		121	89.8		ug/L		74	42 - 120
Nitrobenzene	ND		121	93.0		ug/L		77	39 - 120
N-Nitrosodimethylamine	ND		121	89.3		ug/L		74	10 - 139
N-Nitrosodi-n-propylamine	ND		121	101		ug/L		84	37 - 124
N-Nitrosodiphenylamine	ND		120	100		ug/L		83	10 - 150
Pentachlorophenol	ND		242	169		ug/L		70	29 - 130
Phenol	ND		121	73.5		ug/L		61	10 - 150
Pyridine	ND		242	146		ug/L		60	10 - 120
Quinoline	ND		121	112		ug/L		93	51 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*26*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*89*		*26 - 150*

Lab Sample ID: 400-235763-5 MSD
Matrix: Water
Analysis Batch: 620356

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Diphenylhydrazine (as Azobenzene)	ND		117	99.3		ug/L		85	50 - 150	2	40
1,4-Dioxane	ND	F1	117	47.1	F1	ug/L		40	50 - 150	5	40
2,4,5-Trichlorophenol	ND		117	103		ug/L		88	34 - 120	7	42
2,4,6-Trichlorophenol	ND		117	99.1		ug/L		85	33 - 120	7	44
2,4-Dichlorophenol	ND		117	102		ug/L		87	31 - 120	7	43
2,4-Dimethylphenol	ND		117	81.5		ug/L		70	21 - 120	1	47
2,4-Dinitrophenol	ND		233	223		ug/L		96	15 - 140	4	36
2,4-Dinitrotoluene	ND		117	108		ug/L		93	53 - 120	2	28
2,6-Dinitrotoluene	ND		117	104		ug/L		89	43 - 120	3	28
2-Chloronaphthalene	ND		117	102		ug/L		88	39 - 120	1	29
2-Chlorophenol	ND		117	78.8		ug/L		68	25 - 120	17	42
2-Methylphenol	ND		117	102		ug/L		87	28 - 120	3	47
2-Nitroaniline	ND		117	96.3		ug/L		83	45 - 120	2	33
2-Nitrophenol	ND		117	103		ug/L		88	33 - 120	9	43
3 & 4 Methylphenol	ND		117	101		ug/L		86	31 - 120	5	47

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235763-5 MSD
Matrix: Water
Analysis Batch: 620356

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine	ND	*+ F1	156	201	F1	ug/L		129	10 - 120	2	58
3-Nitroaniline	ND		117	94.1		ug/L		81	10 - 130	3	39
4,6-Dinitro-ortho-cresol	ND		233	199		ug/L		86	25 - 120	4	42
4-Bromophenyl phenyl ether	ND		117	108		ug/L		92	40 - 120	3	30
4-Chloro-3-methylphenol	ND		117	106		ug/L		91	34 - 120	3	40
4-Chloroaniline	ND		117	96.6		ug/L		83	10 - 120	0	94
4-Chlorophenyl phenyl ether	ND		117	107		ug/L		92	44 - 120	2	27
4-Nitroaniline	ND		117	110		ug/L		94	10 - 132	2	50
4-Nitrophenol	ND		233	243		ug/L		104	10 - 120	3	82
Aniline	ND		117	110		ug/L		95	10 - 120	5	63
Benzoic acid	ND		538	361		ug/L		67	10 - 149	6	49
Benzyl alcohol	ND		117	98.2		ug/L		84	33 - 120	3	37
bis (2-chloroisopropyl) ether	ND		117	88.6		ug/L		76	28 - 120	1	41
Bis(2-chloroethoxy)methane	ND		117	89.6		ug/L		77	26 - 120	2	70
Bis(2-chloroethyl)ether	ND		117	88.7		ug/L		76	42 - 120	1	42
Bis(2-ethylhexyl) phthalate	ND		117	103		ug/L		89	39 - 120	0	35
Butyl benzyl phthalate	ND		117	107		ug/L		92	45 - 120	0	32
Dibenz[a,h]acridine	ND		116	106		ug/L		91	50 - 150	2	40
Dibenzofuran	ND		117	107		ug/L		92	25 - 130	1	29
Diethyl phthalate	0.33	J	117	108		ug/L		92	46 - 120	1	40
Dimethyl phthalate	ND		117	102		ug/L		88	38 - 120	1	36
Di-n-butyl phthalate	ND		117	114		ug/L		98	49 - 120	2	32
Di-n-octyl phthalate	3.4	J	117	103		ug/L		86	35 - 121	1	35
Hexachlorobenzene	ND		117	113		ug/L		97	38 - 122	5	33
Hexachlorocyclopentadiene	ND		117	64.5		ug/L		55	10 - 120	0	50
Hexachloroethane	ND		117	92.7		ug/L		79	10 - 150	0	41
Indene	ND		117	94.5		ug/L		81	50 - 150	2	40
Isophorone	ND		117	91.1		ug/L		78	42 - 120	1	33
Nitrobenzene	ND		117	95.4		ug/L		82	39 - 120	2	35
N-Nitrosodimethylamine	ND		117	89.7		ug/L		77	10 - 139	0	62
N-Nitrosodi-n-propylamine	ND		117	103		ug/L		88	37 - 124	2	36
N-Nitrosodiphenylamine	ND		116	102		ug/L		88	10 - 150	2	34
Pentachlorophenol	ND		233	176		ug/L		76	29 - 130	4	42
Phenol	ND		117	82.4		ug/L		71	10 - 150	11	52
Pyridine	ND		233	150		ug/L		64	10 - 120	2	55
Quinoline	ND		116	113		ug/L		97	51 - 120	1	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*39*		*13 - 113*
Nitrobenzene-d5	*88*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-620225/1-A
Matrix: Water
Analysis Batch: 620348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/10/23 11:20	04/11/23 16:41	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/10/23 11:20	04/11/23 16:41	1
Anthracene	ND		0.20	0.032	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/10/23 11:20	04/11/23 16:41	1
Chrysene	ND		0.20	0.074	ug/L		04/10/23 11:20	04/11/23 16:41	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/10/23 11:20	04/11/23 16:41	1
Fluoranthene	ND		0.20	0.068	ug/L		04/10/23 11:20	04/11/23 16:41	1
Fluorene	ND		0.20	0.11	ug/L		04/10/23 11:20	04/11/23 16:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/10/23 11:20	04/11/23 16:41	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/10/23 11:20	04/11/23 16:41	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/10/23 11:20	04/11/23 16:41	1
Phenanthrene	ND		0.20	0.036	ug/L		04/10/23 11:20	04/11/23 16:41	1
Pyrene	ND		0.20	0.040	ug/L		04/10/23 11:20	04/11/23 16:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*121*		*15 - 122*	*04/10/23 11:20*	*04/11/23 16:41*	*1*
Nitrobenzene-d5	*106*		*19 - 130*	*04/10/23 11:20*	*04/11/23 16:41*	*1*
Terphenyl-d14	*193*	*S1+*	*33 - 138*	*04/10/23 11:20*	*04/11/23 16:41*	*1*

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	102		ug/L		85	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	122		ug/L		102	49 - 120
Benzo[a]anthracene	120	124		ug/L		103	61 - 135
Benzo[a]pyrene	120	118		ug/L		98	52 - 120
Benzo[b]fluoranthene	120	128		ug/L		107	53 - 134
Benzo[g,h,i]perylene	120	86.8		ug/L		72	47 - 133
Benzo[k]fluoranthene	120	110		ug/L		91	57 - 134
Chrysene	120	114		ug/L		95	55 - 122
Dibenz(a,h)anthracene	120	99.5		ug/L		83	48 - 146
Fluoranthene	120	121		ug/L		101	54 - 128
Fluorene	120	125		ug/L		104	45 - 125
Indeno[1,2,3-cd]pyrene	120	87.5		ug/L		73	43 - 142
1-Methylnaphthalene	120	105		ug/L		87	41 - 120
2-Methylnaphthalene	120	108		ug/L		90	32 - 124
Phenanthrene	120	114		ug/L		95	48 - 120
Pyrene	120	127		ug/L		106	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*15 - 122*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	77		19 - 130
Terphenyl-d14	114		33 - 138

Lab Sample ID: 400-235763-5 MS
Matrix: Water
Analysis Batch: 620348

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		121	101		ug/L		83	35 - 113
Acenaphthylene	ND		121	116		ug/L		96	41 - 118
Anthracene	ND		121	121		ug/L		100	45 - 122
Benzo[a]anthracene	ND		121	119		ug/L		98	55 - 133
Benzo[a]pyrene	ND		121	117		ug/L		97	50 - 108
Benzo[b]fluoranthene	ND		121	129		ug/L		106	50 - 128
Benzo[g,h,i]perylene	ND		121	91.9		ug/L		76	46 - 133
Benzo[k]fluoranthene	ND		121	113		ug/L		93	52 - 128
Chrysene	ND		121	110		ug/L		91	52 - 116
Dibenz(a,h)anthracene	ND		121	101		ug/L		84	52 - 143
Fluoranthene	ND		121	118		ug/L		98	32 - 150
Fluorene	ND		121	124		ug/L		103	15 - 150
Indeno[1,2,3-cd]pyrene	ND		121	87.4		ug/L		72	41 - 141
1-Methylnaphthalene	ND		121	104		ug/L		86	10 - 150
2-Methylnaphthalene	ND		121	106		ug/L		88	10 - 150
Phenanthrene	ND		121	109		ug/L		90	36 - 125
Pyrene	ND		121	122		ug/L		101	41 - 127

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	82		15 - 122
Nitrobenzene-d5	72		19 - 130
Terphenyl-d14	107		33 - 138

Lab Sample ID: 400-235763-5 MSD
Matrix: Water
Analysis Batch: 620348

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		117	97.5		ug/L		84	35 - 113	3	49
Acenaphthylene	ND		117	112		ug/L		96	41 - 118	4	48
Anthracene	ND		117	114		ug/L		98	45 - 122	5	56
Benzo[a]anthracene	ND		117	114		ug/L		98	55 - 133	4	57
Benzo[a]pyrene	ND		117	113		ug/L		97	50 - 108	4	59
Benzo[b]fluoranthene	ND		117	123		ug/L		105	50 - 128	5	62
Benzo[g,h,i]perylene	ND		117	89.3		ug/L		77	46 - 133	3	58
Benzo[k]fluoranthene	ND		117	109		ug/L		93	52 - 128	3	58
Chrysene	ND		117	105		ug/L		90	52 - 116	5	59
Dibenz(a,h)anthracene	ND		117	100		ug/L		86	52 - 143	1	60
Fluoranthene	ND		117	114		ug/L		98	32 - 150	3	59
Fluorene	ND		117	119		ug/L		102	15 - 150	5	49

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 400-235763-5 MSD
Matrix: Water
Analysis Batch: 620348

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene	ND		117	88.4		ug/L		76	41 - 141	1	58
1-Methylnaphthalene	ND		117	102		ug/L		88	10 - 150	2	66
2-Methylnaphthalene	ND		117	103		ug/L		88	10 - 150	4	66
Phenanthrene	ND		117	106		ug/L		91	36 - 125	3	69
Pyrene	ND		117	116		ug/L		99	41 - 127	5	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*15 - 122*
Nitrobenzene-d5	*66*		*19 - 130*
Terphenyl-d14	*106*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-620706/1-A
Matrix: Water
Analysis Batch: 620882

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620706

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/13/23 12:10	04/14/23 16:19	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/13/23 12:10	04/14/23 16:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*04/13/23 12:10*	*04/14/23 16:19*	*1*

Lab Sample ID: LCS 400-620706/2-A
Matrix: Water
Analysis Batch: 620882

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620706

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.121		ug/L		120	60 - 140		
1,2-D bromoethane			0.101	0.104		ug/L		104	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*51 - 149*

Lab Sample ID: LCSD 400-620706/3-A
Matrix: Water
Analysis Batch: 620882

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620706

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.122		ug/L		122	60 - 140	1	30
1,2-D bromoethane			0.101	0.100		ug/L		99	60 - 140	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-235763-5 MS
Matrix: Water
Analysis Batch: 620882

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620706

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane	ND	F1	0.0980	0.142		ug/L		145	10 - 150		
1,2-D bromoethane	ND		0.0982	0.0984		ug/L		100	39 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*51 - 149*

Lab Sample ID: 400-235763-5 MSD
Matrix: Water
Analysis Batch: 620882

Client Sample ID: MW10-ROX-040623
Prep Type: Total/NA
Prep Batch: 620706

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane	ND	F1	0.0988	0.162	F1	ug/L		164	10 - 150	13	20
1,2-D bromoethane	ND		0.0991	0.107		ug/L		108	39 - 150	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:		
☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/6/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-235763 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-040623-8260	4/6/2023	0000	Water	2					2	X			
	TB-ROX-040623-8011	4/6/2023	0000	Water	2					2		X		
	MW1-ROX-040623-EB	4/6/2023	0850	Water	6			2		8	X	X	X	X
	MW1-ROX-040623	4/6/2023	1045	Water	6			2		8	X	X	X	X
	MW10-ROX-040623	4/6/2023	1210	Water	6			2		8	X	X	X	X
	MW10-ROX-040623-MS	4/6/2023	1210	Water	6			2		8	X	X	X	X
	MW10-ROX-040623-MSD	4/6/2023	1210	Water	6			2		8	X	X	X	X
	MW11-ROX-040623	4/6/2023	1325	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 9910, 5564 3932 9921	4/6/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/7/23	Time: 9:53
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1599681, 1599680, 1599682, 1599683

0.8°C IR11 & 3.5°C IR11

4/24/2023

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:		
☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/6/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-235763 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-040623-8260	4/6/2023	0000	Water	2					2	X			
	TB-ROX-040623-8011	4/6/2023	0000	Water	2					2		X		
	MW1-ROX-040623-EB	4/6/2023	0850	Water	6			2		8	X	X	X	X
	MW1-ROX-040623	4/6/2023	1045	Water	6			2		8	X	X	X	X
	MW10-ROX-040623	4/6/2023	1210	Water	6			2		8	X	X	X	X
	MW10-ROX-040623-MS	4/6/2023	1210	Water	6			2		8	X	X	X	X
	MW10-ROX-040623-MSD	4/6/2023	1210	Water	6			2		8	X	X	X	X
	MW11-ROX-040623	4/6/2023	1325	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 9910, 5564 3932 9921	4/6/2023	1600
		4/7/23	9:53

CUSTODY SEALS: 1599681, 1599680, 1599682, 1599683

0.5°C IR11 & 3.5°C IR11

Version: 13Oct22

Page 58 of 61

4/24/2023

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:				Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
	☐ SGW FDG	☐ PIPELINE	☐ RETAIL	Melissa Remiger	25278	DATE: 4/7/2023
	☐ CHEMICALS	☐ CONSULTANT	☐ LUBES	PO #	GSAP Project ID	PAGE: 1 of 1
	☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES		60697537 – 6.1.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave, ROXANA
State: IL
AECOM Project / Task Number: Refinery 1H Semiannual 60697537 – 6.1.2
ADDRESS: 100 N. Broadway, 20th Floor, ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): J. Mayer, T. Jones
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Dissolved metals are field filtered.
* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 6.1.2

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 8260	8011 EDB	PAH 8270LL	SVOC 8270	Dissolved Metals & Hg 6010/7470	Dissolved Antimony 6020	Total Metals & Hg 6010/7470	Total Antimony 6020	Total Cyanide 9012B
599061	TB-WRR-040723-8260	4/7/2023	0000	Water	2					2	X								
	TB-WRR-040723-8011	4/7/2023	0000	Water	2					2		X							
	P81D-WRR-040723	4/7/2023	0940	Water	6	2		2	1	11	X	X	X	X	X	X	X	X	X
	P014-WRR-040723	4/7/2023	1115	Water	6	2		2	1	11	X	X	X	X	X	X	X	X	X
	P01-WRR-040723	4/7/2023	1130	Water	6	2		2	1	11	X	X	X	X	X	X	X	X	X
	P01-WRR-040723-DUP	4/7/2023	1130	Water	6	2		2	1	11	X	X	X	X	X	X	X	X	X
	P4U-WRR-040723	4/7/2023	1225	Water	6	2		2	1	11	X	X	X	X	X	X	X	X	X
	P15-WRR-040723	4/7/2023	1240	Water	6	2		2	1	11	X	X	X	X	X	X	X	X	X
	P15-WRR-040723-DUP	4/7/2023	1240	Water	6	2		2	1	11	X	X	X	X	X	X	X	X	X
																Joe Mayer		4-7	23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
JOE MAYER	FEDEX: 5564 3932 9900, 5564 3932 9895, 5564 3932 9884	4/7/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1599684, 1599685, 1599686, 1599687, 1599688, 1599689

Version: 1Apr22

4/24/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-235763-1

Login Number: 235763 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Perez, Trina M

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8°C, 3.5°C IR-11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-235763-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-235800-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/29/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-040723-8260	TB-ROX-040723-8011
MW4-ROX-040723-EB	MW4-ROX-040723
MW25-ROX-040723	MW7-ROX-040723
MW7-ROX-040723-DUP	MW12-ROX-040723

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 2-butanone (MEK) and diethyl phthalate were detected in equipment blank MW4-ROX-040723-EB. VOC and SVOC LCS/LCSD recoveries, and/or SVOC and 1,2-Dibromo-3-Chloropropane LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC and PAH surrogate recoveries were outside criteria in several investigative and quality control samples. Benzene, phenol, and 2-methylnaphthalene in field duplicate pair MW7-ROX-040723/ MW7-ROX-040723-DUP were qualified due to field duplicate RPD above evaluation criteria; therefore, results were qualified as estimated (**J**). VOCs in field duplicate pair MW7-ROX-040723/MW7-ROX-040723-DUP were diluted to bring target analytes into calibration range of the instrument. SVOCs and PAHs in sample MW4-ROX-040723 were diluted due to the nature of the sample matrix. The continuing calibration verification (CCV) for hexachlorocyclopentadiene, was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MW4-ROX-040723-EB	VOCs	2-Butanone (MEK)	3.1 µg/L
MW4-ROX-040723-EB	SVOCs	Diethyl phthalate	0.51 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW4-ROX-040723	SVOCs	Diethyl 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
LCS 400-621435/1002	VOCs	Acetone	**183**	NA	43-160
LCS 400-621435/1002	VOCs	1-Chlorohexane	**131**	NA	69-130
LCS 400-621435/1002	VOCs	2-Hexanone	**139**	NA	65-137
LCS 400-620225/2-A	SVOCs	3,3'-Dichlorobenzidine	**138**	NA	36-132
LCS/LCSD 400-620225/5-A/6-A	SVOCs	Benzenethiol	**5**/15	**98**	10-120/30
LCS/LCSD 400-620189/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	81/137	**51**	60-140/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-040723	SVOCs	Benzenethiol	**UJ**
MW25-ROX-040723	SVOCs	Benzenethiol	**UJ**
MW7-ROX-040723	SVOCs	Benzenethiol	**UJ**
MW7-ROX-040723-DUP	SVOCs	Benzenethiol	**UJ**
MW12-ROX-040723	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW4-ROX-040723-EB	SVOCs	2-Fluorophenol	**8**	13-113
MW25-ROX-040723	SVOCs	2-Fluorophenol	**7**	13-113
MW12-ROX-040723	SVOCs	2-Fluorophenol	**8**	13-113
MW12-ROX-040723	SVOCs	2,4,6-Tribromophenol	**14**	26-150
MW4-ROX-040723-EB	PAHs	Terphenyl-d_{14}	**171**	33-138
MW25-ROX-040723	PAHs	Terphenyl-d_{14}	**145**	33-138
MB 400-620225/1-A	PAHs	Terphenyl-d_{14}	**193**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Equipment blanks and method blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW12-ROX-040723	SVOCs	Benzoic acid	**UJ**
MW12-ROX-040723	SVOCs	Benzyl alcohol	**UJ**
MW12-ROX-040723	SVOCs	4-Chloro-3-methylphenol	**UJ**
MW12-ROX-040723	SVOCs	2-Chlorophenol	**UJ**
MW12-ROX-040723	SVOCs	2,4-Dichlorophenol	**UJ**
MW12-ROX-040723	SVOCs	2,4-Dimethylphenol	**UJ**
MW12-ROX-040723	SVOCs	2,4-Dinitrophenol	**UJ**
MW12-ROX-040723	SVOCs	2-Methylphenol	**UJ**
MW12-ROX-040723	SVOCs	3 & 4 Methylphenol	**UJ**
MW12-ROX-040723	SVOCs	2-Nitrophenol	**UJ**
MW12-ROX-040723	SVOCs	4-Nitrophenol	**UJ**
MW12-ROX-040723	SVOCs	Pentachlorophenol	**UJ**
MW12-ROX-040723	SVOCs	Phenol	**UJ**
MW12-ROX-040723	SVOCs	2,4,5-Trichlorophenol	**UJ**
MW12-ROX-040723	SVOCs	2,4,6-Trichlorophenol	**UJ**
MW12-ROX-040723	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**

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
MW7-ROX-040723	MW7-ROX-040723-DUP

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
MW7-ROX-040723	MW7-ROX-040723-DUP	VOCs	Benzene	**36**	**J/J**
		SVOCs	Phenol	**45**	**J/J**
		PAHs	2-Methylnaphthalene	**32**	**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 with the exception of non-detect PAHs in sample MW4-ROX-040723 which were diluted due to the nature of the sample matrix. PAHs were non-detect at a dilution factor of 2X, with raised reporting limits of 0.39 µg/L. Due to historical detections, please see section 12.0 of the data review for additional qualifications.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for hexachlorocyclopentadiene, was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-040723	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW25-ROX-040723	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-040723	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-040723-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW12-ROX-040723	SVOCs	Hexachlorocyclopentadiene	**UJ**

Additionally, PAHs in sample MW4-ROX-040723 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-040723	PAHs	All non-detects	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 4/24/2023 9:17:45 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-235800-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 35
Surrogate Summary 36
Method Summary 38
Chronicle 39
QC Association 43
QC Sample Results 45
Chain of Custody 55
Receipt Checklists 56
Certification Summary 57

Job ID: 400-235800-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-235800-1

Receipt
The samples were received on 4/8/2023 8:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5°C, 4.6°C and 5.5°C

GC/MS VOA
Method 8260B: The laboratory control sample (LCS) for analytical batch 400-621435 recovered outside control limits for the following analytes: 1-Chlorohexane, 2-Hexanone and Acetone. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-621435 recovered above the upper control limit for Acetone. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-040723-8260 (400-235800-1), MW4-ROX-040723-EB (400-235800-3), MW4-ROX-040723 (400-235800-4), MW25-ROX-040723 (400-235800-5) and MW12-ROX-040723 (400-235800-8). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW7-ROX-040723 (400-235800-6) and MW7-ROX-040723-DUP (400-235800-7). Elevated reporting limits (RLs) are provided.

Method 8260B: Sample MW4-ROX-040723-EB (400-235800-3) contained 2-Butanone (MEK) between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW7-ROX-040723 (400-235800-6) and MW7-ROX-040723-DUP (400-235800-7). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-620225 and analytical batch 400-620356 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-620225 and analytical batch 400-620356 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-620225 and analytical batch 400-620356 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: MW4-ROX-040723 (400-235800-4). Elevated reporting limits (RLs) are provided.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW4-ROX-040723-EB (400-235800-3) and MW25-ROX-040723 (400-235800-5). These results have been reported and qualified.

Job ID: 400-235800-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-620515 recovered above the upper control limit for Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-620515 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Surrogate recovery for the following sample was outside control limits: MW12-ROX-040723 (400-235800-8). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

Method 8270D_LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-620225/1-A). These results have been reported and qualified.

Method 8270D_LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW4-ROX-040723-EB (400-235800-3) and MW25-ROX-040723 (400-235800-5). These results have been reported and qualified.

Method 8270D_LL: Physical properties (viscosity, color, odor) of the following sample extract preclude concentrated analysis which would jeopardize instrumentation: MW4-ROX-040723 (400-235800-4) Minimal dilution with elevated RLs is reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8011: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-620189.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-620259 recovered above the upper control limit for 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-620259 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-620189 and analytical batch 400-620259 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-235800-1	TB-ROX-040723-8260	Water	04/07/23 12:00	04/08/23 08:30
400-235800-2	TB-ROX-040723-8011	Water	04/07/23 12:00	04/08/23 08:30
400-235800-3	MW4-ROX-040723-EB	Water	04/07/23 08:35	04/08/23 08:30
400-235800-4	MW4-ROX-040723	Water	04/07/23 09:35	04/08/23 08:30
400-235800-5	MW25-ROX-040723	Water	04/07/23 10:45	04/08/23 08:30
400-235800-6	MW7-ROX-040723	Water	04/07/23 11:55	04/08/23 08:30
400-235800-7	MW7-ROX-040723-DUP	Water	04/07/23 11:55	04/08/23 08:30
400-235800-8	MW12-ROX-040723	Water	04/07/23 13:40	04/08/23 08:30

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: TB-ROX-040723-8260 — Lab Sample ID: 400-235800-1

No Detections.

Client Sample ID: TB-ROX-040723-8011 — Lab Sample ID: 400-235800-2

No Detections.

Client Sample ID: MW4-ROX-040723-EB — Lab Sample ID: 400-235800-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.1	J	25	2.6	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.51	J	9.9	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: MW4-ROX-040723 — Lab Sample ID: 400-235800-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.76	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.27	J	1.0	0.22	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.50	J U	20	0.47	ug/L	2		8270D	Total/NA

Client Sample ID: MW25-ROX-040723 — Lab Sample ID: 400-235800-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	40		1.0	0.13	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	3.6	J	25	2.6	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.37	J	1.0	0.22	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.62	J	10	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX-040723 — Lab Sample ID: 400-235800-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	710	J	1000	410	ug/L	1000		8260B	Total/NA
Benzene - DL	890000	J	5000	650	ug/L	5000		8260B	Total/NA
1-Methylnaphthalene	0.97		0.20	0.075	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	1.3	J	0.20	0.061	ug/L	1		8270D LL	Total/NA
Benzoic acid	20	J	31	7.4	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.42	J	10	0.24	ug/L	1		8270D	Total/NA
Phenol	82	J	10	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX-040723-DUP — Lab Sample ID: 400-235800-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	430	J	1000	410	ug/L	1000		8260B	Total/NA
Benzene - DL	620000	J	5000	650	ug/L	5000		8260B	Total/NA
1-Methylnaphthalene	1.1		0.20	0.074	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	1.8	J	0.20	0.060	ug/L	1		8270D LL	Total/NA
Benzoic acid	21	J	30	7.3	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.73	J	10	0.24	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	0.73	J	20	0.39	ug/L	1		8270D	Total/NA
Phenol	130	J	10	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: MW12-ROX-040723 — Lab Sample ID: 400-235800-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.0		1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.64	J	9.8	0.24	ug/L	1		8270D	Total/NA
Di-n-octyl phthalate	2.7	J	9.8	0.17	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: TB-ROX-040723-8260
Date Collected: 04/07/23 12:00
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/19/23 20:44	1
Acrolein	ND		20	3.3	ug/L			04/19/23 20:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 20:44	1
Benzene	ND		1.0	0.13	ug/L			04/19/23 20:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 20:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 20:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 20:44	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 20:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 20:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 20:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 20:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 20:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 20:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 20:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 20:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/23 20:44	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 20:44	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/19/23 20:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 20:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 20:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/23 20:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 20:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 20:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 20:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 20:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 20:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 20:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 20:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 20:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 20:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 20:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 20:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 20:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 20:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 20:44	1
2-Hexanone	ND	*+	25	1.4	ug/L			04/19/23 20:44	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 20:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 20:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 20:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/23 20:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 20:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 20:44	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 20:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 20:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 20:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 20:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 20:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 20:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 20:44	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: TB-ROX-040723-8260
Date Collected: 04/07/23 12:00
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 20:44	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 20:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 20:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 20:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 20:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 20:44	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 20:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 20:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 20:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 20:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 20:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 20:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 20:44	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 20:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 20:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 20:44	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 20:44	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 20:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 20:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 20:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/19/23 20:44*	*1*
Dibromofluoromethane	*118*		*75 - 126*		*04/19/23 20:44*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*04/19/23 20:44*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: TB-ROX-040723-8011
Date Collected: 04/07/23 12:00
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/10/23 09:53	04/10/23 15:02	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/10/23 09:53	04/10/23 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*	*p*	*51 - 149*	*04/10/23 09:53*	*04/10/23 15:02*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW4-ROX-040723-EB
Date Collected: 04/07/23 08:35
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/19/23 21:09	1
Acrolein	ND		20	3.3	ug/L			04/19/23 21:09	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 21:09	1
Benzene	ND		1.0	0.13	ug/L			04/19/23 21:09	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 21:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 21:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 21:09	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 21:09	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 21:09	1
2-Butanone (MEK)	**3.1**	**J**	25	2.6	ug/L			04/19/23 21:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 21:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 21:09	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 21:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 21:09	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 21:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/23 21:09	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 21:09	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/19/23 21:09	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 21:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 21:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/23 21:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 21:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 21:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 21:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 21:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 21:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 21:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 21:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 21:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 21:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 21:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 21:09	1
2-Hexanone	ND	*+	25	1.4	ug/L			04/19/23 21:09	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 21:09	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 21:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 21:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/23 21:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 21:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 21:09	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 21:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 21:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 21:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 21:09	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 21:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 21:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 21:09	1

Client Sample ID: MW4-ROX-040723-EB
Date Collected: 04/07/23 08:35
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 21:09	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 21:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 21:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 21:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 21:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 21:09	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 21:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 21:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 21:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 21:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 21:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 21:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 21:09	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 21:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 21:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 21:09	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 21:09	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 21:09	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 21:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 21:09	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*04/19/23 21:09*	*1*
Dibromofluoromethane	*118*		*75 - 126*		*04/19/23 21:09*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*04/19/23 21:09*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/11/23 09:11	04/12/23 13:48	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/11/23 09:11	04/12/23 13:48	1
Anthracene	ND		0.20	0.032	ug/L		04/11/23 09:11	04/12/23 13:48	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/11/23 09:11	04/12/23 13:48	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/11/23 09:11	04/12/23 13:48	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/11/23 09:11	04/12/23 13:48	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/11/23 09:11	04/12/23 13:48	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/11/23 09:11	04/12/23 13:48	1
Chrysene	ND		0.20	0.073	ug/L		04/11/23 09:11	04/12/23 13:48	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/11/23 09:11	04/12/23 13:48	1
Fluoranthene	ND		0.20	0.067	ug/L		04/11/23 09:11	04/12/23 13:48	1
Fluorene	ND		0.20	0.11	ug/L		04/11/23 09:11	04/12/23 13:48	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/11/23 09:11	04/12/23 13:48	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/11/23 09:11	04/12/23 13:48	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/11/23 09:11	04/12/23 13:48	1
Phenanthrene	ND		0.20	0.036	ug/L		04/11/23 09:11	04/12/23 13:48	1
Pyrene	ND		0.20	0.039	ug/L		04/11/23 09:11	04/12/23 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*103*		*15 - 122*	*04/11/23 09:11*	*04/12/23 13:48*	*1*
Nitrobenzene-d5	*88*		*19 - 130*	*04/11/23 09:11*	*04/12/23 13:48*	*1*

Client Sample ID: MW4-ROX-040723-EB

Lab Sample ID: 400-235800-3

Date Collected: 04/07/23 08:35

Matrix: Water

Date Received: 04/08/23 08:30

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*171*	*S1+*	*33 - 138*	*04/11/23 09:11*	*04/12/23 13:48*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/11/23 09:11	04/12/23 16:55	1
Benzenethiol	ND	*1 *-	9.9	1.7	ug/L		04/11/23 09:11	04/12/23 16:55	1
Benzoic acid	ND		30	7.2	ug/L		04/11/23 09:11	04/12/23 16:55	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/11/23 09:11	04/12/23 16:55	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/11/23 09:11	04/12/23 16:55	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/11/23 09:11	04/12/23 16:55	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/11/23 09:11	04/12/23 16:55	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/11/23 09:11	04/12/23 16:55	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/11/23 09:11	04/12/23 16:55	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/11/23 09:11	04/12/23 16:55	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/11/23 09:11	04/12/23 16:55	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/11/23 09:11	04/12/23 16:55	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/11/23 09:11	04/12/23 16:55	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/11/23 09:11	04/12/23 16:55	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/11/23 09:11	04/12/23 16:55	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/11/23 09:11	04/12/23 16:55	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/11/23 09:11	04/12/23 16:55	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		04/11/23 09:11	04/12/23 16:55	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/11/23 09:11	04/12/23 16:55	1
Diethyl phthalate	**0.51**	**J**	9.9	0.24	ug/L		04/11/23 09:11	04/12/23 16:55	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/11/23 09:11	04/12/23 16:55	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/11/23 09:11	04/12/23 16:55	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/11/23 09:11	04/12/23 16:55	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/11/23 09:11	04/12/23 16:55	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/11/23 09:11	04/12/23 16:55	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/11/23 09:11	04/12/23 16:55	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/11/23 09:11	04/12/23 16:55	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/11/23 09:11	04/12/23 16:55	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/11/23 09:11	04/12/23 16:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/11/23 09:11	04/12/23 16:55	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/11/23 09:11	04/12/23 16:55	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/11/23 09:11	04/12/23 16:55	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/11/23 09:11	04/12/23 16:55	1
Indene	ND		9.9	0.99	ug/L		04/11/23 09:11	04/12/23 16:55	1
Isophorone	ND		9.9	0.14	ug/L		04/11/23 09:11	04/12/23 16:55	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/11/23 09:11	04/12/23 16:55	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/11/23 09:11	04/12/23 16:55	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/11/23 09:11	04/12/23 16:55	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/11/23 09:11	04/12/23 16:55	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/11/23 09:11	04/12/23 16:55	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/11/23 09:11	04/12/23 16:55	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/11/23 09:11	04/12/23 16:55	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/11/23 09:11	04/12/23 16:55	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/11/23 09:11	04/12/23 16:55	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW4-ROX-040723-EB

Date Collected: 04/07/23 08:35
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/11/23 09:11	04/12/23 16:55	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/11/23 09:11	04/12/23 16:55	1
Pentachlorophenol	ND		20	1.4	ug/L		04/11/23 09:11	04/12/23 16:55	1
Phenol	ND		9.9	2.6	ug/L		04/11/23 09:11	04/12/23 16:55	1
Pyridine	ND		9.9	3.2	ug/L		04/11/23 09:11	04/12/23 16:55	1
Quinoline	ND		9.9	4.4	ug/L		04/11/23 09:11	04/12/23 16:55	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/11/23 09:11	04/12/23 16:55	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/11/23 09:11	04/12/23 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/11/23 09:11*	*04/12/23 16:55*	*1*
2-Fluorophenol	*8*	*S1-*	*13 - 113*	*04/11/23 09:11*	*04/12/23 16:55*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*04/11/23 09:11*	*04/12/23 16:55*	*1*
Phenol-d5	*44*		*17 - 127*	*04/11/23 09:11*	*04/12/23 16:55*	*1*
Terphenyl-d14	*106*		*44 - 149*	*04/11/23 09:11*	*04/12/23 16:55*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*04/11/23 09:11*	*04/12/23 16:55*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.017	ug/L		04/10/23 09:53	04/10/23 15:23	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/10/23 09:53	04/10/23 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*120*		*51 - 149*	*04/10/23 09:53*	*04/10/23 15:23*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW4-ROX-040723

Date Collected: 04/07/23 09:35
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-4

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/19/23 21:59	1
Acrolein	ND		20	3.3	ug/L			04/19/23 21:59	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 21:59	1
Benzene	**0.76**	**J**	1.0	0.13	ug/L			04/19/23 21:59	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 21:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 21:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 21:59	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 21:59	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 21:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 21:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 21:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 21:59	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 21:59	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 21:59	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 21:59	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/23 21:59	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 21:59	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/19/23 21:59	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 21:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 21:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/23 21:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 21:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 21:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 21:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 21:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 21:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 21:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 21:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 21:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 21:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 21:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 21:59	1
2-Hexanone	ND	*+	25	1.4	ug/L			04/19/23 21:59	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 21:59	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 21:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 21:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/23 21:59	1
Methyl tert-butyl ether	**0.27**	**J**	1.0	0.22	ug/L			04/19/23 21:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 21:59	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 21:59	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 21:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 21:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 21:59	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 21:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 21:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 21:59	1

Client Sample ID: MW4-ROX-040723
Date Collected: 04/07/23 09:35
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 21:59	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 21:59	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 21:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 21:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 21:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 21:59	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 21:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 21:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 21:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 21:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 21:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 21:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 21:59	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 21:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 21:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 21:59	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 21:59	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 21:59	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 21:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 21:59	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/19/23 21:59*	*1*
Dibromofluoromethane	*119*		*75 - 126*		*04/19/23 21:59*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/19/23 21:59*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.39	0.063	ug/L		04/11/23 09:11	04/12/23 14:05	2
Acenaphthylene	ND		0.39	0.089	ug/L		04/11/23 09:11	04/12/23 14:05	2
Anthracene	ND		0.39	0.063	ug/L		04/11/23 09:11	04/12/23 14:05	2
Benzo[a]anthracene	ND		0.39	0.091	ug/L		04/11/23 09:11	04/12/23 14:05	2
Benzo[a]pyrene	ND		0.39	0.083	ug/L		04/11/23 09:11	04/12/23 14:05	2
Benzo[b]fluoranthene	ND		0.39	0.067	ug/L		04/11/23 09:11	04/12/23 14:05	2
Benzo[g,h,i]perylene	ND		0.39	0.26	ug/L		04/11/23 09:11	04/12/23 14:05	2
Benzo[k]fluoranthene	ND		0.39	0.20	ug/L		04/11/23 09:11	04/12/23 14:05	2
Chrysene	ND		0.39	0.15	ug/L		04/11/23 09:11	04/12/23 14:05	2
Dibenz(a,h)anthracene	ND		0.39	0.099	ug/L		04/11/23 09:11	04/12/23 14:05	2
Fluoranthene	ND		0.39	0.13	ug/L		04/11/23 09:11	04/12/23 14:05	2
Fluorene	ND		0.39	0.22	ug/L		04/11/23 09:11	04/12/23 14:05	2
Indeno[1,2,3-cd]pyrene	ND		0.39	0.085	ug/L		04/11/23 09:11	04/12/23 14:05	2
1-Methylnaphthalene	ND		0.39	0.15	ug/L		04/11/23 09:11	04/12/23 14:05	2
2-Methylnaphthalene	ND		0.39	0.12	ug/L		04/11/23 09:11	04/12/23 14:05	2
Phenanthrene	ND		0.39	0.071	ug/L		04/11/23 09:11	04/12/23 14:05	2
Pyrene	ND		0.39	0.079	ug/L		04/11/23 09:11	04/12/23 14:05	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*15 - 122*	*04/11/23 09:11*	*04/12/23 14:05*	*2*
Nitrobenzene-d5	*71*		*19 - 130*	*04/11/23 09:11*	*04/12/23 14:05*	*2*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW4-ROX-040723
Date Collected: 04/07/23 09:35
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	91		33 - 138	04/11/23 09:11	04/12/23 14:05	2

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		20	7.5	ug/L		04/11/23 09:11	04/12/23 17:17	2
Benzenethiol	ND	*1 *- UJ	20	3.4	ug/L		04/11/23 09:11	04/12/23 17:17	2
Benzoic acid	ND		59	14	ug/L		04/11/23 09:11	04/12/23 17:17	2
Benzyl alcohol	ND		20	3.9	ug/L		04/11/23 09:11	04/12/23 17:17	2
Bis(2-chloroethoxy)methane	ND		20	0.32	ug/L		04/11/23 09:11	04/12/23 17:17	2
Bis(2-chloroethyl)ether	ND		20	5.3	ug/L		04/11/23 09:11	04/12/23 17:17	2
bis (2-chloroisopropyl) ether	ND		20	0.32	ug/L		04/11/23 09:11	04/12/23 17:17	2
Bis(2-ethylhexyl) phthalate	ND		20	9.9	ug/L		04/11/23 09:11	04/12/23 17:17	2
4-Bromophenyl phenyl ether	ND		20	0.39	ug/L		04/11/23 09:11	04/12/23 17:17	2
Butyl benzyl phthalate	ND		20	0.38	ug/L		04/11/23 09:11	04/12/23 17:17	2
4-Chloroaniline	ND		20	6.7	ug/L		04/11/23 09:11	04/12/23 17:17	2
4-Chloro-3-methylphenol	ND		20	7.5	ug/L		04/11/23 09:11	04/12/23 17:17	2
2-Chloronaphthalene	ND		20	0.28	ug/L		04/11/23 09:11	04/12/23 17:17	2
2-Chlorophenol	ND		20	4.3	ug/L		04/11/23 09:11	04/12/23 17:17	2
4-Chlorophenyl phenyl ether	ND		20	3.9	ug/L		04/11/23 09:11	04/12/23 17:17	2
Dibenz[a,h]acridine	ND		20	2.0	ug/L		04/11/23 09:11	04/12/23 17:17	2
Dibenzofuran	ND		20	0.34	ug/L		04/11/23 09:11	04/12/23 17:17	2
3,3'-Dichlorobenzidine	ND	*+	20	5.1	ug/L		04/11/23 09:11	04/12/23 17:17	2
2,4-Dichlorophenol	ND		20	5.9	ug/L		04/11/23 09:11	04/12/23 17:17	2
Diethyl phthalate	**0.50**	**J** U	20	0.47	ug/L		04/11/23 09:11	04/12/23 17:17	2
2,4-Dimethylphenol	ND		20	6.9	ug/L		04/11/23 09:11	04/12/23 17:17	2
Dimethyl phthalate	ND		20	0.34	ug/L		04/11/23 09:11	04/12/23 17:17	2
Di-n-butyl phthalate	ND		20	5.3	ug/L		04/11/23 09:11	04/12/23 17:17	2
4,6-Dinitro-ortho-cresol	ND		20	3.2	ug/L		04/11/23 09:11	04/12/23 17:17	2
2,4-Dinitrophenol	ND		59	6.7	ug/L		04/11/23 09:11	04/12/23 17:17	2
2,4-Dinitrotoluene	ND		20	3.8	ug/L		04/11/23 09:11	04/12/23 17:17	2
2,6-Dinitrotoluene	ND		20	3.8	ug/L		04/11/23 09:11	04/12/23 17:17	2
Di-n-octyl phthalate	ND		20	0.34	ug/L		04/11/23 09:11	04/12/23 17:17	2
1,4-Dioxane	ND		20	2.0	ug/L		04/11/23 09:11	04/12/23 17:17	2
1,2-Diphenylhydrazine (as Azobenzene)	ND		20	2.0	ug/L		04/11/23 09:11	04/12/23 17:17	2
Hexachlorobenzene	ND		20	0.34	ug/L		04/11/23 09:11	04/12/23 17:17	2
Hexachlorocyclopentadiene	ND	UJ	39	5.1	ug/L		04/11/23 09:11	04/12/23 17:17	2
Hexachloroethane	ND		20	8.3	ug/L		04/11/23 09:11	04/12/23 17:17	2
Indene	ND		20	2.0	ug/L		04/11/23 09:11	04/12/23 17:17	2
Isophorone	ND		20	0.28	ug/L		04/11/23 09:11	04/12/23 17:17	2
2-Methylphenol	ND		20	3.6	ug/L		04/11/23 09:11	04/12/23 17:17	2
3 & 4 Methylphenol	ND		39	0.77	ug/L		04/11/23 09:11	04/12/23 17:17	2
2-Nitroaniline	ND		20	4.3	ug/L		04/11/23 09:11	04/12/23 17:17	2
3-Nitroaniline	ND		20	3.6	ug/L		04/11/23 09:11	04/12/23 17:17	2
4-Nitroaniline	ND		20	3.0	ug/L		04/11/23 09:11	04/12/23 17:17	2
Nitrobenzene	ND		20	0.26	ug/L		04/11/23 09:11	04/12/23 17:17	2
2-Nitrophenol	ND		20	10	ug/L		04/11/23 09:11	04/12/23 17:17	2
4-Nitrophenol	ND		20	4.1	ug/L		04/11/23 09:11	04/12/23 17:17	2
N-Nitrosodimethylamine	ND		20	6.9	ug/L		04/11/23 09:11	04/12/23 17:17	2

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW4-ROX-040723
Date Collected: 04/07/23 09:35
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		20	6.5	ug/L		04/11/23 09:11	04/12/23 17:17	2
N-Nitrosodiphenylamine	ND		20	0.36	ug/L		04/11/23 09:11	04/12/23 17:17	2
Pentachlorophenol	ND		39	2.8	ug/L		04/11/23 09:11	04/12/23 17:17	2
Phenol	ND		20	5.1	ug/L		04/11/23 09:11	04/12/23 17:17	2
Pyridine	ND		20	6.3	ug/L		04/11/23 09:11	04/12/23 17:17	2
Quinoline	ND		20	8.9	ug/L		04/11/23 09:11	04/12/23 17:17	2
2,4,5-Trichlorophenol	ND		20	7.3	ug/L		04/11/23 09:11	04/12/23 17:17	2
2,4,6-Trichlorophenol	ND		20	6.9	ug/L		04/11/23 09:11	04/12/23 17:17	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*04/11/23 09:11*	*04/12/23 17:17*	*2*
2-Fluorophenol	*22*		*13 - 113*	*04/11/23 09:11*	*04/12/23 17:17*	*2*
Nitrobenzene-d5	*64*		*36 - 126*	*04/11/23 09:11*	*04/12/23 17:17*	*2*
Phenol-d5	*48*		*17 - 127*	*04/11/23 09:11*	*04/12/23 17:17*	*2*
Terphenyl-d14	*61*		*44 - 149*	*04/11/23 09:11*	*04/12/23 17:17*	*2*
2,4,6-Tribromophenol	*68*		*26 - 150*	*04/11/23 09:11*	*04/12/23 17:17*	*2*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/10/23 09:53	04/10/23 15:43	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/10/23 09:53	04/10/23 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*04/10/23 09:53*	*04/10/23 15:43*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW25-ROX-040723
Date Collected: 04/07/23 10:45
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/19/23 22:23	1
Acrolein	ND		20	3.3	ug/L			04/19/23 22:23	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 22:23	1
Benzene	**40**		1.0	0.13	ug/L			04/19/23 22:23	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 22:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 22:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 22:23	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 22:23	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 22:23	1
2-Butanone (MEK)	**3.6**	**J**	25	2.6	ug/L			04/19/23 22:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 22:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 22:23	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 22:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 22:23	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 22:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/23 22:23	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 22:23	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/19/23 22:23	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 22:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 22:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/23 22:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 22:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 22:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 22:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 22:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 22:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 22:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 22:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 22:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 22:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 22:23	1
2-Hexanone	ND	*+	25	1.4	ug/L			04/19/23 22:23	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 22:23	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 22:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 22:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/23 22:23	1
Methyl tert-butyl ether	**0.37**	**J**	1.0	0.22	ug/L			04/19/23 22:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 22:23	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 22:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 22:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 22:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 22:23	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 22:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 22:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 22:23	1

Client Sample ID: MW25-ROX-040723
Date Collected: 04/07/23 10:45
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 22:23	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 22:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 22:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 22:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 22:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 22:23	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 22:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 22:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 22:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 22:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 22:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 22:23	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 22:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 22:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 22:23	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 22:23	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 22:23	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 22:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 22:23	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 22:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/19/23 22:23*	*1*
Dibromofluoromethane	*117*		*75 - 126*		*04/19/23 22:23*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*04/19/23 22:23*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/11/23 09:11	04/12/23 14:22	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/11/23 09:11	04/12/23 14:22	1
Anthracene	ND		0.20	0.032	ug/L		04/11/23 09:11	04/12/23 14:22	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/11/23 09:11	04/12/23 14:22	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/11/23 09:11	04/12/23 14:22	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/11/23 09:11	04/12/23 14:22	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/11/23 09:11	04/12/23 14:22	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/11/23 09:11	04/12/23 14:22	1
Chrysene	ND		0.20	0.074	ug/L		04/11/23 09:11	04/12/23 14:22	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/11/23 09:11	04/12/23 14:22	1
Fluoranthene	ND		0.20	0.068	ug/L		04/11/23 09:11	04/12/23 14:22	1
Fluorene	ND		0.20	0.11	ug/L		04/11/23 09:11	04/12/23 14:22	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/11/23 09:11	04/12/23 14:22	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/11/23 09:11	04/12/23 14:22	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/11/23 09:11	04/12/23 14:22	1
Phenanthrene	ND		0.20	0.036	ug/L		04/11/23 09:11	04/12/23 14:22	1
Pyrene	ND		0.20	0.040	ug/L		04/11/23 09:11	04/12/23 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*15 - 122*	*04/11/23 09:11*	*04/12/23 14:22*	*1*
Nitrobenzene-d5	*84*		*19 - 130*	*04/11/23 09:11*	*04/12/23 14:22*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW25-ROX-040723

Lab Sample ID: 400-235800-5

Date Collected: 04/07/23 10:45

Matrix: Water

Date Received: 04/08/23 08:30

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*145*	*S1+*	*33 - 138*	*04/11/23 09:11*	*04/12/23 14:22*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/11/23 09:11	04/12/23 17:40	1
Benzenethiol	ND	*1 *- UJ	10	1.7	ug/L		04/11/23 09:11	04/12/23 17:40	1
Benzoic acid	ND		30	7.3	ug/L		04/11/23 09:11	04/12/23 17:40	1
Benzyl alcohol	ND		10	2.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/11/23 09:11	04/12/23 17:40	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/11/23 09:11	04/12/23 17:40	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/11/23 09:11	04/12/23 17:40	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/11/23 09:11	04/12/23 17:40	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/11/23 09:11	04/12/23 17:40	1
4-Chloroaniline	ND		10	3.4	ug/L		04/11/23 09:11	04/12/23 17:40	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/11/23 09:11	04/12/23 17:40	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/11/23 09:11	04/12/23 17:40	1
2-Chlorophenol	ND		10	2.2	ug/L		04/11/23 09:11	04/12/23 17:40	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
Dibenzofuran	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 17:40	1
3,3'-Dichlorobenzidine	ND	*+	10	2.6	ug/L		04/11/23 09:11	04/12/23 17:40	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
Diethyl phthalate	**0.62**	**J**	10	0.24	ug/L		04/11/23 09:11	04/12/23 17:40	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/11/23 09:11	04/12/23 17:40	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 17:40	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/11/23 09:11	04/12/23 17:40	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/11/23 09:11	04/12/23 17:40	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/11/23 09:11	04/12/23 17:40	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/11/23 09:11	04/12/23 17:40	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/11/23 09:11	04/12/23 17:40	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 17:40	1
1,4-Dioxane	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 17:40	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/11/23 09:11	04/12/23 17:40	1
Hexachloroethane	ND		10	4.2	ug/L		04/11/23 09:11	04/12/23 17:40	1
Indene	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 17:40	1
Isophorone	ND		10	0.14	ug/L		04/11/23 09:11	04/12/23 17:40	1
2-Methylphenol	ND		10	1.8	ug/L		04/11/23 09:11	04/12/23 17:40	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/11/23 09:11	04/12/23 17:40	1
2-Nitroaniline	ND		10	2.2	ug/L		04/11/23 09:11	04/12/23 17:40	1
3-Nitroaniline	ND		10	1.8	ug/L		04/11/23 09:11	04/12/23 17:40	1
4-Nitroaniline	ND		10	1.5	ug/L		04/11/23 09:11	04/12/23 17:40	1
Nitrobenzene	ND		10	0.13	ug/L		04/11/23 09:11	04/12/23 17:40	1
2-Nitrophenol	ND		10	5.2	ug/L		04/11/23 09:11	04/12/23 17:40	1
4-Nitrophenol	ND		10	2.1	ug/L		04/11/23 09:11	04/12/23 17:40	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/11/23 09:11	04/12/23 17:40	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW25-ROX-040723
Date Collected: 04/07/23 10:45
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/11/23 09:11	04/12/23 17:40	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/11/23 09:11	04/12/23 17:40	1
Pentachlorophenol	ND		20	1.4	ug/L		04/11/23 09:11	04/12/23 17:40	1
Phenol	ND		10	2.6	ug/L		04/11/23 09:11	04/12/23 17:40	1
Pyridine	ND		10	3.2	ug/L		04/11/23 09:11	04/12/23 17:40	1
Quinoline	ND		10	4.5	ug/L		04/11/23 09:11	04/12/23 17:40	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/11/23 09:11	04/12/23 17:40	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/11/23 09:11	04/12/23 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*04/11/23 09:11*	*04/12/23 17:40*	*1*
2-Fluorophenol	*7*	*S1-*	*13 - 113*	*04/11/23 09:11*	*04/12/23 17:40*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*04/11/23 09:11*	*04/12/23 17:40*	*1*
Phenol-d5	*36*		*17 - 127*	*04/11/23 09:11*	*04/12/23 17:40*	*1*
Terphenyl-d14	*89*		*44 - 149*	*04/11/23 09:11*	*04/12/23 17:40*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*04/11/23 09:11*	*04/12/23 17:40*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/10/23 09:53	04/10/23 16:03	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/10/23 09:53	04/10/23 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*04/10/23 09:53*	*04/10/23 16:03*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW7-ROX-040723
Date Collected: 04/07/23 11:55
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25000	10000	ug/L			04/20/23 02:56	1000
Acrolein	ND		20000	3300	ug/L			04/20/23 02:56	1000
Acrylonitrile	ND		10000	2800	ug/L			04/20/23 02:56	1000
Bromobenzene	ND		1000	540	ug/L			04/20/23 02:56	1000
Bromochloromethane	ND		1000	210	ug/L			04/20/23 02:56	1000
Bromodichloromethane	ND		1000	500	ug/L			04/20/23 02:56	1000
Bromoform	ND		5000	250	ug/L			04/20/23 02:56	1000
Bromomethane	ND		1000	980	ug/L			04/20/23 02:56	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			04/20/23 02:56	1000
Carbon disulfide	ND		1000	500	ug/L			04/20/23 02:56	1000
Carbon tetrachloride	ND		1000	190	ug/L			04/20/23 02:56	1000
Chlorobenzene	ND		1000	150	ug/L			04/20/23 02:56	1000
Dibromochloromethane	ND		1000	240	ug/L			04/20/23 02:56	1000
Chloroethane	ND		1000	760	ug/L			04/20/23 02:56	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			04/20/23 02:56	1000
Chloroform	ND		1000	1000	ug/L			04/20/23 02:56	1000
1-Chlorohexane	ND	*+	1000	320	ug/L			04/20/23 02:56	1000
Chloromethane	ND		1000	320	ug/L			04/20/23 02:56	1000
cis-1,2-Dichloroethene	ND		1000	200	ug/L			04/20/23 02:56	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			04/20/23 02:56	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			04/20/23 02:56	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			04/20/23 02:56	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			04/20/23 02:56	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			04/20/23 02:56	1000
1,1-Dichloroethane	ND		1000	500	ug/L			04/20/23 02:56	1000
1,2-Dichloroethane	ND		1000	190	ug/L			04/20/23 02:56	1000
1,1-Dichloroethene	ND		1000	500	ug/L			04/20/23 02:56	1000
1,2-Dichloropropane	ND		1000	500	ug/L			04/20/23 02:56	1000
1,3-Dichloropropane	ND		1000	500	ug/L			04/20/23 02:56	1000
2,2-Dichloropropane	ND		1000	500	ug/L			04/20/23 02:56	1000
1,1-Dichloropropene	ND		1000	500	ug/L			04/20/23 02:56	1000
Ethylbenzene	ND		1000	500	ug/L			04/20/23 02:56	1000
Ethyl methacrylate	ND		1000	600	ug/L			04/20/23 02:56	1000
Hexachlorobutadiene	ND		5000	900	ug/L			04/20/23 02:56	1000
2-Hexanone	ND	*+	25000	1400	ug/L			04/20/23 02:56	1000
Isopropy benzene	ND		1000	530	ug/L			04/20/23 02:56	1000
Methylene bromide	ND		5000	220	ug/L			04/20/23 02:56	1000
Methylene Chloride	ND		5000	3000	ug/L			04/20/23 02:56	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			04/20/23 02:56	1000
Methyl tert-butyl ether	ND		1000	220	ug/L			04/20/23 02:56	1000
m-Xylene & p-Xylene	ND		5000	630	ug/L			04/20/23 02:56	1000
Naphthalene	ND		5000	3000	ug/L			04/20/23 02:56	1000
n-Butylbenzene	ND		1000	760	ug/L			04/20/23 02:56	1000
N-Propylbenzene	ND		1000	690	ug/L			04/20/23 02:56	1000
o-Chlorotoluene	ND		1000	570	ug/L			04/20/23 02:56	1000
o-Xylene	ND		5000	600	ug/L			04/20/23 02:56	1000
p-Chlorotoluene	ND		1000	560	ug/L			04/20/23 02:56	1000
p-Isopropyltoluene	ND		1000	710	ug/L			04/20/23 02:56	1000
sec-Butylbenzene	ND		1000	700	ug/L			04/20/23 02:56	1000

Client Sample ID: MW7-ROX-040723
Date Collected: 04/07/23 11:55
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1000	1000	ug/L			04/20/23 02:56	1000
tert-Butylbenzene	ND		1000	630	ug/L			04/20/23 02:56	1000
1,1,1,2-Tetrachloroethane	ND		1000	160	ug/L			04/20/23 02:56	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			04/20/23 02:56	1000
Tetrachloroethene	ND		1000	900	ug/L			04/20/23 02:56	1000
Toluene	**710**	**J**	1000	410	ug/L			04/20/23 02:56	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			04/20/23 02:56	1000
trans-1,3-Dichloropropene	ND		5000	200	ug/L			04/20/23 02:56	1000
1,2,3-Trichlorobenzene	ND		1000	900	ug/L			04/20/23 02:56	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			04/20/23 02:56	1000
1,1,1-Trichloroethane	ND		1000	180	ug/L			04/20/23 02:56	1000
1,1,2-Trichloroethane	ND		5000	210	ug/L			04/20/23 02:56	1000
Trichloroethene	ND		1000	150	ug/L			04/20/23 02:56	1000
Trichlorofluoromethane	ND		1000	520	ug/L			04/20/23 02:56	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			04/20/23 02:56	1000
1,2,4-Trimethy benzene	ND		1000	820	ug/L			04/20/23 02:56	1000
1,3,5-Trimethy benzene	ND		1000	560	ug/L			04/20/23 02:56	1000
Vinyl acetate	ND		25000	930	ug/L			04/20/23 02:56	1000
Vinyl chloride	ND		1000	500	ug/L			04/20/23 02:56	1000
Xylenes, Total	ND		10000	1600	ug/L			04/20/23 02:56	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/20/23 02:56*	*1000*
Dibromofluoromethane	*111*		*75 - 126*		*04/20/23 02:56*	*1000*
Toluene-d8 (Surr)	*103*		*64 - 132*		*04/20/23 02:56*	*1000*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**890000**	J	5000	650	ug/L			04/20/23 13:58	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*04/20/23 13:58*	*5000*
Dibromofluoromethane	*117*		*75 - 126*		*04/20/23 13:58*	*5000*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/20/23 13:58*	*5000*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.033	ug/L		04/11/23 09:11	04/12/23 14:40	1
Acenaphthylene	ND		0.20	0.046	ug/L		04/11/23 09:11	04/12/23 14:40	1
Anthracene	ND		0.20	0.033	ug/L		04/11/23 09:11	04/12/23 14:40	1
Benzo[a]anthracene	ND		0.20	0.047	ug/L		04/11/23 09:11	04/12/23 14:40	1
Benzo[a]pyrene	ND		0.20	0.043	ug/L		04/11/23 09:11	04/12/23 14:40	1
Benzo[b]fluoranthene	ND		0.20	0.035	ug/L		04/11/23 09:11	04/12/23 14:40	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/11/23 09:11	04/12/23 14:40	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/11/23 09:11	04/12/23 14:40	1
Chrysene	ND		0.20	0.075	ug/L		04/11/23 09:11	04/12/23 14:40	1
Dibenz(a,h)anthracene	ND		0.20	0.051	ug/L		04/11/23 09:11	04/12/23 14:40	1
Fluoranthene	ND		0.20	0.069	ug/L		04/11/23 09:11	04/12/23 14:40	1
Fluorene	ND		0.20	0.11	ug/L		04/11/23 09:11	04/12/23 14:40	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.044	ug/L		04/11/23 09:11	04/12/23 14:40	1

Client Sample ID: MW7-ROX-040723
Date Collected: 04/07/23 11:55
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.97**		0.20	0.075	ug/L		04/11/23 09:11	04/12/23 14:40	1
2-Methylnaphthalene	**1.3**	J	0.20	0.061	ug/L		04/11/23 09:11	04/12/23 14:40	1
Phenanthrene	ND		0.20	0.037	ug/L		04/11/23 09:11	04/12/23 14:40	1
Pyrene	ND		0.20	0.041	ug/L		04/11/23 09:11	04/12/23 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*15 - 122*	*04/11/23 09:11*	*04/12/23 14:40*	*1*
Nitrobenzene-d5	*52*		*19 - 130*	*04/11/23 09:11*	*04/12/23 14:40*	*1*
Terphenyl-d14	*65*		*33 - 138*	*04/11/23 09:11*	*04/12/23 14:40*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		04/11/23 09:11	04/12/23 18:02	1
Benzenethiol	ND	*1 *- UJ	10	1.7	ug/L		04/11/23 09:11	04/12/23 18:02	1
Benzoic acid	**20**	J	31	7.4	ug/L		04/11/23 09:11	04/12/23 18:02	1
Benzyl alcohol	ND		10	2.0	ug/L		04/11/23 09:11	04/12/23 18:02	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/11/23 09:11	04/12/23 18:02	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/11/23 09:11	04/12/23 18:02	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/11/23 09:11	04/12/23 18:02	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		04/11/23 09:11	04/12/23 18:02	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/11/23 09:11	04/12/23 18:02	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/11/23 09:11	04/12/23 18:02	1
4-Chloroaniline	ND		10	3.5	ug/L		04/11/23 09:11	04/12/23 18:02	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		04/11/23 09:11	04/12/23 18:02	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/11/23 09:11	04/12/23 18:02	1
2-Chlorophenol	ND		10	2.2	ug/L		04/11/23 09:11	04/12/23 18:02	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/11/23 09:11	04/12/23 18:02	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:02	1
Dibenzofuran	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:02	1
3,3'-Dichlorobenzidine	ND	*+	10	2.6	ug/L		04/11/23 09:11	04/12/23 18:02	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		04/11/23 09:11	04/12/23 18:02	1
Diethyl phthalate	**0.42**	J	10	0.24	ug/L		04/11/23 09:11	04/12/23 18:02	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		04/11/23 09:11	04/12/23 18:02	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:02	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/11/23 09:11	04/12/23 18:02	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/11/23 09:11	04/12/23 18:02	1
2,4-Dinitrophenol	ND		31	3.5	ug/L		04/11/23 09:11	04/12/23 18:02	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/11/23 09:11	04/12/23 18:02	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/11/23 09:11	04/12/23 18:02	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:02	1
1,4-Dioxane	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:02	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:02	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:02	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/11/23 09:11	04/12/23 18:02	1
Hexachloroethane	ND		10	4.3	ug/L		04/11/23 09:11	04/12/23 18:02	1
Indene	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:02	1
Isophorone	ND		10	0.14	ug/L		04/11/23 09:11	04/12/23 18:02	1
2-Methylphenol	ND		10	1.8	ug/L		04/11/23 09:11	04/12/23 18:02	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		04/11/23 09:11	04/12/23 18:02	1

Client Sample ID: MW7-ROX-040723
Date Collected: 04/07/23 11:55
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10	2.2	ug/L		04/11/23 09:11	04/12/23 18:02	1
3-Nitroaniline	ND		10	1.8	ug/L		04/11/23 09:11	04/12/23 18:02	1
4-Nitroaniline	ND		10	1.5	ug/L		04/11/23 09:11	04/12/23 18:02	1
Nitrobenzene	ND		10	0.13	ug/L		04/11/23 09:11	04/12/23 18:02	1
2-Nitrophenol	ND		10	5.3	ug/L		04/11/23 09:11	04/12/23 18:02	1
4-Nitrophenol	ND		10	2.1	ug/L		04/11/23 09:11	04/12/23 18:02	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		04/11/23 09:11	04/12/23 18:02	1
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		04/11/23 09:11	04/12/23 18:02	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/11/23 09:11	04/12/23 18:02	1
Pentachlorophenol	ND		20	1.4	ug/L		04/11/23 09:11	04/12/23 18:02	1
Phenol	**82**	J	10	2.6	ug/L		04/11/23 09:11	04/12/23 18:02	1
Pyridine	ND		10	3.3	ug/L		04/11/23 09:11	04/12/23 18:02	1
Quinoline	ND		10	4.6	ug/L		04/11/23 09:11	04/12/23 18:02	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		04/11/23 09:11	04/12/23 18:02	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		04/11/23 09:11	04/12/23 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*55*		*46 - 124*	*04/11/23 09:11*	*04/12/23 18:02*	*1*
2-Fluorophenol	*13*		*13 - 113*	*04/11/23 09:11*	*04/12/23 18:02*	*1*
Nitrobenzene-d5	*52*		*36 - 126*	*04/11/23 09:11*	*04/12/23 18:02*	*1*
Phenol-d5	*36*		*17 - 127*	*04/11/23 09:11*	*04/12/23 18:02*	*1*
Terphenyl-d14	*50*		*44 - 149*	*04/11/23 09:11*	*04/12/23 18:02*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*04/11/23 09:11*	*04/12/23 18:02*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/10/23 09:53	04/10/23 16:24	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/10/23 09:53	04/10/23 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*115*		*51 - 149*	*04/10/23 09:53*	*04/10/23 16:24*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW7-ROX-040723-DUP
Date Collected: 04/07/23 11:55
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25000	10000	ug/L			04/20/23 03:20	1000
Acrolein	ND		20000	3300	ug/L			04/20/23 03:20	1000
Acrylonitrile	ND		10000	2800	ug/L			04/20/23 03:20	1000
Bromobenzene	ND		1000	540	ug/L			04/20/23 03:20	1000
Bromochloromethane	ND		1000	210	ug/L			04/20/23 03:20	1000
Bromodichloromethane	ND		1000	500	ug/L			04/20/23 03:20	1000
Bromoform	ND		5000	250	ug/L			04/20/23 03:20	1000
Bromomethane	ND		1000	980	ug/L			04/20/23 03:20	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			04/20/23 03:20	1000
Carbon disulfide	ND		1000	500	ug/L			04/20/23 03:20	1000
Carbon tetrachloride	ND		1000	190	ug/L			04/20/23 03:20	1000
Chlorobenzene	ND		1000	150	ug/L			04/20/23 03:20	1000
Dibromochloromethane	ND		1000	240	ug/L			04/20/23 03:20	1000
Chloroethane	ND		1000	760	ug/L			04/20/23 03:20	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			04/20/23 03:20	1000
Chloroform	ND		1000	1000	ug/L			04/20/23 03:20	1000
1-Chlorohexane	ND	*+	1000	320	ug/L			04/20/23 03:20	1000
Chloromethane	ND		1000	320	ug/L			04/20/23 03:20	1000
cis-1,2-Dichloroethene	ND		1000	200	ug/L			04/20/23 03:20	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			04/20/23 03:20	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			04/20/23 03:20	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			04/20/23 03:20	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			04/20/23 03:20	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			04/20/23 03:20	1000
1,1-Dichloroethane	ND		1000	500	ug/L			04/20/23 03:20	1000
1,2-Dichloroethane	ND		1000	190	ug/L			04/20/23 03:20	1000
1,1-Dichloroethene	ND		1000	500	ug/L			04/20/23 03:20	1000
1,2-Dichloropropane	ND		1000	500	ug/L			04/20/23 03:20	1000
1,3-Dichloropropane	ND		1000	500	ug/L			04/20/23 03:20	1000
2,2-Dichloropropane	ND		1000	500	ug/L			04/20/23 03:20	1000
1,1-Dichloropropene	ND		1000	500	ug/L			04/20/23 03:20	1000
Ethylbenzene	ND		1000	500	ug/L			04/20/23 03:20	1000
Ethyl methacrylate	ND		1000	600	ug/L			04/20/23 03:20	1000
Hexachlorobutadiene	ND		5000	900	ug/L			04/20/23 03:20	1000
2-Hexanone	ND	*+	25000	1400	ug/L			04/20/23 03:20	1000
Isopropy benzene	ND		1000	530	ug/L			04/20/23 03:20	1000
Methylene bromide	ND		5000	220	ug/L			04/20/23 03:20	1000
Methylene Chloride	ND		5000	3000	ug/L			04/20/23 03:20	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			04/20/23 03:20	1000
Methyl tert-butyl ether	ND		1000	220	ug/L			04/20/23 03:20	1000
m-Xylene & p-Xylene	ND		5000	630	ug/L			04/20/23 03:20	1000
Naphthalene	ND		5000	3000	ug/L			04/20/23 03:20	1000
n-Butylbenzene	ND		1000	760	ug/L			04/20/23 03:20	1000
N-Propylbenzene	ND		1000	690	ug/L			04/20/23 03:20	1000
o-Chlorotoluene	ND		1000	570	ug/L			04/20/23 03:20	1000
o-Xylene	ND		5000	600	ug/L			04/20/23 03:20	1000
p-Chlorotoluene	ND		1000	560	ug/L			04/20/23 03:20	1000
p-Isopropyltoluene	ND		1000	710	ug/L			04/20/23 03:20	1000
sec-Butylbenzene	ND		1000	700	ug/L			04/20/23 03:20	1000

Client Sample ID: MW7-ROX-040723-DUP
Date Collected: 04/07/23 11:55
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1000	1000	ug/L			04/20/23 03:20	1000
tert-Butylbenzene	ND		1000	630	ug/L			04/20/23 03:20	1000
1,1,1,2-Tetrachloroethane	ND		1000	160	ug/L			04/20/23 03:20	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			04/20/23 03:20	1000
Tetrachloroethene	ND		1000	900	ug/L			04/20/23 03:20	1000
Toluene	**430**	**J**	1000	410	ug/L			04/20/23 03:20	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			04/20/23 03:20	1000
trans-1,3-Dichloropropene	ND		5000	200	ug/L			04/20/23 03:20	1000
1,2,3-Trichlorobenzene	ND		1000	900	ug/L			04/20/23 03:20	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			04/20/23 03:20	1000
1,1,1-Trichloroethane	ND		1000	180	ug/L			04/20/23 03:20	1000
1,1,2-Trichloroethane	ND		5000	210	ug/L			04/20/23 03:20	1000
Trichloroethene	ND		1000	150	ug/L			04/20/23 03:20	1000
Trichlorofluoromethane	ND		1000	520	ug/L			04/20/23 03:20	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			04/20/23 03:20	1000
1,2,4-Trimethy benzene	ND		1000	820	ug/L			04/20/23 03:20	1000
1,3,5-Trimethy benzene	ND		1000	560	ug/L			04/20/23 03:20	1000
Vinyl acetate	ND		25000	930	ug/L			04/20/23 03:20	1000
Vinyl chloride	ND		1000	500	ug/L			04/20/23 03:20	1000
Xylenes, Total	ND		10000	1600	ug/L			04/20/23 03:20	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/20/23 03:20*	*1000*
Dibromofluoromethane	*110*		*75 - 126*		*04/20/23 03:20*	*1000*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/20/23 03:20*	*1000*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**620000**	J	5000	650	ug/L			04/20/23 14:22	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/20/23 14:22*	*5000*
Dibromofluoromethane	*118*		*75 - 126*		*04/20/23 14:22*	*5000*
Toluene-d8 (Surr)	*103*		*64 - 132*		*04/20/23 14:22*	*5000*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/11/23 09:11	04/12/23 14:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/11/23 09:11	04/12/23 14:57	1
Anthracene	ND		0.20	0.032	ug/L		04/11/23 09:11	04/12/23 14:57	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/11/23 09:11	04/12/23 14:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/11/23 09:11	04/12/23 14:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/11/23 09:11	04/12/23 14:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/11/23 09:11	04/12/23 14:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/11/23 09:11	04/12/23 14:57	1
Chrysene	ND		0.20	0.074	ug/L		04/11/23 09:11	04/12/23 14:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/11/23 09:11	04/12/23 14:57	1
Fluoranthene	ND		0.20	0.068	ug/L		04/11/23 09:11	04/12/23 14:57	1
Fluorene	ND		0.20	0.11	ug/L		04/11/23 09:11	04/12/23 14:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/11/23 09:11	04/12/23 14:57	1

Client Sample ID: MW7-ROX-040723-DUP
Date Collected: 04/07/23 11:55
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**1.1**		0.20	0.074	ug/L		04/11/23 09:11	04/12/23 14:57	1
2-Methylnaphthalene	**1.8**	J	0.20	0.060	ug/L		04/11/23 09:11	04/12/23 14:57	1
Phenanthrene	ND		0.20	0.036	ug/L		04/11/23 09:11	04/12/23 14:57	1
Pyrene	ND		0.20	0.040	ug/L		04/11/23 09:11	04/12/23 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*94*		*15 - 122*	*04/11/23 09:11*	*04/12/23 14:57*	*1*
Nitrobenzene-d5	*86*		*19 - 130*	*04/11/23 09:11*	*04/12/23 14:57*	*1*
Terphenyl-d14	*106*		*33 - 138*	*04/11/23 09:11*	*04/12/23 14:57*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/11/23 09:11	04/12/23 18:24	1
Benzenethiol	ND	*1 *- UJ	10	1.7	ug/L		04/11/23 09:11	04/12/23 18:24	1
Benzoic acid	**21**	J	30	7.3	ug/L		04/11/23 09:11	04/12/23 18:24	1
Benzyl alcohol	ND		10	2.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/11/23 09:11	04/12/23 18:24	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/11/23 09:11	04/12/23 18:24	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/11/23 09:11	04/12/23 18:24	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/11/23 09:11	04/12/23 18:24	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/11/23 09:11	04/12/23 18:24	1
4-Chloroaniline	ND		10	3.4	ug/L		04/11/23 09:11	04/12/23 18:24	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/11/23 09:11	04/12/23 18:24	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/11/23 09:11	04/12/23 18:24	1
2-Chlorophenol	ND		10	2.2	ug/L		04/11/23 09:11	04/12/23 18:24	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
Dibenzofuran	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:24	1
3,3'-Dichlorobenzidine	ND	*+	10	2.6	ug/L		04/11/23 09:11	04/12/23 18:24	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
Diethyl phthalate	**0.73**	J	10	0.24	ug/L		04/11/23 09:11	04/12/23 18:24	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/11/23 09:11	04/12/23 18:24	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:24	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/11/23 09:11	04/12/23 18:24	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/11/23 09:11	04/12/23 18:24	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/11/23 09:11	04/12/23 18:24	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/11/23 09:11	04/12/23 18:24	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/11/23 09:11	04/12/23 18:24	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:24	1
1,4-Dioxane	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/11/23 09:11	04/12/23 18:24	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/11/23 09:11	04/12/23 18:24	1
Hexachloroethane	ND		10	4.2	ug/L		04/11/23 09:11	04/12/23 18:24	1
Indene	ND		10	1.0	ug/L		04/11/23 09:11	04/12/23 18:24	1
Isophorone	ND		10	0.14	ug/L		04/11/23 09:11	04/12/23 18:24	1
2-Methylphenol	ND		10	1.8	ug/L		04/11/23 09:11	04/12/23 18:24	1
3 & 4 Methylphenol	**0.73**	J	20	0.39	ug/L		04/11/23 09:11	04/12/23 18:24	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW7-ROX-040723-DUP

Lab Sample ID: 400-235800-7

Date Collected: 04/07/23 11:55

Matrix: Water

Date Received: 04/08/23 08:30

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10	2.2	ug/L		04/11/23 09:11	04/12/23 18:24	1
3-Nitroaniline	ND		10	1.8	ug/L		04/11/23 09:11	04/12/23 18:24	1
4-Nitroaniline	ND		10	1.5	ug/L		04/11/23 09:11	04/12/23 18:24	1
Nitrobenzene	ND		10	0.13	ug/L		04/11/23 09:11	04/12/23 18:24	1
2-Nitrophenol	ND		10	5.2	ug/L		04/11/23 09:11	04/12/23 18:24	1
4-Nitrophenol	ND		10	2.1	ug/L		04/11/23 09:11	04/12/23 18:24	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/11/23 09:11	04/12/23 18:24	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/11/23 09:11	04/12/23 18:24	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/11/23 09:11	04/12/23 18:24	1
Pentachlorophenol	ND		20	1.4	ug/L		04/11/23 09:11	04/12/23 18:24	1
Phenol	**130**	J	10	2.6	ug/L		04/11/23 09:11	04/12/23 18:24	1
Pyridine	ND		10	3.2	ug/L		04/11/23 09:11	04/12/23 18:24	1
Quinoline	ND		10	4.5	ug/L		04/11/23 09:11	04/12/23 18:24	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/11/23 09:11	04/12/23 18:24	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/11/23 09:11	04/12/23 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*04/11/23 09:11*	*04/12/23 18:24*	*1*
2-Fluorophenol	*26*		*13 - 113*	*04/11/23 09:11*	*04/12/23 18:24*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*04/11/23 09:11*	*04/12/23 18:24*	*1*
Phenol-d5	*59*		*17 - 127*	*04/11/23 09:11*	*04/12/23 18:24*	*1*
Terphenyl-d14	*73*		*44 - 149*	*04/11/23 09:11*	*04/12/23 18:24*	*1*
2,4,6-Tribromophenol	*88*		*26 - 150*	*04/11/23 09:11*	*04/12/23 18:24*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/10/23 09:53	04/10/23 16:44	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/10/23 09:53	04/10/23 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*51 - 149*	*04/10/23 09:53*	*04/10/23 16:44*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW12-ROX-040723
Date Collected: 04/07/23 13:40
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-8
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			04/19/23 22:48	1
Acrolein	ND		20	3.3	ug/L			04/19/23 22:48	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 22:48	1
Benzene	**2.0**		1.0	0.13	ug/L			04/19/23 22:48	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 22:48	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 22:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 22:48	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 22:48	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 22:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 22:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 22:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 22:48	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 22:48	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 22:48	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 22:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/23 22:48	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 22:48	1
1-Chlorohexane	ND	*+	1.0	0.32	ug/L			04/19/23 22:48	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 22:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 22:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/23 22:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 22:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 22:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 22:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 22:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 22:48	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 22:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 22:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 22:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 22:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 22:48	1
2-Hexanone	ND	*+	25	1.4	ug/L			04/19/23 22:48	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 22:48	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 22:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 22:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/23 22:48	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 22:48	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 22:48	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 22:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 22:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 22:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 22:48	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 22:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 22:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 22:48	1

Client Sample ID: MW12-ROX-040723
Date Collected: 04/07/23 13:40
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-8
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 22:48	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 22:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 22:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 22:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 22:48	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 22:48	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 22:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:48	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 22:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 22:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 22:48	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 22:48	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 22:48	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 22:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 22:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 22:48	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 22:48	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 22:48	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 22:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 22:48	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*04/19/23 22:48*	*1*
Dibromofluoromethane	*119*		*75 - 126*		*04/19/23 22:48*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/19/23 22:48*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/11/23 09:11	04/12/23 15:14	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/11/23 09:11	04/12/23 15:14	1
Anthracene	ND		0.20	0.031	ug/L		04/11/23 09:11	04/12/23 15:14	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/11/23 09:11	04/12/23 15:14	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/11/23 09:11	04/12/23 15:14	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/11/23 09:11	04/12/23 15:14	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/11/23 09:11	04/12/23 15:14	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/11/23 09:11	04/12/23 15:14	1
Chrysene	ND		0.20	0.073	ug/L		04/11/23 09:11	04/12/23 15:14	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/11/23 09:11	04/12/23 15:14	1
Fluoranthene	ND		0.20	0.067	ug/L		04/11/23 09:11	04/12/23 15:14	1
Fluorene	ND		0.20	0.11	ug/L		04/11/23 09:11	04/12/23 15:14	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/11/23 09:11	04/12/23 15:14	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/11/23 09:11	04/12/23 15:14	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/11/23 09:11	04/12/23 15:14	1
Phenanthrene	ND		0.20	0.035	ug/L		04/11/23 09:11	04/12/23 15:14	1
Pyrene	ND		0.20	0.039	ug/L		04/11/23 09:11	04/12/23 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*15 - 122*	*04/11/23 09:11*	*04/12/23 15:14*	*1*
Nitrobenzene-d5	*85*		*19 - 130*	*04/11/23 09:11*	*04/12/23 15:14*	*1*

Client Sample ID: MW12-ROX-040723

Lab Sample ID: 400-235800-8

Date Collected: 04/07/23 13:40

Matrix: Water

Date Received: 04/08/23 08:30

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	133		33 - 138	04/11/23 09:11	04/12/23 15:14	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/11/23 09:11	04/12/23 18:45	1
Benzenethiol	ND	*1 *- UJ	9.8	1.7	ug/L		04/11/23 09:11	04/12/23 18:45	1
Benzoic acid	ND	UJ	29	7.2	ug/L		04/11/23 09:11	04/12/23 18:45	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/11/23 09:11	04/12/23 18:45	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/11/23 09:11	04/12/23 18:45	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		04/11/23 09:11	04/12/23 18:45	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/11/23 09:11	04/12/23 18:45	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/11/23 09:11	04/12/23 18:45	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/11/23 09:11	04/12/23 18:45	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/11/23 09:11	04/12/23 18:45	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/11/23 09:11	04/12/23 18:45	1
4-Chloro-3-methylphenol	ND	UJ	9.8	3.7	ug/L		04/11/23 09:11	04/12/23 18:45	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/11/23 09:11	04/12/23 18:45	1
2-Chlorophenol	ND	UJ	9.8	2.2	ug/L		04/11/23 09:11	04/12/23 18:45	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/11/23 09:11	04/12/23 18:45	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/11/23 09:11	04/12/23 18:45	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/11/23 09:11	04/12/23 18:45	1
3,3'-Dichlorobenzidine	ND	*+	9.8	2.6	ug/L		04/11/23 09:11	04/12/23 18:45	1
2,4-Dichlorophenol	ND	UJ	9.8	2.9	ug/L		04/11/23 09:11	04/12/23 18:45	1
Diethyl phthalate	**0.64**	**J**	9.8	0.24	ug/L		04/11/23 09:11	04/12/23 18:45	1
2,4-Dimethylphenol	ND	UJ	9.8	3.4	ug/L		04/11/23 09:11	04/12/23 18:45	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/11/23 09:11	04/12/23 18:45	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		04/11/23 09:11	04/12/23 18:45	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.8	1.6	ug/L		04/11/23 09:11	04/12/23 18:45	1
2,4-Dinitrophenol	ND	UJ	29	3.3	ug/L		04/11/23 09:11	04/12/23 18:45	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/11/23 09:11	04/12/23 18:45	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/11/23 09:11	04/12/23 18:45	1
Di-n-octyl phthalate	**2.7**	**J**	9.8	0.17	ug/L		04/11/23 09:11	04/12/23 18:45	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/11/23 09:11	04/12/23 18:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/11/23 09:11	04/12/23 18:45	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/11/23 09:11	04/12/23 18:45	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/11/23 09:11	04/12/23 18:45	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/11/23 09:11	04/12/23 18:45	1
Indene	ND		9.8	0.98	ug/L		04/11/23 09:11	04/12/23 18:45	1
Isophorone	ND		9.8	0.14	ug/L		04/11/23 09:11	04/12/23 18:45	1
2-Methylphenol	ND	UJ	9.8	1.8	ug/L		04/11/23 09:11	04/12/23 18:45	1
3 & 4 Methylphenol	ND	UJ	20	0.38	ug/L		04/11/23 09:11	04/12/23 18:45	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/11/23 09:11	04/12/23 18:45	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/11/23 09:11	04/12/23 18:45	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/11/23 09:11	04/12/23 18:45	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/11/23 09:11	04/12/23 18:45	1
2-Nitrophenol	ND	UJ	9.8	5.1	ug/L		04/11/23 09:11	04/12/23 18:45	1
4-Nitrophenol	ND	UJ	9.8	2.1	ug/L		04/11/23 09:11	04/12/23 18:45	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/11/23 09:11	04/12/23 18:45	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: MW12-ROX-040723
Date Collected: 04/07/23 13:40
Date Received: 04/08/23 08:30

Lab Sample ID: 400-235800-8
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/11/23 09:11	04/12/23 18:45	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/11/23 09:11	04/12/23 18:45	1
Pentachlorophenol	ND	UJ	20	1.4	ug/L		04/11/23 09:11	04/12/23 18:45	1
Phenol	ND	UJ	9.8	2.6	ug/L		04/11/23 09:11	04/12/23 18:45	1
Pyridine	ND		9.8	3.1	ug/L		04/11/23 09:11	04/12/23 18:45	1
Quinoline	ND		9.8	4.4	ug/L		04/11/23 09:11	04/12/23 18:45	1
2,4,5-Trichlorophenol	ND	UJ	9.8	3.6	ug/L		04/11/23 09:11	04/12/23 18:45	1
2,4,6-Trichlorophenol	ND	UJ	9.8	3.4	ug/L		04/11/23 09:11	04/12/23 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*04/11/23 09:11*	*04/12/23 18:45*	*1*
2-Fluorophenol	*8*	*S1-*	*13 - 113*	*04/11/23 09:11*	*04/12/23 18:45*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*04/11/23 09:11*	*04/12/23 18:45*	*1*
Phenol-d5	*21*		*17 - 127*	*04/11/23 09:11*	*04/12/23 18:45*	*1*
Terphenyl-d14	*89*		*44 - 149*	*04/11/23 09:11*	*04/12/23 18:45*	*1*
2,4,6-Tribromophenol	*14*	*S1-*	*26 - 150*	*04/11/23 09:11*	*04/12/23 18:45*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/10/23 09:53	04/10/23 17:05	1
1,2-D bromoethane	ND		0.019	0.014	ug/L		04/10/23 09:53	04/10/23 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/10/23 09:53*	*04/10/23 17:05*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-235800-1	TB-ROX-040723-8260	95	118	104
400-235800-3	MW4-ROX-040723-EB	93	118	103
400-235800-4	MW4-ROX-040723	94	119	102
400-235800-5	MW25-ROX-040723	94	117	104
400-235800-6	MW7-ROX-040723	92	111	103
400-235800-6 - DL	MW7-ROX-040723	91	117	102
400-235800-7	MW7-ROX-040723-DUP	92	110	102
400-235800-7 - DL	MW7-ROX-040723-DUP	92	118	103
400-235800-8	MW12-ROX-040723	91	119	102
LCS 400-621435/1002	Lab Control Sample	92	113	100
LCS 400-621594/1002	Lab Control Sample	90	114	98
MB 400-621435/4	Method Blank	94	113	103
MB 400-621594/4	Method Blank	94	117	104

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-235800-3	MW4-ROX-040723-EB	87	8 S1-	80	44	106	77
400-235800-4	MW4-ROX-040723	70	22	64	48	61	68
400-235800-5	MW25-ROX-040723	74	7 S1-	67	36	89	73
400-235800-6	MW7-ROX-040723	55	13	52	36	50	61
400-235800-7	MW7-ROX-040723-DUP	78	26	73	59	73	88
400-235800-8	MW12-ROX-040723	79	8 S1-	72	21	89	14 S1-
LCS 400-620225/2-A	Lab Control Sample	83	54	85	78	93	95
LCS 400-620225/5-A	Lab Control Sample	88	45	81	74	105	55
LCSD 400-620225/6-A	Lab Control Sample Dup	91	42	84	73	108	75
MB 400-620225/1-A	Method Blank	90	23	84	64	110	78

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-235800-3	MW4-ROX-040723-EB	103	88	171 S1+

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-235800-4	MW4-ROX-040723	78	71	91
400-235800-5	MW25-ROX-040723	88	84	145 S1+
400-235800-6	MW7-ROX-040723	58	52	65
400-235800-7	MW7-ROX-040723-DUP	94	86	106
400-235800-8	MW12-ROX-040723	96	85	133
LCS 400-620225/2-A	Lab Control Sample	80	77	114
MB 400-620225/1-A	Method Blank	121	106	193 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB2
Lab Sample ID	Client Sample ID	(51-149)
400-235800-2	TB-ROX-040723-8011	103 p
400-235800-3	MW4-ROX-040723-EB	120
400-235800-4	MW4-ROX-040723	104
400-235800-5	MW25-ROX-040723	94
400-235800-6	MW7-ROX-040723	115
400-235800-7	MW7-ROX-040723-DUP	117
400-235800-8	MW12-ROX-040723	113
LCS 400-620189/2-A	Lab Control Sample	134
LCSD 400-620189/3-A	Lab Control Sample Dup	143
MB 400-620189/1-A	Method Blank	109

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: TB-ROX-040723-8260
Lab Sample ID: 400-235800-1
Date Collected: 04/07/23 12:00
Matrix: Water
Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621435	04/19/23 20:44	JE	EET PEN

Client Sample ID: TB-ROX-040723-8011
Lab Sample ID: 400-235800-2
Date Collected: 04/07/23 12:00
Matrix: Water
Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.3 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 15:02	PG	EET PEN

Client Sample ID: MW4-ROX-040723-EB
Lab Sample ID: 400-235800-3
Date Collected: 04/07/23 08:35
Matrix: Water
Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621435	04/19/23 21:09	JE	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620515	04/12/23 16:55	VC1	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620562	04/12/23 13:48	KJA	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 15:23	PG	EET PEN

Client Sample ID: MW4-ROX-040723
Lab Sample ID: 400-235800-4
Date Collected: 04/07/23 09:35
Matrix: Water
Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621435	04/19/23 21:59	JE	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D		2	0.4 mL	0.4 mL	620515	04/12/23 17:17	VC1	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		2	0.4 mL	0.4 mL	620562	04/12/23 14:05	KJA	EET PEN
Total/NA	Prep	8011			34.5 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 15:43	PG	EET PEN

Client Sample ID: MW25-ROX-040723
Lab Sample ID: 400-235800-5
Date Collected: 04/07/23 10:45
Matrix: Water
Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621435	04/19/23 22:23	JE	EET PEN
Total/NA	Prep	3520C			250.6 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620515	04/12/23 17:40	VC1	EET PEN

Client Sample ID: MW25-ROX-040723

Lab Sample ID: 400-235800-5

Date Collected: 04/07/23 10:45

Matrix: Water

Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250.6 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620562	04/12/23 14:22	KJA	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 16:03	PG	EET PEN

Client Sample ID: MW7-ROX-040723

Lab Sample ID: 400-235800-6

Date Collected: 04/07/23 11:55

Matrix: Water

Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	5 mL	5 mL	621435	04/20/23 02:56	JE	EET PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	621594	04/20/23 13:58	JE	EET PEN
Total/NA	Prep	3520C			245.6 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620515	04/12/23 18:02	VC1	EET PEN
Total/NA	Prep	3520C			245.6 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620562	04/12/23 14:40	KJA	EET PEN
Total/NA	Prep	8011			34.6 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 16:24	PG	EET PEN

Client Sample ID: MW7-ROX-040723-DUP

Lab Sample ID: 400-235800-7

Date Collected: 04/07/23 11:55

Matrix: Water

Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	5 mL	5 mL	621435	04/20/23 03:20	JE	EET PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	621594	04/20/23 14:22	JE	EET PEN
Total/NA	Prep	3520C			251 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620515	04/12/23 18:24	VC1	EET PEN
Total/NA	Prep	3520C			251 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620562	04/12/23 14:57	KJA	EET PEN
Total/NA	Prep	8011			36 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 16:44	PG	EET PEN

Client Sample ID: MW12-ROX-040723

Lab Sample ID: 400-235800-8

Date Collected: 04/07/23 13:40

Matrix: Water

Date Received: 04/08/23 08:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621435	04/19/23 22:48	JE	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620515	04/12/23 18:45	VC1	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	620225	04/11/23 09:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620562	04/12/23 15:14	KJA	EET PEN
Total/NA	Prep	8011			36.5 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 17:05	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-620189/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 14:01	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-620225/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 12:09	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620348	04/11/23 16:41	KJA	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621435/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621435	04/19/23 17:51	JE	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621594/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621594	04/20/23 11:28	JE	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620189/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 14:21	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620225/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 13:15	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	620348	04/11/23 16:58	KJA	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235800-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620225/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 12:31	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621435/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621435	04/19/23 16:44	JE	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621594/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621594	04/20/23 10:18	JE	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-620189/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	620189	04/10/23 09:53	PG	EET PEN
Total/NA	Analysis	8011		1			620259	04/10/23 14:42	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-620225/6-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620225	04/10/23 11:20	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620356	04/11/23 12:53	VC1	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 621435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-1	TB-ROX-040723-8260	Total/NA	Water	8260B	
400-235800-3	MW4-ROX-040723-EB	Total/NA	Water	8260B	
400-235800-4	MW4-ROX-040723	Total/NA	Water	8260B	
400-235800-5	MW25-ROX-040723	Total/NA	Water	8260B	
400-235800-6	MW7-ROX-040723	Total/NA	Water	8260B	
400-235800-7	MW7-ROX-040723-DUP	Total/NA	Water	8260B	
400-235800-8	MW12-ROX-040723	Total/NA	Water	8260B	
MB 400-621435/4	Method Blank	Total/NA	Water	8260B	
LCS 400-621435/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 621594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-6 - DL	MW7-ROX-040723	Total/NA	Water	8260B	
400-235800-7 - DL	MW7-ROX-040723-DUP	Total/NA	Water	8260B	
MB 400-621594/4	Method Blank	Total/NA	Water	8260B	
LCS 400-621594/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 620225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-3	MW4-ROX-040723-EB	Total/NA	Water	3520C	
400-235800-4	MW4-ROX-040723	Total/NA	Water	3520C	
400-235800-5	MW25-ROX-040723	Total/NA	Water	3520C	
400-235800-6	MW7-ROX-040723	Total/NA	Water	3520C	
400-235800-7	MW7-ROX-040723-DUP	Total/NA	Water	3520C	
400-235800-8	MW12-ROX-040723	Total/NA	Water	3520C	
MB 400-620225/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-620225/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-620225/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-620225/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 620348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-620225/1-A	Method Blank	Total/NA	Water	8270D LL	620225
LCS 400-620225/2-A	Lab Control Sample	Total/NA	Water	8270D LL	620225

Analysis Batch: 620356

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-620225/1-A	Method Blank	Total/NA	Water	8270D	620225
LCS 400-620225/2-A	Lab Control Sample	Total/NA	Water	8270D	620225
LCS 400-620225/5-A	Lab Control Sample	Total/NA	Water	8270D	620225
LCSD 400-620225/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	620225

Analysis Batch: 620515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-3	MW4-ROX-040723-EB	Total/NA	Water	8270D	620225
400-235800-4	MW4-ROX-040723	Total/NA	Water	8270D	620225
400-235800-5	MW25-ROX-040723	Total/NA	Water	8270D	620225
400-235800-6	MW7-ROX-040723	Total/NA	Water	8270D	620225
400-235800-7	MW7-ROX-040723-DUP	Total/NA	Water	8270D	620225

GC/MS Semi VOA (Continued)

Analysis Batch: 620515 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-8	MW12-ROX-040723	Total/NA	Water	8270D	620225

Analysis Batch: 620562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-3	MW4-ROX-040723-EB	Total/NA	Water	8270D LL	620225
400-235800-4	MW4-ROX-040723	Total/NA	Water	8270D LL	620225
400-235800-5	MW25-ROX-040723	Total/NA	Water	8270D LL	620225
400-235800-6	MW7-ROX-040723	Total/NA	Water	8270D LL	620225
400-235800-7	MW7-ROX-040723-DUP	Total/NA	Water	8270D LL	620225
400-235800-8	MW12-ROX-040723	Total/NA	Water	8270D LL	620225

GC Semi VOA

Prep Batch: 620189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-2	TB-ROX-040723-8011	Total/NA	Water	8011	
400-235800-3	MW4-ROX-040723-EB	Total/NA	Water	8011	
400-235800-4	MW4-ROX-040723	Total/NA	Water	8011	
400-235800-5	MW25-ROX-040723	Total/NA	Water	8011	
400-235800-6	MW7-ROX-040723	Total/NA	Water	8011	
400-235800-7	MW7-ROX-040723-DUP	Total/NA	Water	8011	
400-235800-8	MW12-ROX-040723	Total/NA	Water	8011	
MB 400-620189/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-620189/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-620189/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 620259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235800-2	TB-ROX-040723-8011	Total/NA	Water	8011	620189
400-235800-3	MW4-ROX-040723-EB	Total/NA	Water	8011	620189
400-235800-4	MW4-ROX-040723	Total/NA	Water	8011	620189
400-235800-5	MW25-ROX-040723	Total/NA	Water	8011	620189
400-235800-6	MW7-ROX-040723	Total/NA	Water	8011	620189
400-235800-7	MW7-ROX-040723-DUP	Total/NA	Water	8011	620189
400-235800-8	MW12-ROX-040723	Total/NA	Water	8011	620189
MB 400-620189/1-A	Method Blank	Total/NA	Water	8011	620189
LCS 400-620189/2-A	Lab Control Sample	Total/NA	Water	8011	620189
LCSD 400-620189/3-A	Lab Control Sample Dup	Total/NA	Water	8011	620189

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621435/4
Matrix: Water
Analysis Batch: 621435

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/23 17:51	1
Acrolein	ND		20	3.3	ug/L			04/19/23 17:51	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 17:51	1
Benzene	ND		1.0	0.13	ug/L			04/19/23 17:51	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 17:51	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 17:51	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 17:51	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 17:51	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 17:51	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 17:51	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 17:51	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 17:51	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 17:51	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 17:51	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 17:51	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/23 17:51	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 17:51	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/23 17:51	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 17:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 17:51	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/23 17:51	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 17:51	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 17:51	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 17:51	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 17:51	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 17:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 17:51	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 17:51	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 17:51	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 17:51	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 17:51	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 17:51	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 17:51	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 17:51	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 17:51	1
2-Hexanone	ND		25	1.4	ug/L			04/19/23 17:51	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 17:51	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 17:51	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 17:51	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/23 17:51	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 17:51	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 17:51	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 17:51	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 17:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 17:51	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 17:51	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 17:51	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 17:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621435/4
Matrix: Water
Analysis Batch: 621435

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 17:51	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 17:51	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 17:51	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 17:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 17:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 17:51	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 17:51	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 17:51	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 17:51	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 17:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 17:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 17:51	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 17:51	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 17:51	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 17:51	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 17:51	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 17:51	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 17:51	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 17:51	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 17:51	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 17:51	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 17:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/19/23 17:51*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*04/19/23 17:51*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*04/19/23 17:51*	*1*

Lab Sample ID: LCS 400-621435/1002
Matrix: Water
Analysis Batch: 621435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	366	*+	ug/L		183	43 - 160
Acrolein	500	591		ug/L		118	38 - 160
Acrylonitrile	500	579		ug/L		116	64 - 142
Benzene	50.0	43.5		ug/L		87	70 - 130
Bromobenzene	50.0	46.3		ug/L		93	70 - 132
Bromochloromethane	50.0	44.7		ug/L		89	70 - 130
Bromodichloromethane	50.0	49.5		ug/L		99	67 - 133
Bromoform	50.0	45.6		ug/L		91	57 - 140
Bromomethane	50.0	65.4		ug/L		131	10 - 160
2-Butanone (MEK)	200	190		ug/L		95	61 - 145
Carbon disulfide	50.0	37.0		ug/L		74	61 - 137
Carbon tetrachloride	50.0	53.9		ug/L		108	61 - 137
Chlorobenzene	50.0	48.9		ug/L		98	70 - 130
Dibromochloromethane	50.0	50.4		ug/L		101	67 - 135
Chloroethane	50.0	45.9		ug/L		92	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621435/1002
Matrix: Water
Analysis Batch: 621435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	45.6		ug/L		91	10 - 160
Chloroform	50.0	50.8		ug/L		102	69 - 130
1-Chlorohexane	50.0	65.5	*+	ug/L		131	69 - 130
Chloromethane	50.0	54.4		ug/L		109	58 - 137
cis-1,2-Dichloroethene	50.0	52.3		ug/L		105	68 - 130
cis-1,3-Dichloropropene	50.0	43.3		ug/L		87	69 - 132
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	67 - 130
1,3-Dichlorobenzene	50.0	49.2		ug/L		98	70 - 130
1,4-Dichlorobenzene	50.0	50.1		ug/L		100	70 - 130
Dichlorodifluoromethane	50.0	31.1		ug/L		62	41 - 146
1,1-Dichloroethane	50.0	49.3		ug/L		99	70 - 130
1,2-Dichloroethane	50.0	57.8		ug/L		116	69 - 130
1,1-Dichloroethene	50.0	42.7		ug/L		85	63 - 134
1,2-Dichloropropane	50.0	47.9		ug/L		96	70 - 130
1,3-Dichloropropane	50.0	47.5		ug/L		95	70 - 130
2,2-Dichloropropane	50.0	47.7		ug/L		95	52 - 135
1,1-Dichloropropene	50.0	46.4		ug/L		93	70 - 130
Ethylbenzene	50.0	50.2		ug/L		100	70 - 130
Ethyl methacrylate	50.0	45.0		ug/L		90	68 - 130
Hexachlorobutadiene	50.0	64.3		ug/L		129	53 - 140
2-Hexanone	200	278	*+	ug/L		139	65 - 137
Isopropy benzene	50.0	51.3		ug/L		103	70 - 130
Methylene bromide	50.0	49.5		ug/L		99	70 - 130
Methylene Chloride	50.0	44.0		ug/L		88	66 - 135
4-Methyl-2-pentanone (MIBK)	200	263		ug/L		131	69 - 138
Methyl tert-butyl ether	50.0	46.2		ug/L		92	66 - 130
m-Xylene & p-Xylene	50.0	51.3		ug/L		103	70 - 130
Naphthalene	50.0	45.4		ug/L		91	47 - 149
n-Butylbenzene	50.0	57.7		ug/L		115	67 - 130
N-Propylbenzene	50.0	48.2		ug/L		96	70 - 130
o-Chlorotoluene	50.0	50.1		ug/L		100	70 - 130
o-Xylene	50.0	51.2		ug/L		102	70 - 130
p-Chlorotoluene	50.0	49.7		ug/L		99	70 - 130
p-Isopropyltoluene	50.0	52.4		ug/L		105	65 - 130
sec-Butylbenzene	50.0	50.9		ug/L		102	66 - 130
Styrene	50.0	49.4		ug/L		99	70 - 130
tert-Butylbenzene	50.0	52.6		ug/L		105	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.5		ug/L		101	67 - 131
1,1,2,2-Tetrachloroethane	50.0	41.6		ug/L		83	70 - 131
Tetrachloroethene	50.0	60.8		ug/L		122	65 - 130
Toluene	50.0	47.0		ug/L		94	70 - 130
trans-1,2-Dichloroethene	50.0	43.5		ug/L		87	70 - 130
trans-1,3-Dichloropropene	50.0	47.0		ug/L		94	63 - 130
1,2,3-Trichlorobenzene	50.0	50.7		ug/L		101	60 - 138
1,2,4-Trichlorobenzene	50.0	50.4		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	52.6		ug/L		105	68 - 130
1,1,2-Trichloroethane	50.0	47.0		ug/L		94	70 - 130
Trichloroethene	50.0	46.9		ug/L		94	70 - 130
Trichlorofluoromethane	50.0	53.8		ug/L		108	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621435/1002
Matrix: Water
Analysis Batch: 621435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	45.2		ug/L		90	70 - 130
1,2,4-Trimethy benzene	50.0	50.2		ug/L		100	70 - 130
1,3,5-Trimethy benzene	50.0	49.9		ug/L		100	69 - 130
Vinyl acetate	100	96.5		ug/L		96	26 - 160
Vinyl chloride	50.0	42.3		ug/L		85	59 - 136
Xylenes, Total	100	102		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*72 - 119*
Dibromofluoromethane	*113*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: MB 400-621594/4
Matrix: Water
Analysis Batch: 621594

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.13	ug/L			04/20/23 11:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/20/23 11:28*	*1*
Dibromofluoromethane	*117*		*75 - 126*		*04/20/23 11:28*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*04/20/23 11:28*	*1*

Lab Sample ID: LCS 400-621594/1002
Matrix: Water
Analysis Batch: 621594

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	50.0	44.3		ug/L		89	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*72 - 119*
Dibromofluoromethane	*114*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-620225/1-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
Benzenethiol	ND		10	1.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
Benzoic acid	ND		30	7.3	ug/L		04/10/23 11:20	04/11/23 12:09	1
Benzyl alcohol	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 12:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-620225/1-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/10/23 11:20	04/11/23 12:09	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/10/23 11:20	04/11/23 12:09	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Chloroaniline	ND		10	3.4	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Chlorophenol	ND		10	2.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Dibenzofuran	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Diethyl phthalate	ND		10	0.24	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/10/23 11:20	04/11/23 12:09	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
1,4-Dioxane	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/10/23 11:20	04/11/23 12:09	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
Hexachloroethane	ND		10	4.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
Indene	ND		10	1.0	ug/L		04/10/23 11:20	04/11/23 12:09	1
Isophorone	ND		10	0.14	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Methylphenol	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Nitroaniline	ND		10	2.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
3-Nitroaniline	ND		10	1.8	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Nitroaniline	ND		10	1.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
Nitrobenzene	ND		10	0.13	ug/L		04/10/23 11:20	04/11/23 12:09	1
2-Nitrophenol	ND		10	5.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
4-Nitrophenol	ND		10	2.1	ug/L		04/10/23 11:20	04/11/23 12:09	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/10/23 11:20	04/11/23 12:09	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/10/23 11:20	04/11/23 12:09	1
Pentachlorophenol	ND		20	1.4	ug/L		04/10/23 11:20	04/11/23 12:09	1
Phenol	ND		10	2.6	ug/L		04/10/23 11:20	04/11/23 12:09	1
Pyridine	ND		10	3.2	ug/L		04/10/23 11:20	04/11/23 12:09	1
Quinoline	ND		10	4.5	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/10/23 11:20	04/11/23 12:09	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/10/23 11:20	04/11/23 12:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-620225/1-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620225

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		46 - 124	04/10/23 11:20	04/11/23 12:09	1
2-Fluorophenol	23		13 - 113	04/10/23 11:20	04/11/23 12:09	1
Nitrobenzene-d5	84		36 - 126	04/10/23 11:20	04/11/23 12:09	1
Phenol-d5	64		17 - 127	04/10/23 11:20	04/11/23 12:09	1
Terphenyl-d14	110		44 - 149	04/10/23 11:20	04/11/23 12:09	1
2,4,6-Tribromophenol	78		26 - 150	04/10/23 11:20	04/11/23 12:09	1

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	114		ug/L		95	21 - 120
Benzoic acid	554	370		ug/L		67	10 - 144
Benzyl alcohol	120	99.2		ug/L		83	28 - 120
Bis(2-chloroethoxy)methane	120	89.9		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	84.8		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	89.4		ug/L		75	33 - 121
Bis(2-ethylhexyl) phthalate	120	104		ug/L		86	52 - 147
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
Butyl benzyl phthalate	120	108		ug/L		90	54 - 133
4-Chloroaniline	120	96.0		ug/L		80	26 - 120
4-Chloro-3-methylphenol	120	108		ug/L		90	48 - 131
2-Chloronaphthalene	120	102		ug/L		85	52 - 121
2-Chlorophenol	120	90.4		ug/L		75	40 - 120
4-Chlorophenyl phenyl ether	120	110		ug/L		92	56 - 125
Dibenz[a,h]acridine	120	110		ug/L		92	31 - 150
Dibenzofuran	120	109		ug/L		91	56 - 122
3,3'-Dichlorobenzidine	160	220	*+	ug/L		138	36 - 132
2,4-Dichlorophenol	120	106		ug/L		88	49 - 120
Diethyl phthalate	120	109		ug/L		91	50 - 137
2,4-Dimethylphenol	120	82.9		ug/L		69	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	116		ug/L		97	58 - 126
4,6-Dinitro-ortho-cresol	240	200		ug/L		83	23 - 148
2,4-Dinitrophenol	240	229		ug/L		95	10 - 150
2,4-Dinitrotoluene	120	109		ug/L		91	54 - 142
2,6-Dinitrotoluene	120	105		ug/L		87	55 - 130
Di-n-octyl phthalate	120	103		ug/L		86	57 - 138
1,4-Dioxane	120	48.6		ug/L		41	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	100		ug/L		84	45 - 124
Hexachlorobenzene	120	112		ug/L		93	52 - 129
Hexachlorocyclopentadiene	120	65.1		ug/L		54	10 - 134
Hexachloroethane	120	96.1		ug/L		80	20 - 120
Indene	120	94.8		ug/L		79	49 - 120
Isophorone	120	91.6		ug/L		76	48 - 120
2-Methylphenol	120	104		ug/L		87	46 - 124
3 & 4 Methylphenol	120	105		ug/L		88	45 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2-Nitroaniline			120	102		ug/L		85	51 - 145		
3-Nitroaniline			120	96.7		ug/L		81	37 - 127		
4-Nitroaniline			120	119		ug/L		99	36 - 137		
Nitrobenzene			120	90.0		ug/L		75	45 - 120		
2-Nitrophenol			120	106		ug/L		89	40 - 124		
4-Nitrophenol			240	254		ug/L		106	23 - 146		
N-Nitrosodimethylamine			120	93.5		ug/L		78	29 - 137		
N-Nitrosodi-n-propylamine			120	106		ug/L		88	45 - 120		
N-Nitrosodiphenylamine			119	104		ug/L		87	54 - 120		
Pentachlorophenol			240	177		ug/L		74	31 - 130		
Phenol			120	90.6		ug/L		76	11 - 120		
Pyridine			240	149		ug/L		62	16 - 120		
Quinoline			120	114		ug/L		95	49 - 130		
2,4,5-Trichlorophenol			120	104		ug/L		87	51 - 136		
2,4,6-Trichlorophenol			120	100		ug/L		83	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*54*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*95*		*26 - 150*

Lab Sample ID: LCS 400-620225/5-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	6.13	J *-	ug/L		5	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*46 - 124*
2-Fluorophenol	*45*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*105*		*44 - 149*
2,4,6-Tribromophenol	*55*		*26 - 150*

Lab Sample ID: LCSD 400-620225/6-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620225

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	17.9	*1	ug/L		15	10 - 120	98	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-620225/6-A
Matrix: Water
Analysis Batch: 620356

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620225

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorophenol	42		13 - 113
Nitrobenzene-d5	84		36 - 126
Phenol-d5	73		17 - 127
Terphenyl-d14	108		44 - 149
2,4,6-Tribromophenol	75		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-620225/1-A
Matrix: Water
Analysis Batch: 620348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/10/23 11:20	04/11/23 16:41	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/10/23 11:20	04/11/23 16:41	1
Anthracene	ND		0.20	0.032	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/10/23 11:20	04/11/23 16:41	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/10/23 11:20	04/11/23 16:41	1
Chrysene	ND		0.20	0.074	ug/L		04/10/23 11:20	04/11/23 16:41	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/10/23 11:20	04/11/23 16:41	1
Fluoranthene	ND		0.20	0.068	ug/L		04/10/23 11:20	04/11/23 16:41	1
Fluorene	ND		0.20	0.11	ug/L		04/10/23 11:20	04/11/23 16:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/10/23 11:20	04/11/23 16:41	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/10/23 11:20	04/11/23 16:41	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/10/23 11:20	04/11/23 16:41	1
Phenanthrene	ND		0.20	0.036	ug/L		04/10/23 11:20	04/11/23 16:41	1
Pyrene	ND		0.20	0.040	ug/L		04/10/23 11:20	04/11/23 16:41	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	121		15 - 122	04/10/23 11:20	04/11/23 16:41	1
Nitrobenzene-d5	106		19 - 130	04/10/23 11:20	04/11/23 16:41	1
Terphenyl-d14	193	S1+	33 - 138	04/10/23 11:20	04/11/23 16:41	1

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	102		ug/L		85	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	122		ug/L		102	49 - 120
Benzo[a]anthracene	120	124		ug/L		103	61 - 135
Benzo[a]pyrene	120	118		ug/L		98	52 - 120
Benzo[b]fluoranthene	120	128		ug/L		107	53 - 134
Benzo[g,h,i]perylene	120	86.8		ug/L		72	47 - 133

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-620225/2-A
Matrix: Water
Analysis Batch: 620348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620225

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[k]fluoranthene			120	110		ug/L		91	57 - 134		
Chrysene			120	114		ug/L		95	55 - 122		
Dibenz(a,h)anthracene			120	99.5		ug/L		83	48 - 146		
Fluoranthene			120	121		ug/L		101	54 - 128		
Fluorene			120	125		ug/L		104	45 - 125		
Indeno[1,2,3-cd]pyrene			120	87.5		ug/L		73	43 - 142		
1-Methylnaphthalene			120	105		ug/L		87	41 - 120		
2-Methylnaphthalene			120	108		ug/L		90	32 - 124		
Phenanthrene			120	114		ug/L		95	48 - 120		
Pyrene			120	127		ug/L		106	48 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*15 - 122*
Nitrobenzene-d5	*77*		*19 - 130*
Terphenyl-d14	*114*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-620189/1-A
Matrix: Water
Analysis Batch: 620259

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/10/23 09:53	04/10/23 14:01	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/10/23 09:53	04/10/23 14:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*51 - 149*	*04/10/23 09:53*	*04/10/23 14:01*	*1*

Lab Sample ID: LCS 400-620189/2-A
Matrix: Water
Analysis Batch: 620259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620189

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.0818		ug/L		81	60 - 140		
1,2-D bromoethane			0.101	0.137		ug/L		136	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*134*		*51 - 149*

Lab Sample ID: LCSD 400-620189/3-A
Matrix: Water
Analysis Batch: 620259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620189

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.137	*1	ug/L		137	60 - 140	51	30
1,2-D bromoethane			0.101	0.133		ug/L		132	60 - 140	3	30

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-620189/3-A
Matrix: Water
Analysis Batch: 620259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620189

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	143		51 - 149

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG | ☐ PIPELINE | ☐ RETAIL
☐ CHEMICALS | ☐ CONSULTANT | ☐ LUBES
☐ TRANSPORTATION | ☑ OTHER _ENV. SERVICES

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/7/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
0.5°C IR#
5.5°C 4.6°C

Container PID Readings or Laboratory Notes:

400-235800 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-040723-8260	4/7/2023	0000	Water	2					2	X			
	TB-ROX-040723-8011	4/7/2023	0000	Water	2					2		X		
	MW4-ROX-040723-EB	4/7/2023	0835	Water	6			2		8	X	X	X	X
	MW4-ROX-040723	4/7/2023	0935	Water	6			2		8	X	X	X	X
	MW25-ROX-040723	4/7/2023	1045	Water	6			2		8	X	X	X	X
	MW7-ROX-040723	4/7/2023	1155	Water	6			2		8	X	X	X	X
	MW7-ROX-040723-DUP	4/7/2023	1155	Water	6			2		8	X	X	X	X
	MW12-ROX-040723	4/7/2023	1340	Water	6			2		8	X	X	X	X

4/7/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 9900, 5564 3932 9895, 5564 3932 9884	4/7/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4/8/23	8:30
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1599684, 1599685, 1599686, 1599687, 1599688, 1599689

CS#: 1599685

Page 55 of 57

4/24/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-235800-1

Login Number: 235800 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Whitley, Adrian

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5, 5.5, 4.6°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-235800-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-235857-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/29/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041023-8260	MW27-ROX-041023
TB-ROX-041023-8011	MW26-ROX-041023
MW9-ROX-041023	MW16-ROX-041023

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 several VOC and SVOC LCS/LCSD recoveries were outside evaluation criteria. Surrogate recoveries for PAHs terphenyl-d_{14} and 2-fluorobiphenyl were outside criteria in samples MW9-ROX-041023 and MW16-ROX-041023, respectively. Several VOC and SVOC MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in sample MW9-ROX-041023. The continuing calibration verification (CCV) for hexachlorocyclopentadiene, and initial calibration evaluation (ICV) for bromomethane, were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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
LCS 400-621549/1002	VOCs	2-Chloroethyl vinyl ether	**182**	NA	10-160
LCS 400-621549/1002	VOCs	cis-1,3-Dichloropropene	**142**	NA	69-132
LCS 400-621549/1002	VOCs	4-Methyl-2-pentanone (MIBK)	**143**	NA	69-138
LCS 400-620486/2-A	SVOCs	3,3'-Dichlorobenzidine	**134**	NA	36-132
LCS/LCSD 400-620486/5-A/6-A	SVOCs	Benzenethiol	**6/5**	6	10-120/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW9-ROX-041023	SVOCs	Benzenethiol	**UJ**
MW27-ROX-041023	SVOCs	Benzenethiol	**UJ**
MW26-ROX-041023	SVOCs	Benzenethiol	**UJ**
MW16-ROX-041023	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW9-ROX-041023	PAHs	Terphenyl-d_{14}	**147**	33-138
MW16-ROX-041023	PAHs	2-Fluorobiphenyl	**123**	15-122

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample MW9-ROX-041023 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW9-ROX-041023-MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW9-ROX-041023-MS/MSD	VOCs	Vinyl acetate	**164/168**	3	26-150/33
MW9-ROX-041023-MS/MSD	SVOCs	1,4-Dioxane	**36**/58	**45**	50-150/40
MW9-ROX-041023-MS/MSD	SVOCs	3,3'-Dichlorobenzidine	**134/141**	3	10-120/58

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW9-ROX-041023	SVOCs	1,4-Dioxane	**UJ**
MW9-ROX-041023	VOCs	2-Chloroethyl vinyl ether	**UJ**

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 continuing calibration verification (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW9-ROX-041023	VOCs	Bromomethane	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW27-ROX-041023	VOCs	Bromomethane	**UJ**
MW26-ROX-041023	VOCs	Bromomethane	**UJ**
MW16-ROX-041023	VOCs	Bromomethane	**UJ**
MW9-ROX-041023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW27-ROX-041023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW26-ROX-041023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW16-ROX-041023	SVOCs	Hexachlorocyclopentadiene	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 4/21/2023 11:16:02 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-235857-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
4/21/2023 11:16:02 AM

Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 27
Surrogate Summary 28
Method Summary 30
Chronicle 31
QC Association 35
QC Sample Results 37
Chain of Custody 54
Receipt Checklists 55
Certification Summary 56

Job ID: 400-235857-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-235857-1

Receipt
The samples were received on 4/11/2023 9:11 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.0°C, 1.0°C and 5.8°C

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-621549 recovered above the upper control limit for 1,2-Dichloropropane, 2-Chloroethyl vinyl ether and Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-621549 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-621549 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-621549 because the recoveries were below the reporting limit due to the acidic nature of the parent sample

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-621549 recovered outside control limits for the following analytes: 2-Chloroethyl vinyl ether, 4-Methyl-2-pentanone (MIBK) and cis-1,3-Dichloropropene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041023-8260 (400-235857-1), MW9-ROX-041023 (400-235857-3), MW27-ROX-041023 (400-235857-4), MW26-ROX-041023 (400-235857-5) and MW16-ROX-041023 (400-235857-6). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-613356 was outside method criteria for the following analyte(s): Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-620486 and analytical batch 400-620716 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-620486 and analytical batch 400-620716 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-620486 and analytical batch 400-620716 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8270D: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-620486

Job ID: 400-235857-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

and analytical batch 400-620716 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-620716 recovered above the upper control limit for Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-620716 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D_LL: The continuing calibration verification (CCV) associated with batch 400-620771 recovered above the upper control limit for Dibenz(a,h)anthracene and Indeno[1,2,3-cd]pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D_LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW9-ROX-041023 (400-235857-3) and MW16-ROX-041023 (400-235857-6). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-621332 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-235857-1	TB-ROX-041023-8260	Water	04/10/23 12:00	04/11/23 09:11
400-235857-2	TB-ROX-041023-8011	Water	04/10/23 12:00	04/11/23 09:11
400-235857-3	MW9-ROX-041023	Water	04/10/23 09:05	04/11/23 09:11
400-235857-4	MW27-ROX-041023	Water	04/10/23 10:40	04/11/23 09:11
400-235857-5	MW26-ROX-041023	Water	04/10/23 12:20	04/11/23 09:11
400-235857-6	MW16-ROX-041023	Water	04/10/23 13:25	04/11/23 09:11

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: TB-ROX-041023-8260 — Lab Sample ID: 400-235857-1

No Detections.

Client Sample ID: TB-ROX-041023-8011 — Lab Sample ID: 400-235857-2

No Detections.

Client Sample ID: MW9-ROX-041023 — Lab Sample ID: 400-235857-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.71	J	1.0	0.13	ug/L	1		8260B	Total/NA
Butyl benzyl phthalate	2.2	J	9.7	0.19	ug/L	1		8270D	Total/NA

Client Sample ID: MW27-ROX-041023 — Lab Sample ID: 400-235857-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.60	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.31	J	9.8	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: MW26-ROX-041023 — Lab Sample ID: 400-235857-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.27	J	1.0	0.13	ug/L	1		8260B	Total/NA

Client Sample ID: MW16-ROX-041023 — Lab Sample ID: 400-235857-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.23	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.43	J	9.8	0.24	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: TB-ROX-041023-8260
Date Collected: 04/10/23 12:00
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/23 20:07	1
Acrolein	ND		20	3.3	ug/L			04/19/23 20:07	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 20:07	1
Benzene	ND		1.0	0.13	ug/L			04/19/23 20:07	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 20:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 20:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 20:07	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 20:07	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 20:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 20:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 20:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 20:07	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 20:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 20:07	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 20:07	1
2-Chloroethyl vinyl ether	ND	*+	5.0	2.0	ug/L			04/19/23 20:07	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 20:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/23 20:07	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 20:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 20:07	1
cis-1,3-Dichloropropene	ND	*+	5.0	0.50	ug/L			04/19/23 20:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 20:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 20:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 20:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 20:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 20:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 20:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 20:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 20:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 20:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 20:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 20:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 20:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 20:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 20:07	1
2-Hexanone	ND		25	1.4	ug/L			04/19/23 20:07	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 20:07	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 20:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 20:07	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			04/19/23 20:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 20:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 20:07	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 20:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 20:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 20:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 20:07	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 20:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 20:07	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 20:07	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: TB-ROX-041023-8260
Date Collected: 04/10/23 12:00
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 20:07	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 20:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 20:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 20:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 20:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 20:07	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 20:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 20:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 20:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 20:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 20:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 20:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 20:07	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 20:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 20:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 20:07	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 20:07	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 20:07	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 20:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 20:07	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 20:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/19/23 20:07*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/19/23 20:07*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/19/23 20:07*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: TB-ROX-041023-8011
Date Collected: 04/10/23 12:00
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		04/18/23 10:32	04/18/23 15:50	1
1,2-D bromoethane	ND		0.021	0.015	ug/L		04/18/23 10:32	04/18/23 15:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*51 - 149*	*04/18/23 10:32*	*04/18/23 15:50*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW9-ROX-041023
Date Collected: 04/10/23 09:05
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/23 18:36	1
Acrolein	ND		20	3.3	ug/L			04/19/23 18:36	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 18:36	1
Benzene	**0.71**	**J**	1.0	0.13	ug/L			04/19/23 18:36	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 18:36	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 18:36	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 18:36	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 18:36	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/19/23 18:36	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 18:36	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 18:36	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 18:36	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 18:36	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 18:36	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 18:36	1
2-Chloroethyl vinyl ether	ND	F1 *+ UJ	5.0	2.0	ug/L			04/19/23 18:36	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 18:36	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/23 18:36	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 18:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 18:36	1
cis-1,3-Dichloropropene	ND	*+	5.0	0.50	ug/L			04/19/23 18:36	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 18:36	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 18:36	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 18:36	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 18:36	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 18:36	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 18:36	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 18:36	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 18:36	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 18:36	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 18:36	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 18:36	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 18:36	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 18:36	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 18:36	1
2-Hexanone	ND		25	1.4	ug/L			04/19/23 18:36	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 18:36	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 18:36	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 18:36	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			04/19/23 18:36	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 18:36	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 18:36	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 18:36	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 18:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 18:36	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 18:36	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 18:36	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 18:36	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 18:36	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW9-ROX-041023

Date Collected: 04/10/23 09:05
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 18:36	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 18:36	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 18:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 18:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 18:36	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 18:36	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 18:36	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 18:36	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 18:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 18:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 18:36	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 18:36	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 18:36	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 18:36	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 18:36	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 18:36	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 18:36	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 18:36	1
Vinyl acetate	ND	F1	25	0.93	ug/L			04/19/23 18:36	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 18:36	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/19/23 18:36*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/19/23 18:36*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/19/23 18:36*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/12/23 08:58	04/13/23 21:14	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/12/23 08:58	04/13/23 21:14	1
Anthracene	ND		0.19	0.031	ug/L		04/12/23 08:58	04/13/23 21:14	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/12/23 08:58	04/13/23 21:14	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/12/23 08:58	04/13/23 21:14	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/12/23 08:58	04/13/23 21:14	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/12/23 08:58	04/13/23 21:14	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/12/23 08:58	04/13/23 21:14	1
Chrysene	ND		0.19	0.072	ug/L		04/12/23 08:58	04/13/23 21:14	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/12/23 08:58	04/13/23 21:14	1
Fluoranthene	ND		0.19	0.066	ug/L		04/12/23 08:58	04/13/23 21:14	1
Fluorene	ND		0.19	0.11	ug/L		04/12/23 08:58	04/13/23 21:14	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/12/23 08:58	04/13/23 21:14	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/12/23 08:58	04/13/23 21:14	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/12/23 08:58	04/13/23 21:14	1
Phenanthrene	ND		0.19	0.035	ug/L		04/12/23 08:58	04/13/23 21:14	1
Pyrene	ND		0.19	0.039	ug/L		04/12/23 08:58	04/13/23 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*118*		*15 - 122*	*04/12/23 08:58*	*04/13/23 21:14*	*1*
Nitrobenzene-d5	*109*		*19 - 130*	*04/12/23 08:58*	*04/13/23 21:14*	*1*

Client Sample ID: MW9-ROX-041023

Date Collected: 04/10/23 09:05
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-3

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*147*	*S1+*	*33 - 138*	*04/12/23 08:58*	*04/13/23 21:14*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/12/23 08:58	04/13/23 18:26	1
Benzenethiol	ND	*- UJ	9.7	1.7	ug/L		04/12/23 08:58	04/13/23 18:26	1
Benzoic acid	ND		29	7.1	ug/L		04/12/23 08:58	04/13/23 18:26	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/12/23 08:58	04/13/23 18:26	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/12/23 08:58	04/13/23 18:26	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/12/23 08:58	04/13/23 18:26	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/12/23 08:58	04/13/23 18:26	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/12/23 08:58	04/13/23 18:26	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/12/23 08:58	04/13/23 18:26	1
Butyl benzyl phthalate	**2.2**	**J**	9.7	0.19	ug/L		04/12/23 08:58	04/13/23 18:26	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/12/23 08:58	04/13/23 18:26	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/12/23 08:58	04/13/23 18:26	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/12/23 08:58	04/13/23 18:26	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/12/23 08:58	04/13/23 18:26	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/12/23 08:58	04/13/23 18:26	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/12/23 08:58	04/13/23 18:26	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/12/23 08:58	04/13/23 18:26	1
3,3'-Dichlorobenzidine	ND	*+ F1	9.7	2.5	ug/L		04/12/23 08:58	04/13/23 18:26	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/12/23 08:58	04/13/23 18:26	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/12/23 08:58	04/13/23 18:26	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/12/23 08:58	04/13/23 18:26	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/12/23 08:58	04/13/23 18:26	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/12/23 08:58	04/13/23 18:26	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/12/23 08:58	04/13/23 18:26	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/12/23 08:58	04/13/23 18:26	1
2,4-Dinitrotoluene	ND		9.7	1.9	ug/L		04/12/23 08:58	04/13/23 18:26	1
2,6-Dinitrotoluene	ND		9.7	1.9	ug/L		04/12/23 08:58	04/13/23 18:26	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/12/23 08:58	04/13/23 18:26	1
1,4-Dioxane	ND	F1 F2 UJ	9.7	0.97	ug/L		04/12/23 08:58	04/13/23 18:26	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/12/23 08:58	04/13/23 18:26	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/12/23 08:58	04/13/23 18:26	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/12/23 08:58	04/13/23 18:26	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/12/23 08:58	04/13/23 18:26	1
Indene	ND		9.7	0.97	ug/L		04/12/23 08:58	04/13/23 18:26	1
Isophorone	ND		9.7	0.14	ug/L		04/12/23 08:58	04/13/23 18:26	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/12/23 08:58	04/13/23 18:26	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/12/23 08:58	04/13/23 18:26	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/12/23 08:58	04/13/23 18:26	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/12/23 08:58	04/13/23 18:26	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/12/23 08:58	04/13/23 18:26	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/12/23 08:58	04/13/23 18:26	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/12/23 08:58	04/13/23 18:26	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/12/23 08:58	04/13/23 18:26	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/12/23 08:58	04/13/23 18:26	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW9-ROX-041023

Date Collected: 04/10/23 09:05
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/12/23 08:58	04/13/23 18:26	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/12/23 08:58	04/13/23 18:26	1
Pentachlorophenol	ND		19	1.4	ug/L		04/12/23 08:58	04/13/23 18:26	1
Phenol	ND		9.7	2.5	ug/L		04/12/23 08:58	04/13/23 18:26	1
Pyridine	ND		9.7	3.1	ug/L		04/12/23 08:58	04/13/23 18:26	1
Quinoline	ND		9.7	4.4	ug/L		04/12/23 08:58	04/13/23 18:26	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/12/23 08:58	04/13/23 18:26	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/12/23 08:58	04/13/23 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*46 - 124*	*04/12/23 08:58*	*04/13/23 18:26*	*1*
2-Fluorophenol	*35*		*13 - 113*	*04/12/23 08:58*	*04/13/23 18:26*	*1*
Nitrobenzene-d5	*85*		*36 - 126*	*04/12/23 08:58*	*04/13/23 18:26*	*1*
Phenol-d5	*69*		*17 - 127*	*04/12/23 08:58*	*04/13/23 18:26*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/12/23 08:58*	*04/13/23 18:26*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*04/12/23 08:58*	*04/13/23 18:26*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.017	ug/L		04/18/23 10:32	04/18/23 16:11	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/18/23 10:32	04/18/23 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*04/18/23 10:32*	*04/18/23 16:11*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW27-ROX-041023
Date Collected: 04/10/23 10:40
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/23 21:38	1
Acrolein	ND		20	3.3	ug/L			04/19/23 21:38	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 21:38	1
Benzene	**0.60**	**J**	1.0	0.13	ug/L			04/19/23 21:38	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 21:38	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 21:38	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 21:38	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 21:38	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/19/23 21:38	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 21:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 21:38	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 21:38	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 21:38	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 21:38	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 21:38	1
2-Chloroethyl vinyl ether	ND	*+	5.0	2.0	ug/L			04/19/23 21:38	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 21:38	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/23 21:38	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 21:38	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 21:38	1
cis-1,3-Dichloropropene	ND	*+	5.0	0.50	ug/L			04/19/23 21:38	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 21:38	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 21:38	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 21:38	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 21:38	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 21:38	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 21:38	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 21:38	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:38	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:38	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 21:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 21:38	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 21:38	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 21:38	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 21:38	1
2-Hexanone	ND		25	1.4	ug/L			04/19/23 21:38	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 21:38	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 21:38	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 21:38	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			04/19/23 21:38	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 21:38	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 21:38	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 21:38	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 21:38	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 21:38	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 21:38	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 21:38	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 21:38	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 21:38	1

Client Sample ID: MW27-ROX-041023
Date Collected: 04/10/23 10:40
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 21:38	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 21:38	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 21:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 21:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 21:38	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 21:38	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 21:38	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 21:38	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 21:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 21:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 21:38	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 21:38	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 21:38	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 21:38	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 21:38	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 21:38	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 21:38	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 21:38	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 21:38	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 21:38	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 21:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*04/19/23 21:38*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/19/23 21:38*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/19/23 21:38*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/12/23 08:58	04/13/23 21:31	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/12/23 08:58	04/13/23 21:31	1
Anthracene	ND		0.20	0.031	ug/L		04/12/23 08:58	04/13/23 21:31	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/12/23 08:58	04/13/23 21:31	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/12/23 08:58	04/13/23 21:31	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/12/23 08:58	04/13/23 21:31	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/12/23 08:58	04/13/23 21:31	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/12/23 08:58	04/13/23 21:31	1
Chrysene	ND		0.20	0.072	ug/L		04/12/23 08:58	04/13/23 21:31	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/12/23 08:58	04/13/23 21:31	1
Fluoranthene	ND		0.20	0.067	ug/L		04/12/23 08:58	04/13/23 21:31	1
Fluorene	ND		0.20	0.11	ug/L		04/12/23 08:58	04/13/23 21:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/12/23 08:58	04/13/23 21:31	1
1-Methylnaphthalene	ND		0.20	0.072	ug/L		04/12/23 08:58	04/13/23 21:31	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/12/23 08:58	04/13/23 21:31	1
Phenanthrene	ND		0.20	0.035	ug/L		04/12/23 08:58	04/13/23 21:31	1
Pyrene	ND		0.20	0.039	ug/L		04/12/23 08:58	04/13/23 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*114*		*15 - 122*	*04/12/23 08:58*	*04/13/23 21:31*	*1*
Nitrobenzene-d5	*103*		*19 - 130*	*04/12/23 08:58*	*04/13/23 21:31*	*1*

Client Sample ID: MW27-ROX-041023
Date Collected: 04/10/23 10:40
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	132		33 - 138	04/12/23 08:58	04/13/23 21:31	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/12/23 08:58	04/13/23 18:48	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/12/23 08:58	04/13/23 18:48	1
Benzoic acid	ND		29	7.1	ug/L		04/12/23 08:58	04/13/23 18:48	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/12/23 08:58	04/13/23 18:48	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/12/23 08:58	04/13/23 18:48	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/12/23 08:58	04/13/23 18:48	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/12/23 08:58	04/13/23 18:48	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/12/23 08:58	04/13/23 18:48	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/12/23 08:58	04/13/23 18:48	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/12/23 08:58	04/13/23 18:48	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/12/23 08:58	04/13/23 18:48	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/12/23 08:58	04/13/23 18:48	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/12/23 08:58	04/13/23 18:48	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/12/23 08:58	04/13/23 18:48	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/12/23 08:58	04/13/23 18:48	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 18:48	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 18:48	1
3,3'-Dichlorobenzidine	ND	*+	9.8	2.5	ug/L		04/12/23 08:58	04/13/23 18:48	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/12/23 08:58	04/13/23 18:48	1
Diethyl phthalate	**0.31**	**J**	9.8	0.23	ug/L		04/12/23 08:58	04/13/23 18:48	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/12/23 08:58	04/13/23 18:48	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 18:48	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/12/23 08:58	04/13/23 18:48	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/12/23 08:58	04/13/23 18:48	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/12/23 08:58	04/13/23 18:48	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/12/23 08:58	04/13/23 18:48	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/12/23 08:58	04/13/23 18:48	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 18:48	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 18:48	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 18:48	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 18:48	1
Hexachlorocyclopentadiene	ND	UJ	20	2.5	ug/L		04/12/23 08:58	04/13/23 18:48	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/12/23 08:58	04/13/23 18:48	1
Indene	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 18:48	1
Isophorone	ND		9.8	0.14	ug/L		04/12/23 08:58	04/13/23 18:48	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/12/23 08:58	04/13/23 18:48	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/12/23 08:58	04/13/23 18:48	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/12/23 08:58	04/13/23 18:48	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/12/23 08:58	04/13/23 18:48	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/12/23 08:58	04/13/23 18:48	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/12/23 08:58	04/13/23 18:48	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/12/23 08:58	04/13/23 18:48	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/12/23 08:58	04/13/23 18:48	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/12/23 08:58	04/13/23 18:48	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW27-ROX-041023
Date Collected: 04/10/23 10:40
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/12/23 08:58	04/13/23 18:48	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/12/23 08:58	04/13/23 18:48	1
Pentachlorophenol	ND		20	1.4	ug/L		04/12/23 08:58	04/13/23 18:48	1
Phenol	ND		9.8	2.5	ug/L		04/12/23 08:58	04/13/23 18:48	1
Pyridine	ND		9.8	3.1	ug/L		04/12/23 08:58	04/13/23 18:48	1
Quinoline	ND		9.8	4.4	ug/L		04/12/23 08:58	04/13/23 18:48	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/12/23 08:58	04/13/23 18:48	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/12/23 08:58	04/13/23 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*46 - 124*	*04/12/23 08:58*	*04/13/23 18:48*	*1*
2-Fluorophenol	*20*		*13 - 113*	*04/12/23 08:58*	*04/13/23 18:48*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*04/12/23 08:58*	*04/13/23 18:48*	*1*
Phenol-d5	*48*		*17 - 127*	*04/12/23 08:58*	*04/13/23 18:48*	*1*
Terphenyl-d14	*97*		*44 - 149*	*04/12/23 08:58*	*04/13/23 18:48*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*04/12/23 08:58*	*04/13/23 18:48*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/18/23 10:32	04/18/23 17:33	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/18/23 10:32	04/18/23 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*51 - 149*	*04/18/23 10:32*	*04/18/23 17:33*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW26-ROX-041023
Date Collected: 04/10/23 12:20
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/23 22:01	1
Acrolein	ND		20	3.3	ug/L			04/19/23 22:01	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 22:01	1
Benzene	**0.27**	**J**	1.0	0.13	ug/L			04/19/23 22:01	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 22:01	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 22:01	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 22:01	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 22:01	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/19/23 22:01	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 22:01	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 22:01	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 22:01	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 22:01	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 22:01	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 22:01	1
2-Chloroethyl vinyl ether	ND	*+	5.0	2.0	ug/L			04/19/23 22:01	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 22:01	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/23 22:01	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 22:01	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 22:01	1
cis-1,3-Dichloropropene	ND	*+	5.0	0.50	ug/L			04/19/23 22:01	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 22:01	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 22:01	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 22:01	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 22:01	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 22:01	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 22:01	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:01	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:01	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:01	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:01	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 22:01	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 22:01	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 22:01	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 22:01	1
2-Hexanone	ND		25	1.4	ug/L			04/19/23 22:01	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 22:01	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 22:01	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 22:01	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			04/19/23 22:01	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 22:01	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 22:01	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 22:01	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 22:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 22:01	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 22:01	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 22:01	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 22:01	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 22:01	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW26-ROX-041023
Date Collected: 04/10/23 12:20
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 22:01	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 22:01	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 22:01	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 22:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 22:01	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 22:01	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 22:01	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:01	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 22:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 22:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 22:01	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 22:01	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 22:01	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 22:01	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 22:01	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 22:01	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 22:01	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 22:01	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 22:01	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 22:01	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/19/23 22:01*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/19/23 22:01*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/19/23 22:01*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/12/23 08:58	04/13/23 21:48	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/12/23 08:58	04/13/23 21:48	1
Anthracene	ND		0.19	0.031	ug/L		04/12/23 08:58	04/13/23 21:48	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/12/23 08:58	04/13/23 21:48	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/12/23 08:58	04/13/23 21:48	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/12/23 08:58	04/13/23 21:48	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/12/23 08:58	04/13/23 21:48	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/12/23 08:58	04/13/23 21:48	1
Chrysene	ND		0.19	0.071	ug/L		04/12/23 08:58	04/13/23 21:48	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/12/23 08:58	04/13/23 21:48	1
Fluoranthene	ND		0.19	0.066	ug/L		04/12/23 08:58	04/13/23 21:48	1
Fluorene	ND		0.19	0.11	ug/L		04/12/23 08:58	04/13/23 21:48	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/12/23 08:58	04/13/23 21:48	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/12/23 08:58	04/13/23 21:48	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/12/23 08:58	04/13/23 21:48	1
Phenanthrene	ND		0.19	0.035	ug/L		04/12/23 08:58	04/13/23 21:48	1
Pyrene	ND		0.19	0.039	ug/L		04/12/23 08:58	04/13/23 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*111*		*15 - 122*	*04/12/23 08:58*	*04/13/23 21:48*	*1*
Nitrobenzene-d5	*101*		*19 - 130*	*04/12/23 08:58*	*04/13/23 21:48*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW26-ROX-041023
Date Collected: 04/10/23 12:20
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	121		33 - 138	04/12/23 08:58	04/13/23 21:48	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/12/23 08:58	04/13/23 19:10	1
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/12/23 08:58	04/13/23 19:10	1
Benzoic acid	ND		29	7.0	ug/L		04/12/23 08:58	04/13/23 19:10	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/12/23 08:58	04/13/23 19:10	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		04/12/23 08:58	04/13/23 19:10	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/12/23 08:58	04/13/23 19:10	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		04/12/23 08:58	04/13/23 19:10	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/12/23 08:58	04/13/23 19:10	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/12/23 08:58	04/13/23 19:10	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/12/23 08:58	04/13/23 19:10	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/12/23 08:58	04/13/23 19:10	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/12/23 08:58	04/13/23 19:10	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/12/23 08:58	04/13/23 19:10	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/12/23 08:58	04/13/23 19:10	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/12/23 08:58	04/13/23 19:10	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/12/23 08:58	04/13/23 19:10	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/12/23 08:58	04/13/23 19:10	1
3,3'-Dichlorobenzidine	ND	*+	9.7	2.5	ug/L		04/12/23 08:58	04/13/23 19:10	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/12/23 08:58	04/13/23 19:10	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/12/23 08:58	04/13/23 19:10	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/12/23 08:58	04/13/23 19:10	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/12/23 08:58	04/13/23 19:10	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/12/23 08:58	04/13/23 19:10	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		04/12/23 08:58	04/13/23 19:10	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/12/23 08:58	04/13/23 19:10	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/12/23 08:58	04/13/23 19:10	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/12/23 08:58	04/13/23 19:10	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/12/23 08:58	04/13/23 19:10	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/12/23 08:58	04/13/23 19:10	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/12/23 08:58	04/13/23 19:10	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/12/23 08:58	04/13/23 19:10	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/12/23 08:58	04/13/23 19:10	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/12/23 08:58	04/13/23 19:10	1
Indene	ND		9.7	0.97	ug/L		04/12/23 08:58	04/13/23 19:10	1
Isophorone	ND		9.7	0.14	ug/L		04/12/23 08:58	04/13/23 19:10	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/12/23 08:58	04/13/23 19:10	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/12/23 08:58	04/13/23 19:10	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/12/23 08:58	04/13/23 19:10	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/12/23 08:58	04/13/23 19:10	1
4-Nitroaniline	ND		9.7	1.4	ug/L		04/12/23 08:58	04/13/23 19:10	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/12/23 08:58	04/13/23 19:10	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/12/23 08:58	04/13/23 19:10	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/12/23 08:58	04/13/23 19:10	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/12/23 08:58	04/13/23 19:10	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW26-ROX-041023

Lab Sample ID: 400-235857-5

Date Collected: 04/10/23 12:20

Matrix: Water

Date Received: 04/11/23 09:11

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/12/23 08:58	04/13/23 19:10	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/12/23 08:58	04/13/23 19:10	1
Pentachlorophenol	ND		19	1.4	ug/L		04/12/23 08:58	04/13/23 19:10	1
Phenol	ND		9.7	2.5	ug/L		04/12/23 08:58	04/13/23 19:10	1
Pyridine	ND		9.7	3.1	ug/L		04/12/23 08:58	04/13/23 19:10	1
Quinoline	ND		9.7	4.3	ug/L		04/12/23 08:58	04/13/23 19:10	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/12/23 08:58	04/13/23 19:10	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/12/23 08:58	04/13/23 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*04/12/23 08:58*	*04/13/23 19:10*	*1*
2-Fluorophenol	*15*		*13 - 113*	*04/12/23 08:58*	*04/13/23 19:10*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*04/12/23 08:58*	*04/13/23 19:10*	*1*
Phenol-d5	*39*		*17 - 127*	*04/12/23 08:58*	*04/13/23 19:10*	*1*
Terphenyl-d14	*88*		*44 - 149*	*04/12/23 08:58*	*04/13/23 19:10*	*1*
2,4,6-Tribromophenol	*41*		*26 - 150*	*04/12/23 08:58*	*04/13/23 19:10*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/18/23 10:32	04/18/23 17:53	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/18/23 10:32	04/18/23 17:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*04/18/23 10:32*	*04/18/23 17:53*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW16-ROX-041023
Date Collected: 04/10/23 13:25
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/23 22:24	1
Acrolein	ND		20	3.3	ug/L			04/19/23 22:24	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 22:24	1
Benzene	**0.23**	**J**	1.0	0.13	ug/L			04/19/23 22:24	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 22:24	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 22:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 22:24	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 22:24	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/19/23 22:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 22:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 22:24	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 22:24	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 22:24	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 22:24	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 22:24	1
2-Chloroethyl vinyl ether	ND	*+	5.0	2.0	ug/L			04/19/23 22:24	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 22:24	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/23 22:24	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 22:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 22:24	1
cis-1,3-Dichloropropene	ND	*+	5.0	0.50	ug/L			04/19/23 22:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 22:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 22:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 22:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 22:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 22:24	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 22:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 22:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 22:24	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 22:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 22:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 22:24	1
2-Hexanone	ND		25	1.4	ug/L			04/19/23 22:24	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 22:24	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 22:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 22:24	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			04/19/23 22:24	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 22:24	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 22:24	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 22:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 22:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 22:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 22:24	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 22:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 22:24	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 22:24	1

Client Sample ID: MW16-ROX-041023
Date Collected: 04/10/23 13:25
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 22:24	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 22:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 22:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 22:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 22:24	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 22:24	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 22:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 22:24	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 22:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 22:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 22:24	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 22:24	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 22:24	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 22:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 22:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 22:24	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 22:24	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 22:24	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 22:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 22:24	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/19/23 22:24*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*04/19/23 22:24*	*1*
Toluene-d8 (Surr)	*88*		*64 - 132*		*04/19/23 22:24*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/12/23 08:58	04/13/23 22:05	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/12/23 08:58	04/13/23 22:05	1
Anthracene	ND		0.20	0.031	ug/L		04/12/23 08:58	04/13/23 22:05	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/12/23 08:58	04/13/23 22:05	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/12/23 08:58	04/13/23 22:05	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/12/23 08:58	04/13/23 22:05	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/12/23 08:58	04/13/23 22:05	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/12/23 08:58	04/13/23 22:05	1
Chrysene	ND		0.20	0.073	ug/L		04/12/23 08:58	04/13/23 22:05	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/12/23 08:58	04/13/23 22:05	1
Fluoranthene	ND		0.20	0.067	ug/L		04/12/23 08:58	04/13/23 22:05	1
Fluorene	ND		0.20	0.11	ug/L		04/12/23 08:58	04/13/23 22:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/12/23 08:58	04/13/23 22:05	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/12/23 08:58	04/13/23 22:05	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/12/23 08:58	04/13/23 22:05	1
Phenanthrene	ND		0.20	0.035	ug/L		04/12/23 08:58	04/13/23 22:05	1
Pyrene	ND		0.20	0.039	ug/L		04/12/23 08:58	04/13/23 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*123*	*S1+*	*15 - 122*	*04/12/23 08:58*	*04/13/23 22:05*	*1*
Nitrobenzene-d5	*110*		*19 - 130*	*04/12/23 08:58*	*04/13/23 22:05*	*1*

Client Sample ID: MW16-ROX-041023
Date Collected: 04/10/23 13:25
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	103		33 - 138	04/12/23 08:58	04/13/23 22:05	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/12/23 08:58	04/13/23 19:32	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/12/23 08:58	04/13/23 19:32	1
Benzoic acid	ND		29	7.2	ug/L		04/12/23 08:58	04/13/23 19:32	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/12/23 08:58	04/13/23 19:32	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/12/23 08:58	04/13/23 19:32	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		04/12/23 08:58	04/13/23 19:32	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/12/23 08:58	04/13/23 19:32	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/12/23 08:58	04/13/23 19:32	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/12/23 08:58	04/13/23 19:32	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/12/23 08:58	04/13/23 19:32	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/12/23 08:58	04/13/23 19:32	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/12/23 08:58	04/13/23 19:32	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/12/23 08:58	04/13/23 19:32	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/12/23 08:58	04/13/23 19:32	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/12/23 08:58	04/13/23 19:32	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 19:32	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 19:32	1
3,3'-Dichlorobenzidine	ND	*+	9.8	2.6	ug/L		04/12/23 08:58	04/13/23 19:32	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/12/23 08:58	04/13/23 19:32	1
Diethyl phthalate	**0.43**	**J**	9.8	0.24	ug/L		04/12/23 08:58	04/13/23 19:32	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/12/23 08:58	04/13/23 19:32	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 19:32	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		04/12/23 08:58	04/13/23 19:32	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/12/23 08:58	04/13/23 19:32	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/12/23 08:58	04/13/23 19:32	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/12/23 08:58	04/13/23 19:32	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/12/23 08:58	04/13/23 19:32	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 19:32	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 19:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 19:32	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/12/23 08:58	04/13/23 19:32	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/12/23 08:58	04/13/23 19:32	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/12/23 08:58	04/13/23 19:32	1
Indene	ND		9.8	0.98	ug/L		04/12/23 08:58	04/13/23 19:32	1
Isophorone	ND		9.8	0.14	ug/L		04/12/23 08:58	04/13/23 19:32	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/12/23 08:58	04/13/23 19:32	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/12/23 08:58	04/13/23 19:32	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/12/23 08:58	04/13/23 19:32	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/12/23 08:58	04/13/23 19:32	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/12/23 08:58	04/13/23 19:32	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/12/23 08:58	04/13/23 19:32	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/12/23 08:58	04/13/23 19:32	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/12/23 08:58	04/13/23 19:32	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/12/23 08:58	04/13/23 19:32	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW16-ROX-041023

Date Collected: 04/10/23 13:25
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-6

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/12/23 08:58	04/13/23 19:32	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/12/23 08:58	04/13/23 19:32	1
Pentachlorophenol	ND		20	1.4	ug/L		04/12/23 08:58	04/13/23 19:32	1
Phenol	ND		9.8	2.6	ug/L		04/12/23 08:58	04/13/23 19:32	1
Pyridine	ND		9.8	3.1	ug/L		04/12/23 08:58	04/13/23 19:32	1
Quinoline	ND		9.8	4.4	ug/L		04/12/23 08:58	04/13/23 19:32	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/12/23 08:58	04/13/23 19:32	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/12/23 08:58	04/13/23 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*04/12/23 08:58*	*04/13/23 19:32*	*1*
2-Fluorophenol	*50*		*13 - 113*	*04/12/23 08:58*	*04/13/23 19:32*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/12/23 08:58*	*04/13/23 19:32*	*1*
Phenol-d5	*73*		*17 - 127*	*04/12/23 08:58*	*04/13/23 19:32*	*1*
Terphenyl-d14	*68*		*44 - 149*	*04/12/23 08:58*	*04/13/23 19:32*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*04/12/23 08:58*	*04/13/23 19:32*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/18/23 10:32	04/18/23 18:14	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/18/23 10:32	04/18/23 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*04/18/23 10:32*	*04/18/23 18:14*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-235857-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-235857-1	TB-ROX-041023-8260	107	104	90
400-235857-3	MW9-ROX-041023	104	104	90
400-235857-3 MS	MW9-ROX-041023	110	101	90
400-235857-3 MSD	MW9-ROX-041023	110	99	89
400-235857-4	MW27-ROX-041023	106	102	90
400-235857-5	MW26-ROX-041023	105	103	90
400-235857-6	MW16-ROX-041023	107	105	88
LCS 400-621549/1002	Lab Control Sample	110	96	89
MB 400-621549/4	Method Blank	105	103	90

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-235857-3	MW9-ROX-041023	91	35	85	69	100	79
400-235857-3 MS	MW9-ROX-041023	84	30	79	67	91	94
400-235857-3 MSD	MW9-ROX-041023	86	38	90	73	98	93
400-235857-4	MW27-ROX-041023	86	20	82	48	97	67
400-235857-5	MW26-ROX-041023	85	15	80	39	88	41
400-235857-6	MW16-ROX-041023	82	50	78	73	68	71
LCS 400-620486/2-A	Lab Control Sample	83	30	82	60	93	86
LCS 400-620486/5-A	Lab Control Sample	90	43	85	76	103	65
LCSD 400-620486/6-A	Lab Control Sample Dup	86	43	81	71	96	65
MB 400-620486/1-A	Method Blank	84	16	78	56	90	70

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-235857-3	MW9-ROX-041023	118	109	147 S1+
400-235857-3 MS	MW9-ROX-041023	82	64	88
400-235857-3 MSD	MW9-ROX-041023	81	60	91
400-235857-4	MW27-ROX-041023	114	103	132
400-235857-5	MW26-ROX-041023	111	101	121

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-235857-6	MW16-ROX-041023	123 S1+	110	103
LCS 400-620486/2-A	Lab Control Sample	78	79	88
MB 400-620486/1-A	Method Blank	110	94	133

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-235857-2	TB-ROX-041023-8011	91
400-235857-3	MW9-ROX-041023	90
400-235857-3 MS	MW9-ROX-041023	97
400-235857-3 MSD	MW9-ROX-041023	98
400-235857-4	MW27-ROX-041023	91
400-235857-5	MW26-ROX-041023	94
400-235857-6	MW16-ROX-041023	99
LCS 400-621296/2-A	Lab Control Sample	88
LCSD 400-621296/3-A	Lab Control Sample Dup	100
MB 400-621296/1-A	Method Blank	80

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: TB-ROX-041023-8260
Lab Sample ID: 400-235857-1
Date Collected: 04/10/23 12:00
Matrix: Water
Date Received: 04/11/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 20:07	BPO	EET PEN

Client Sample ID: TB-ROX-041023-8011
Lab Sample ID: 400-235857-2
Date Collected: 04/10/23 12:00
Matrix: Water
Date Received: 04/11/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 15:50	PG	EET PEN

Client Sample ID: MW9-ROX-041023
Lab Sample ID: 400-235857-3
Date Collected: 04/10/23 09:05
Matrix: Water
Date Received: 04/11/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 18:36	BPO	EET PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 18:26	VC1	EET PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620771	04/13/23 21:14	KJA	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 16:11	PG	EET PEN

Client Sample ID: MW27-ROX-041023
Lab Sample ID: 400-235857-4
Date Collected: 04/10/23 10:40
Matrix: Water
Date Received: 04/11/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 21:38	BPO	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 18:48	VC1	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620771	04/13/23 21:31	KJA	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 17:33	PG	EET PEN

Client Sample ID: MW26-ROX-041023
Lab Sample ID: 400-235857-5
Date Collected: 04/10/23 12:20
Matrix: Water
Date Received: 04/11/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 22:01	BPO	EET PEN
Total/NA	Prep	3520C			259 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 19:10	VC1	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW26-ROX-041023

Lab Sample ID: 400-235857-5

Date Collected: 04/10/23 12:20

Matrix: Water

Date Received: 04/11/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			259 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620771	04/13/23 21:48	KJA	EET PEN
Total/NA	Prep	8011			35.8 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 17:53	PG	EET PEN

Client Sample ID: MW16-ROX-041023

Lab Sample ID: 400-235857-6

Date Collected: 04/10/23 13:25

Matrix: Water

Date Received: 04/11/23 09:11

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 22:24	BPO	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 19:32	VC1	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620771	04/13/23 22:05	KJA	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 18:14	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-620486/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 16:13	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	620771	04/13/23 20:04	KJA	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621296/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 13:47	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621549/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 17:28	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620486/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 17:19	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	620771	04/13/23 20:22	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620486/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 16:35	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621296/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 14:07	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621549/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 16:26	BPO	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-620486/6-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 16:57	VC1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621296/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 14:28	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235857-1

Client Sample ID: MW9-ROX-041023
Date Collected: 04/10/23 09:05
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-3 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 18:59	BPO	EET PEN
Total/NA	Prep	3520C			250.8 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 17:41	VC1	EET PEN
Total/NA	Prep	3520C			250.8 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	620771	04/13/23 20:39	KJA	EET PEN
Total/NA	Prep	8011			33.6 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 16:31	PG	EET PEN

Client Sample ID: MW9-ROX-041023
Date Collected: 04/10/23 09:05
Date Received: 04/11/23 09:11

Lab Sample ID: 400-235857-3 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621549	04/19/23 19:22	BPO	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	620716	04/13/23 18:04	VC1	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	620486	04/12/23 08:58	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	620771	04/13/23 20:56	KJA	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	621296	04/18/23 10:32	PG	EET PEN
Total/NA	Analysis	8011		1			621332	04/18/23 16:52	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 621549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235857-1	TB-ROX-041023-8260	Total/NA	Water	8260B	
400-235857-3	MW9-ROX-041023	Total/NA	Water	8260B	
400-235857-4	MW27-ROX-041023	Total/NA	Water	8260B	
400-235857-5	MW26-ROX-041023	Total/NA	Water	8260B	
400-235857-6	MW16-ROX-041023	Total/NA	Water	8260B	
MB 400-621549/4	Method Blank	Total/NA	Water	8260B	
LCS 400-621549/1002	Lab Control Sample	Total/NA	Water	8260B	
400-235857-3 MS	MW9-ROX-041023	Total/NA	Water	8260B	
400-235857-3 MSD	MW9-ROX-041023	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 620486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235857-3	MW9-ROX-041023	Total/NA	Water	3520C	
400-235857-4	MW27-ROX-041023	Total/NA	Water	3520C	
400-235857-5	MW26-ROX-041023	Total/NA	Water	3520C	
400-235857-6	MW16-ROX-041023	Total/NA	Water	3520C	
MB 400-620486/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-620486/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-620486/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-620486/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-235857-3 MS	MW9-ROX-041023	Total/NA	Water	3520C	
400-235857-3 MSD	MW9-ROX-041023	Total/NA	Water	3520C	

Analysis Batch: 620716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235857-3	MW9-ROX-041023	Total/NA	Water	8270D	620486
400-235857-4	MW27-ROX-041023	Total/NA	Water	8270D	620486
400-235857-5	MW26-ROX-041023	Total/NA	Water	8270D	620486
400-235857-6	MW16-ROX-041023	Total/NA	Water	8270D	620486
MB 400-620486/1-A	Method Blank	Total/NA	Water	8270D	620486
LCS 400-620486/2-A	Lab Control Sample	Total/NA	Water	8270D	620486
LCS 400-620486/5-A	Lab Control Sample	Total/NA	Water	8270D	620486
LCSD 400-620486/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	620486
400-235857-3 MS	MW9-ROX-041023	Total/NA	Water	8270D	620486
400-235857-3 MSD	MW9-ROX-041023	Total/NA	Water	8270D	620486

Analysis Batch: 620771

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235857-3	MW9-ROX-041023	Total/NA	Water	8270D LL	620486
400-235857-4	MW27-ROX-041023	Total/NA	Water	8270D LL	620486
400-235857-5	MW26-ROX-041023	Total/NA	Water	8270D LL	620486
400-235857-6	MW16-ROX-041023	Total/NA	Water	8270D LL	620486
MB 400-620486/1-A	Method Blank	Total/NA	Water	8270D LL	620486
LCS 400-620486/2-A	Lab Control Sample	Total/NA	Water	8270D LL	620486
400-235857-3 MS	MW9-ROX-041023	Total/NA	Water	8270D LL	620486
400-235857-3 MSD	MW9-ROX-041023	Total/NA	Water	8270D LL	620486

GC Semi VOA

Prep Batch: 621296

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235857-2	TB-ROX-041023-8011	Total/NA	Water	8011	
400-235857-3	MW9-ROX-041023	Total/NA	Water	8011	
400-235857-4	MW27-ROX-041023	Total/NA	Water	8011	
400-235857-5	MW26-ROX-041023	Total/NA	Water	8011	
400-235857-6	MW16-ROX-041023	Total/NA	Water	8011	
MB 400-621296/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-621296/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-621296/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-235857-3 MS	MW9-ROX-041023	Total/NA	Water	8011	
400-235857-3 MSD	MW9-ROX-041023	Total/NA	Water	8011	

Analysis Batch: 621332

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235857-2	TB-ROX-041023-8011	Total/NA	Water	8011	621296
400-235857-3	MW9-ROX-041023	Total/NA	Water	8011	621296
400-235857-4	MW27-ROX-041023	Total/NA	Water	8011	621296
400-235857-5	MW26-ROX-041023	Total/NA	Water	8011	621296
400-235857-6	MW16-ROX-041023	Total/NA	Water	8011	621296
MB 400-621296/1-A	Method Blank	Total/NA	Water	8011	621296
LCS 400-621296/2-A	Lab Control Sample	Total/NA	Water	8011	621296
LCSD 400-621296/3-A	Lab Control Sample Dup	Total/NA	Water	8011	621296
400-235857-3 MS	MW9-ROX-041023	Total/NA	Water	8011	621296
400-235857-3 MSD	MW9-ROX-041023	Total/NA	Water	8011	621296

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621549/4
Matrix: Water
Analysis Batch: 621549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/23 17:28	1
Acrolein	ND		20	3.3	ug/L			04/19/23 17:28	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/23 17:28	1
Benzene	ND		1.0	0.13	ug/L			04/19/23 17:28	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/23 17:28	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/23 17:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/23 17:28	1
Bromoform	ND		5.0	0.25	ug/L			04/19/23 17:28	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/23 17:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/23 17:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/23 17:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/23 17:28	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/23 17:28	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/23 17:28	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/23 17:28	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/23 17:28	1
Chloroform	ND		1.0	1.0	ug/L			04/19/23 17:28	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/23 17:28	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/23 17:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/23 17:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/23 17:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/23 17:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/23 17:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/23 17:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/23 17:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/23 17:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/23 17:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 17:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 17:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 17:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/23 17:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/23 17:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/23 17:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/23 17:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/23 17:28	1
2-Hexanone	ND		25	1.4	ug/L			04/19/23 17:28	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/19/23 17:28	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/23 17:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/23 17:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/23 17:28	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/23 17:28	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/23 17:28	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/23 17:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/23 17:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/23 17:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/23 17:28	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/23 17:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/23 17:28	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621549/4
Matrix: Water
Analysis Batch: 621549

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/23 17:28	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/23 17:28	1
Styrene	ND		1.0	1.0	ug/L			04/19/23 17:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/23 17:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/23 17:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/23 17:28	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/23 17:28	1
Toluene	ND		1.0	0.41	ug/L			04/19/23 17:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/23 17:28	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/23 17:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/23 17:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/23 17:28	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/23 17:28	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/23 17:28	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/23 17:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/23 17:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/23 17:28	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/19/23 17:28	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/19/23 17:28	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/23 17:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/23 17:28	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/23 17:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/19/23 17:28*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/19/23 17:28*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/19/23 17:28*	*1*

Lab Sample ID: LCS 400-621549/1002
Matrix: Water
Analysis Batch: 621549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	204		ug/L		102	43 - 160
Acrolein	250	298		ug/L		119	38 - 160
Acrylonitrile	500	522		ug/L		104	64 - 142
Benzene	50.0	53.7		ug/L		107	70 - 130
Bromobenzene	50.0	45.4		ug/L		91	70 - 132
Bromochloromethane	50.0	51.3		ug/L		103	70 - 130
Bromodichloromethane	50.0	58.1		ug/L		116	67 - 133
Bromoform	50.0	50.8		ug/L		102	57 - 140
Bromomethane	25.0	19.5		ug/L		78	10 - 160
2-Butanone (MEK)	200	203		ug/L		101	61 - 145
Carbon disulfide	50.0	44.7		ug/L		89	61 - 137
Carbon tetrachloride	50.0	46.6		ug/L		93	61 - 137
Chlorobenzene	50.0	44.2		ug/L		88	70 - 130
Dibromochloromethane	50.0	48.0		ug/L		96	67 - 135
Chloroethane	25.0	23.9		ug/L		96	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621549/1002
Matrix: Water
Analysis Batch: 621549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	25.0	45.6	*+	ug/L		182	10 - 160
Chloroform	50.0	49.2		ug/L		98	69 - 130
1-Chlorohexane	50.0	45.4		ug/L		91	69 - 130
Chloromethane	25.0	29.4		ug/L		118	58 - 137
cis-1,2-Dichloroethene	50.0	54.6		ug/L		109	68 - 130
cis-1,3-Dichloropropene	50.0	71.0	*+	ug/L		142	69 - 132
1,2-Dichlorobenzene	50.0	41.9		ug/L		84	67 - 130
1,3-Dichlorobenzene	50.0	42.2		ug/L		84	70 - 130
1,4-Dichlorobenzene	50.0	41.8		ug/L		84	70 - 130
Dichlorodifluoromethane	25.0	17.7		ug/L		71	41 - 146
1,1-Dichloroethane	50.0	52.3		ug/L		105	70 - 130
1,2-Dichloroethane	50.0	52.0		ug/L		104	69 - 130
1,1-Dichloroethene	50.0	45.8		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	63.0		ug/L		126	70 - 130
1,3-Dichloropropane	50.0	52.6		ug/L		105	70 - 130
2,2-Dichloropropane	50.0	61.3		ug/L		123	52 - 135
1,1-Dichloropropene	50.0	49.3		ug/L		99	70 - 130
Ethylbenzene	50.0	43.2		ug/L		86	70 - 130
Ethyl methacrylate	50.0	58.9		ug/L		118	68 - 130
Hexachlorobutadiene	50.0	35.2		ug/L		70	53 - 140
2-Hexanone	200	210		ug/L		105	65 - 137
Isopropy benzene	50.0	40.5		ug/L		81	70 - 130
Methylene bromide	50.0	57.0		ug/L		114	70 - 130
Methylene Chloride	50.0	56.2		ug/L		112	66 - 135
4-Methyl-2-pentanone (MIBK)	200	286	*+	ug/L		143	69 - 138
Methyl tert-butyl ether	50.0	62.1		ug/L		124	66 - 130
m-Xylene & p-Xylene	50.0	41.7		ug/L		83	70 - 130
Naphthalene	50.0	44.8		ug/L		90	47 - 149
n-Butylbenzene	50.0	38.2		ug/L		76	67 - 130
N-Propylbenzene	50.0	42.9		ug/L		86	70 - 130
o-Chlorotoluene	50.0	40.7		ug/L		81	70 - 130
o-Xylene	50.0	42.9		ug/L		86	70 - 130
p-Chlorotoluene	50.0	44.2		ug/L		88	70 - 130
p-Isopropyltoluene	50.0	41.3		ug/L		83	65 - 130
sec-Butylbenzene	50.0	40.7		ug/L		81	66 - 130
Styrene	50.0	45.0		ug/L		90	70 - 130
tert-Butylbenzene	50.0	41.2		ug/L		82	64 - 139
1,1,1,2-Tetrachloroethane	50.0	49.7		ug/L		99	67 - 131
1,1,2,2-Tetrachloroethane	50.0	50.1		ug/L		100	70 - 131
Tetrachloroethene	50.0	45.3		ug/L		91	65 - 130
Toluene	50.0	42.5		ug/L		85	70 - 130
trans-1,2-Dichloroethene	50.0	46.7		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	58.1		ug/L		116	63 - 130
1,2,3-Trichlorobenzene	50.0	44.1		ug/L		88	60 - 138
1,2,4-Trichlorobenzene	50.0	43.6		ug/L		87	60 - 140
1,1,1-Trichloroethane	50.0	45.6		ug/L		91	68 - 130
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	70 - 130
Trichloroethene	50.0	49.8		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	20.4		ug/L		82	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621549/1002
Matrix: Water
Analysis Batch: 621549

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	46.3		ug/L		93	70 - 130
1,2,4-Trimethy benzene	50.0	43.8		ug/L		88	70 - 130
1,3,5-Trimethy benzene	50.0	42.8		ug/L		86	69 - 130
Vinyl acetate	50.0	76.8		ug/L		154	26 - 160
Vinyl chloride	25.0	21.5		ug/L		86	59 - 136
Xylenes, Total	100	84.6		ug/L		85	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*89*		*64 - 132*

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 621549

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	229		ug/L		114	43 - 150
Acrolein	ND		250	323		ug/L		129	38 - 150
Acrylonitrile	ND		500	587		ug/L		117	62 - 149
Benzene	0.71	J	50.0	51.1		ug/L		101	56 - 142
Bromobenzene	ND		50.0	39.7		ug/L		79	59 - 136
Bromochloromethane	ND		50.0	49.8		ug/L		100	64 - 140
Bromodichloromethane	ND		50.0	53.2		ug/L		106	59 - 143
Bromoform	ND		50.0	48.8		ug/L		98	50 - 140
Bromomethane	ND		25.0	9.83		ug/L		39	10 - 150
2-Butanone (MEK)	ND		200	226		ug/L		113	55 - 150
Carbon disulfide	ND		50.0	42.1		ug/L		84	48 - 150
Carbon tetrachloride	ND		50.0	46.2		ug/L		92	55 - 145
Chlorobenzene	ND		50.0	39.6		ug/L		79	64 - 130
Dibromochloromethane	ND		50.0	44.9		ug/L		90	56 - 143
Chloroethane	ND		25.0	12.5		ug/L		50	50 - 150
2-Chloroethyl vinyl ether	ND	F1 *+	25.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	48.8		ug/L		98	60 - 141
1-Chlorohexane	ND		50.0	39.5		ug/L		79	56 - 136
Chloromethane	ND		25.0	26.3		ug/L		105	49 - 148
cis-1,2-Dichloroethene	ND		50.0	55.4		ug/L		111	59 - 143
cis-1,3-Dichloropropene	ND	*+	50.0	60.9		ug/L		122	57 - 140
1,2-Dichlorobenzene	ND		50.0	36.4		ug/L		73	52 - 137
1,3-Dichlorobenzene	ND		50.0	35.9		ug/L		72	54 - 135
1,4-Dichlorobenzene	ND		50.0	35.3		ug/L		71	53 - 135
Dichlorodifluoromethane	ND		25.0	9.67		ug/L		39	16 - 150
1,1-Dichloroethane	ND		50.0	52.4		ug/L		105	61 - 144
1,2-Dichloroethane	ND		50.0	53.6		ug/L		107	60 - 141
1,1-Dichloroethene	ND		50.0	43.7		ug/L		87	54 - 147
1,2-Dichloropropane	ND		50.0	59.7		ug/L		119	66 - 137
1,3-Dichloropropane	ND		50.0	50.0		ug/L		100	66 - 133
2,2-Dichloropropane	ND		50.0	60.9		ug/L		122	42 - 144

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 621549

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	ND		50.0	47.9		ug/L		96	65 - 136
Ethylbenzene	ND		50.0	38.3		ug/L		77	58 - 131
Ethyl methacrylate	ND		50.0	56.5		ug/L		113	64 - 130
Hexachlorobutadiene	ND		50.0	27.4		ug/L		55	31 - 149
2-Hexanone	ND		200	216		ug/L		108	65 - 140
Isopropy benzene	ND		50.0	35.1		ug/L		70	56 - 133
Methylene bromide	ND		50.0	54.1		ug/L		108	63 - 138
Methylene Chloride	ND		50.0	55.5		ug/L		111	60 - 146
4-Methyl-2-pentanone (MIBK)	ND	*+	200	279		ug/L		139	63 - 146
Methyl tert-butyl ether	ND		50.0	62.4		ug/L		125	59 - 137
m-Xylene & p-Xylene	ND		50.0	37.0		ug/L		74	57 - 130
Naphthalene	ND		50.0	42.2		ug/L		84	25 - 150
n-Butylbenzene	ND		50.0	31.0		ug/L		62	41 - 142
N-Propylbenzene	ND		50.0	36.1		ug/L		72	51 - 138
o-Chlorotoluene	ND		50.0	35.4		ug/L		71	53 - 134
o-Xylene	ND		50.0	38.1		ug/L		76	61 - 130
p-Chlorotoluene	ND		50.0	37.4		ug/L		75	54 - 133
p-Isopropyltoluene	ND		50.0	33.6		ug/L		67	48 - 139
sec-Butylbenzene	ND		50.0	33.9		ug/L		68	50 - 138
Styrene	ND		50.0	39.6		ug/L		79	58 - 131
tert-Butylbenzene	ND		50.0	34.9		ug/L		70	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	45.7		ug/L		91	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	50.3		ug/L		101	66 - 135
Tetrachloroethene	ND		50.0	37.2		ug/L		74	52 - 133
Toluene	ND		50.0	39.3		ug/L		79	65 - 130
trans-1,2-Dichloroethene	ND		50.0	44.5		ug/L		89	61 - 143
trans-1,3-Dichloropropene	ND		50.0	54.2		ug/L		108	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	38.6		ug/L		77	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	35.4		ug/L		71	39 - 148
1,1,1-Trichloroethane	ND		50.0	45.6		ug/L		91	57 - 142
1,1,2-Trichloroethane	ND		50.0	48.2		ug/L		96	66 - 131
Trichloroethene	ND		50.0	44.9		ug/L		90	64 - 136
Trichlorofluoromethane	ND		25.0	19.4		ug/L		78	54 - 150
1,2,3-Trichloropropane	ND		50.0	46.7		ug/L		93	65 - 133
1,2,4-Trimethy benzene	ND		50.0	36.6		ug/L		73	50 - 139
1,3,5-Trimethy benzene	ND		50.0	36.6		ug/L		73	52 - 135
Vinyl acetate	ND	F1	50.0	81.8	F1	ug/L		164	26 - 150
Vinyl chloride	ND		25.0	19.3		ug/L		77	46 - 150
Xylenes, Total	ND		100	75.1		ug/L		75	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*90*		*64 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235857-3 MSD
Matrix: Water
Analysis Batch: 621549

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND		200	220		ug/L		110	43 - 150	4	30
Acrolein	ND		250	320		ug/L		128	38 - 150	1	31
Acrylonitrile	ND		500	593		ug/L		119	62 - 149	1	30
Benzene	0.71	J	50.0	52.0		ug/L		103	56 - 142	2	30
Bromobenzene	ND		50.0	39.7		ug/L		79	59 - 136	0	30
Bromochloromethane	ND		50.0	50.7		ug/L		101	64 - 140	2	30
Bromodichloromethane	ND		50.0	52.9		ug/L		106	59 - 143	1	30
Bromoform	ND		50.0	50.2		ug/L		100	50 - 140	3	30
Bromomethane	ND		25.0	11.8		ug/L		47	10 - 150	18	50
2-Butanone (MEK)	ND		200	225		ug/L		113	55 - 150	0	30
Carbon disulfide	ND		50.0	43.7		ug/L		87	48 - 150	4	30
Carbon tetrachloride	ND		50.0	45.3		ug/L		91	55 - 145	2	30
Chlorobenzene	ND		50.0	38.7		ug/L		77	64 - 130	2	30
Dibromochloromethane	ND		50.0	44.7		ug/L		89	56 - 143	0	30
Chloroethane	ND		25.0	13.2		ug/L		53	50 - 150	6	30
2-Chloroethyl vinyl ether	ND	F1 *+	25.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	48.5		ug/L		97	60 - 141	1	30
1-Chlorohexane	ND		50.0	36.2		ug/L		72	56 - 136	9	30
Chloromethane	ND		25.0	27.9		ug/L		112	49 - 148	6	31
cis-1,2-Dichloroethene	ND		50.0	55.3		ug/L		111	59 - 143	0	30
cis-1,3-Dichloropropene	ND	*+	50.0	61.5		ug/L		123	57 - 140	1	30
1,2-Dichlorobenzene	ND		50.0	35.5		ug/L		71	52 - 137	3	30
1,3-Dichlorobenzene	ND		50.0	34.3		ug/L		69	54 - 135	5	30
1,4-Dichlorobenzene	ND		50.0	33.9		ug/L		68	53 - 135	4	30
Dichlorodifluoromethane	ND		25.0	10.6		ug/L		42	16 - 150	9	31
1,1-Dichloroethane	ND		50.0	52.4		ug/L		105	61 - 144	0	30
1,2-Dichloroethane	ND		50.0	51.5		ug/L		103	60 - 141	4	30
1,1-Dichloroethene	ND		50.0	45.8		ug/L		92	54 - 147	5	30
1,2-Dichloropropane	ND		50.0	60.1		ug/L		120	66 - 137	1	30
1,3-Dichloropropane	ND		50.0	49.8		ug/L		100	66 - 133	0	30
2,2-Dichloropropane	ND		50.0	60.9		ug/L		122	42 - 144	0	31
1,1-Dichloropropene	ND		50.0	47.5		ug/L		95	65 - 136	1	30
Ethylbenzene	ND		50.0	36.8		ug/L		74	58 - 131	4	30
Ethyl methacrylate	ND		50.0	56.5		ug/L		113	64 - 130	0	30
Hexachlorobutadiene	ND		50.0	26.1		ug/L		52	31 - 149	5	36
2-Hexanone	ND		200	202		ug/L		101	65 - 140	6	30
Isopropy benzene	ND		50.0	33.7		ug/L		67	56 - 133	4	30
Methylene bromide	ND		50.0	55.0		ug/L		110	63 - 138	2	30
Methylene Chloride	ND		50.0	57.0		ug/L		114	60 - 146	3	32
4-Methyl-2-pentanone (MIBK)	ND	*+	200	269		ug/L		135	63 - 146	3	30
Methyl tert-butyl ether	ND		50.0	63.4		ug/L		127	59 - 137	2	30
m-Xylene & p-Xylene	ND		50.0	35.5		ug/L		71	57 - 130	4	30
Naphthalene	ND		50.0	44.1		ug/L		88	25 - 150	5	30
n-Butylbenzene	ND		50.0	27.6		ug/L		55	41 - 142	11	31
N-Propylbenzene	ND		50.0	34.0		ug/L		68	51 - 138	6	30
o-Chlorotoluene	ND		50.0	33.4		ug/L		67	53 - 134	6	30
o-Xylene	ND		50.0	37.2		ug/L		74	61 - 130	3	30
p-Chlorotoluene	ND		50.0	35.3		ug/L		71	54 - 133	6	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235857-3 MSD
Matrix: Water
Analysis Batch: 621549

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	31.4		ug/L		63	48 - 139	7	30
sec-Butylbenzene	ND		50.0	31.3		ug/L		63	50 - 138	8	30
Styrene	ND		50.0	39.0		ug/L		78	58 - 131	2	30
tert-Butylbenzene	ND		50.0	32.5		ug/L		65	54 - 146	7	30
1,1,1,2-Tetrachloroethane	ND		50.0	45.4		ug/L		91	59 - 137	1	30
1,1,2,2-Tetrachloroethane	ND		50.0	50.6		ug/L		101	66 - 135	1	30
Tetrachloroethene	ND		50.0	36.6		ug/L		73	52 - 133	1	30
Toluene	ND		50.0	39.4		ug/L		79	65 - 130	0	30
trans-1,2-Dichloroethene	ND		50.0	45.7		ug/L		91	61 - 143	3	30
trans-1,3-Dichloropropene	ND		50.0	53.4		ug/L		107	53 - 133	1	30
1,2,3-Trichlorobenzene	ND		50.0	38.6		ug/L		77	43 - 145	0	30
1,2,4-Trichlorobenzene	ND		50.0	36.0		ug/L		72	39 - 148	2	30
1,1,1-Trichloroethane	ND		50.0	45.1		ug/L		90	57 - 142	1	30
1,1,2-Trichloroethane	ND		50.0	48.4		ug/L		97	66 - 131	0	30
Trichloroethene	ND		50.0	45.7		ug/L		91	64 - 136	2	30
Trichlorofluoromethane	ND		25.0	19.8		ug/L		79	54 - 150	2	30
1,2,3-Trichloropropane	ND		50.0	47.2		ug/L		94	65 - 133	1	30
1,2,4-Trimethy benzene	ND		50.0	34.8		ug/L		70	50 - 139	5	30
1,3,5-Trimethy benzene	ND		50.0	34.6		ug/L		69	52 - 135	6	30
Vinyl acetate	ND	F1	50.0	84.0	F1	ug/L		168	26 - 150	3	33
Vinyl chloride	ND		25.0	24.9		ug/L		100	46 - 150	26	30
Xylenes, Total	ND		100	72.7		ug/L		73	59 - 130	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*89*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-620486/1-A
Matrix: Water
Analysis Batch: 620716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/12/23 08:58	04/13/23 16:13	1
Benzenethiol	ND		10	1.7	ug/L		04/12/23 08:58	04/13/23 16:13	1
Benzoic acid	ND		30	7.3	ug/L		04/12/23 08:58	04/13/23 16:13	1
Benzyl alcohol	ND		10	2.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/12/23 08:58	04/13/23 16:13	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/12/23 08:58	04/13/23 16:13	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/12/23 08:58	04/13/23 16:13	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/12/23 08:58	04/13/23 16:13	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/12/23 08:58	04/13/23 16:13	1
4-Chloroaniline	ND		10	3.4	ug/L		04/12/23 08:58	04/13/23 16:13	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/12/23 08:58	04/13/23 16:13	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/12/23 08:58	04/13/23 16:13	1
2-Chlorophenol	ND		10	2.2	ug/L		04/12/23 08:58	04/13/23 16:13	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-620486/1-A
Matrix: Water
Analysis Batch: 620716

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
Dibenzofuran	ND		10	0.17	ug/L		04/12/23 08:58	04/13/23 16:13	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/12/23 08:58	04/13/23 16:13	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
Diethyl phthalate	ND		10	0.24	ug/L		04/12/23 08:58	04/13/23 16:13	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/12/23 08:58	04/13/23 16:13	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/12/23 08:58	04/13/23 16:13	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/12/23 08:58	04/13/23 16:13	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/12/23 08:58	04/13/23 16:13	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/12/23 08:58	04/13/23 16:13	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/12/23 08:58	04/13/23 16:13	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/12/23 08:58	04/13/23 16:13	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/12/23 08:58	04/13/23 16:13	1
1,4-Dioxane	ND		10	1.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/12/23 08:58	04/13/23 16:13	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/12/23 08:58	04/13/23 16:13	1
Hexachloroethane	ND		10	4.2	ug/L		04/12/23 08:58	04/13/23 16:13	1
Indene	ND		10	1.0	ug/L		04/12/23 08:58	04/13/23 16:13	1
Isophorone	ND		10	0.14	ug/L		04/12/23 08:58	04/13/23 16:13	1
2-Methylphenol	ND		10	1.8	ug/L		04/12/23 08:58	04/13/23 16:13	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/12/23 08:58	04/13/23 16:13	1
2-Nitroaniline	ND		10	2.2	ug/L		04/12/23 08:58	04/13/23 16:13	1
3-Nitroaniline	ND		10	1.8	ug/L		04/12/23 08:58	04/13/23 16:13	1
4-Nitroaniline	ND		10	1.5	ug/L		04/12/23 08:58	04/13/23 16:13	1
Nitrobenzene	ND		10	0.13	ug/L		04/12/23 08:58	04/13/23 16:13	1
2-Nitrophenol	ND		10	5.2	ug/L		04/12/23 08:58	04/13/23 16:13	1
4-Nitrophenol	ND		10	2.1	ug/L		04/12/23 08:58	04/13/23 16:13	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/12/23 08:58	04/13/23 16:13	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/12/23 08:58	04/13/23 16:13	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/12/23 08:58	04/13/23 16:13	1
Pentachlorophenol	ND		20	1.4	ug/L		04/12/23 08:58	04/13/23 16:13	1
Phenol	ND		10	2.6	ug/L		04/12/23 08:58	04/13/23 16:13	1
Pyridine	ND		10	3.2	ug/L		04/12/23 08:58	04/13/23 16:13	1
Quinoline	ND		10	4.5	ug/L		04/12/23 08:58	04/13/23 16:13	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/12/23 08:58	04/13/23 16:13	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/12/23 08:58	04/13/23 16:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*04/12/23 08:58*	*04/13/23 16:13*	*1*
2-Fluorophenol	*16*		*13 - 113*	*04/12/23 08:58*	*04/13/23 16:13*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/12/23 08:58*	*04/13/23 16:13*	*1*
Phenol-d5	*56*		*17 - 127*	*04/12/23 08:58*	*04/13/23 16:13*	*1*
Terphenyl-d14	*90*		*44 - 149*	*04/12/23 08:58*	*04/13/23 16:13*	*1*
2,4,6-Tribromophenol	*70*		*26 - 150*	*04/12/23 08:58*	*04/13/23 16:13*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-620486/2-A
Matrix: Water
Analysis Batch: 620716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	554	281		ug/L		51	10 - 144
Benzyl alcohol	120	102		ug/L		85	28 - 120
Bis(2-chloroethoxy)methane	120	93.0		ug/L		78	47 - 120
Bis(2-chloroethyl)ether	120	91.3		ug/L		76	44 - 120
bis (2-chloroisopropyl) ether	120	94.9		ug/L		79	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
Butyl benzyl phthalate	120	110		ug/L		91	54 - 133
4-Chloroaniline	120	104		ug/L		86	26 - 120
4-Chloro-3-methylphenol	120	97.7		ug/L		81	48 - 131
2-Chloronaphthalene	120	105		ug/L		87	52 - 121
2-Chlorophenol	120	62.9		ug/L		52	40 - 120
4-Chlorophenyl phenyl ether	120	109		ug/L		91	56 - 125
Dibenz[a,h]acridine	120	109		ug/L		91	31 - 150
Dibenzofuran	120	110		ug/L		92	56 - 122
3,3'-Dichlorobenzidine	160	214	*+	ug/L		134	36 - 132
2,4-Dichlorophenol	120	85.3		ug/L		71	49 - 120
Diethyl phthalate	120	112		ug/L		93	50 - 137
2,4-Dimethylphenol	120	81.4		ug/L		68	48 - 120
Dimethyl phthalate	120	105		ug/L		87	57 - 124
Di-n-butyl phthalate	120	117		ug/L		97	58 - 126
4,6-Dinitro-ortho-cresol	240	190		ug/L		79	23 - 148
2,4-Dinitrophenol	240	216		ug/L		90	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	105		ug/L		88	55 - 130
Di-n-octyl phthalate	120	109		ug/L		91	57 - 138
1,4-Dioxane	120	43.8		ug/L		37	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	105		ug/L		88	45 - 124
Hexachlorobenzene	120	110		ug/L		92	52 - 129
Hexachlorocyclopentadiene	120	59.8		ug/L		50	10 - 134
Hexachloroethane	120	97.8		ug/L		82	20 - 120
Indene	120	96.7		ug/L		81	49 - 120
Isophorone	120	94.4		ug/L		79	48 - 120
2-Methylphenol	120	89.5		ug/L		75	46 - 124
3 & 4 Methylphenol	120	89.9		ug/L		75	45 - 120
2-Nitroaniline	120	104		ug/L		87	51 - 145
3-Nitroaniline	120	101		ug/L		84	37 - 127
4-Nitroaniline	120	112		ug/L		94	36 - 137
Nitrobenzene	120	93.5		ug/L		78	45 - 120
2-Nitrophenol	120	84.1		ug/L		70	40 - 124
4-Nitrophenol	240	241		ug/L		100	23 - 146
N-Nitrosodimethylamine	120	75.2		ug/L		63	29 - 137
N-Nitrosodi-n-propylamine	120	106		ug/L		88	45 - 120
N-Nitrosodiphenylamine	119	105		ug/L		88	54 - 120
Pentachlorophenol	240	173		ug/L		72	31 - 130
Phenol	120	68.1		ug/L		57	11 - 120
Pyridine	240	158		ug/L		66	16 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-620486/2-A
Matrix: Water
Analysis Batch: 620716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	112		ug/L		94	49 - 130
2,4,5-Trichlorophenol	120	92.0		ug/L		77	51 - 136
2,4,6-Trichlorophenol	120	88.5		ug/L		74	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*82*		*36 - 126*
Phenol-d5	*60*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*86*		*26 - 150*

Lab Sample ID: LCS 400-620486/5-A
Matrix: Water
Analysis Batch: 620716

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.72	J *-	ug/L		6	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*76*		*17 - 127*
Terphenyl-d14	*103*		*44 - 149*
2,4,6-Tribromophenol	*65*		*26 - 150*

Lab Sample ID: LCSD 400-620486/6-A
Matrix: Water
Analysis Batch: 620716

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.33	J *-	ug/L		5	10 - 120	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*71*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*65*		*26 - 150*

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 620716

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		120	92.3		ug/L		77	10 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 620716

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzoic acid	ND		552	295		ug/L		53	10 - 149
Benzyl alcohol	ND		120	101		ug/L		84	33 - 120
Bis(2-chloroethoxy)methane	ND		120	91.5		ug/L		76	26 - 120
Bis(2-chloroethyl)ether	ND		120	101		ug/L		85	42 - 120
bis (2-chloroisopropyl) ether	ND		120	93.4		ug/L		78	28 - 120
Bis(2-ethylhexyl) phthalate	ND		120	107		ug/L		90	39 - 120
4-Bromophenyl phenyl ether	ND		120	107		ug/L		90	40 - 120
Butyl benzyl phthalate	2.2	J	120	108		ug/L		88	45 - 120
4-Chloroaniline	ND		120	97.4		ug/L		81	10 - 120
4-Chloro-3-methylphenol	ND		120	105		ug/L		88	34 - 120
2-Chloronaphthalene	ND		120	104		ug/L		87	39 - 120
2-Chlorophenol	ND		120	71.6		ug/L		60	25 - 120
4-Chlorophenyl phenyl ether	ND		120	109		ug/L		91	44 - 120
Dibenz[a,h]acridine	ND		119	116		ug/L		97	50 - 150
Dibenzofuran	ND		120	109		ug/L		91	25 - 130
3,3'-Dichlorobenzidine	ND	*+ F1	159	213	F1	ug/L		134	10 - 120
2,4-Dichlorophenol	ND		120	98.9		ug/L		83	31 - 120
Diethyl phthalate	ND		120	111		ug/L		93	46 - 120
2,4-Dimethylphenol	ND		120	83.0		ug/L		69	21 - 120
Dimethyl phthalate	ND		120	104		ug/L		87	38 - 120
Di-n-butyl phthalate	ND		120	118		ug/L		98	49 - 120
4,6-Dinitro-ortho-cresol	ND		239	200		ug/L		83	25 - 120
2,4-Dinitrophenol	ND		239	222		ug/L		93	15 - 140
2,4-Dinitrotoluene	ND		120	108		ug/L		90	53 - 120
2,6-Dinitrotoluene	ND		120	105		ug/L		87	43 - 120
Di-n-octyl phthalate	ND		120	109		ug/L		91	35 - 121
1,4-Dioxane	ND	F1 F2	120	43.2	F1	ug/L		36	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		120	103		ug/L		86	50 - 150
Hexachlorobenzene	ND		120	112		ug/L		93	38 - 122
Hexachlorocyclopentadiene	ND		120	66.3		ug/L		55	10 - 120
Hexachloroethane	ND		120	97.3		ug/L		81	10 - 150
Indene	ND		120	96.3		ug/L		81	50 - 150
Isophorone	ND		120	93.3		ug/L		78	42 - 120
2-Methylphenol	ND		120	97.8		ug/L		82	28 - 120
3 & 4 Methylphenol	ND		120	99.3		ug/L		83	31 - 120
2-Nitroaniline	ND		120	103		ug/L		86	45 - 120
3-Nitroaniline	ND		120	96.8		ug/L		81	10 - 130
4-Nitroaniline	ND		120	119		ug/L		100	10 - 132
Nitrobenzene	ND		120	92.9		ug/L		78	39 - 120
2-Nitrophenol	ND		120	98.6		ug/L		82	33 - 120
4-Nitrophenol	ND		239	247		ug/L		103	10 - 120
N-Nitrosodimethylamine	ND		120	91.9		ug/L		77	10 - 139
N-Nitrosodi-n-propylamine	ND		120	103		ug/L		86	37 - 124
N-Nitrosodiphenylamine	ND		119	103		ug/L		87	10 - 150
Pentachlorophenol	ND		239	187		ug/L		78	29 - 130
Phenol	ND		120	78.0		ug/L		65	10 - 150
Pyridine	ND		239	158		ug/L		66	10 - 120
Quinoline	ND		119	113		ug/L		94	51 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 620716

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		120	99.4		ug/L		83	34 - 120
2,4,6-Trichlorophenol	ND		120	96.6		ug/L		81	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*67*		*17 - 127*
Terphenyl-d14	*91*		*44 - 149*
2,4,6-Tribromophenol	*94*		*26 - 150*

Lab Sample ID: 400-235857-3 MSD
Matrix: Water
Analysis Batch: 620716

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		117	98.0		ug/L		84	10 - 120	6	63
Benzoic acid	ND		541	313		ug/L		58	10 - 149	6	49
Benzyl alcohol	ND		117	102		ug/L		87	33 - 120	1	37
Bis(2-chloroethoxy)methane	ND		117	92.3		ug/L		79	26 - 120	1	70
Bis(2-chloroethyl)ether	ND		117	97.9		ug/L		83	42 - 120	3	42
bis (2-chloroisopropyl) ether	ND		117	94.4		ug/L		80	28 - 120	1	41
Bis(2-ethylhexyl) phthalate	ND		117	109		ug/L		93	39 - 120	2	35
4-Bromophenyl phenyl ether	ND		117	108		ug/L		92	40 - 120	1	30
Butyl benzyl phthalate	2.2	J	117	113		ug/L		94	45 - 120	5	32
4-Chloroaniline	ND		117	106		ug/L		91	10 - 120	9	94
4-Chloro-3-methylphenol	ND		117	105		ug/L		89	34 - 120	0	40
2-Chloronaphthalene	ND		117	106		ug/L		91	39 - 120	2	29
2-Chlorophenol	ND		117	77.8		ug/L		66	25 - 120	8	42
4-Chlorophenyl phenyl ether	ND		117	108		ug/L		92	44 - 120	0	27
Dibenz[a,h]acridine	ND		117	114		ug/L		97	50 - 150	1	40
Dibenzofuran	ND		117	111		ug/L		94	25 - 130	2	29
3,3'-Dichlorobenzidine	ND	*+ F1	156	220	F1	ug/L		141	10 - 120	3	58
2,4-Dichlorophenol	ND		117	100		ug/L		86	31 - 120	2	43
Diethyl phthalate	ND		117	111		ug/L		95	46 - 120	0	40
2,4-Dimethylphenol	ND		117	83.3		ug/L		71	21 - 120	0	47
Dimethyl phthalate	ND		117	104		ug/L		89	38 - 120	0	36
Di-n-butyl phthalate	ND		117	117		ug/L		100	49 - 120	0	32
4,6-Dinitro-ortho-cresol	ND		235	195		ug/L		83	25 - 120	2	42
2,4-Dinitrophenol	ND		235	218		ug/L		93	15 - 140	2	36
2,4-Dinitrotoluene	ND		117	108		ug/L		92	53 - 120	0	28
2,6-Dinitrotoluene	ND		117	105		ug/L		89	43 - 120	0	28
Di-n-octyl phthalate	ND		117	108		ug/L		92	35 - 121	1	35
1,4-Dioxane	ND	F1 F2	117	68.1	F2	ug/L		58	50 - 150	45	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		117	104		ug/L		89	50 - 150	1	40
Hexachlorobenzene	ND		117	111		ug/L		94	38 - 122	1	33
Hexachlorocyclopentadiene	ND		117	61.3		ug/L		52	10 - 120	8	50
Hexachloroethane	ND		117	95.4		ug/L		81	10 - 150	2	41

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235857-3 MSD
Matrix: Water
Analysis Batch: 620716

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene	ND		117	96.3		ug/L		82	50 - 150	0	40
Isophorone	ND		117	93.5		ug/L		80	42 - 120	0	33
2-Methylphenol	ND		117	101		ug/L		86	28 - 120	3	47
3 & 4 Methylphenol	ND		117	102		ug/L		87	31 - 120	3	47
2-Nitroaniline	ND		117	102		ug/L		87	45 - 120	1	33
3-Nitroaniline	ND		117	99.7		ug/L		85	10 - 130	3	39
4-Nitroaniline	ND		117	118		ug/L		100	10 - 132	1	50
Nitrobenzene	ND		117	93.4		ug/L		80	39 - 120	0	35
2-Nitrophenol	ND		117	104		ug/L		88	33 - 120	5	43
4-Nitrophenol	ND		235	241		ug/L		103	10 - 120	2	82
N-Nitrosodimethylamine	ND		117	93.8		ug/L		80	10 - 139	2	62
N-Nitrosodi-n-propylamine	ND		117	103		ug/L		88	37 - 124	0	36
N-Nitrosodiphenylamine	ND		116	105		ug/L		90	10 - 150	2	34
Pentachlorophenol	ND		235	178		ug/L		76	29 - 130	5	42
Phenol	ND		117	81.7		ug/L		70	10 - 150	5	52
Pyridine	ND		235	161		ug/L		68	10 - 120	1	55
Quinoline	ND		117	113		ug/L		97	51 - 120	0	40
2,4,5-Trichlorophenol	ND		117	101		ug/L		86	34 - 120	2	42
2,4,6-Trichlorophenol	ND		117	99.5		ug/L		85	33 - 120	3	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*90*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*93*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-620486/1-A
Matrix: Water
Analysis Batch: 620771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/12/23 08:58	04/13/23 20:04	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/12/23 08:58	04/13/23 20:04	1
Anthracene	ND		0.20	0.032	ug/L		04/12/23 08:58	04/13/23 20:04	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/12/23 08:58	04/13/23 20:04	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/12/23 08:58	04/13/23 20:04	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/12/23 08:58	04/13/23 20:04	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/12/23 08:58	04/13/23 20:04	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/12/23 08:58	04/13/23 20:04	1
Chrysene	ND		0.20	0.074	ug/L		04/12/23 08:58	04/13/23 20:04	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/12/23 08:58	04/13/23 20:04	1
Fluoranthene	ND		0.20	0.068	ug/L		04/12/23 08:58	04/13/23 20:04	1
Fluorene	ND		0.20	0.11	ug/L		04/12/23 08:58	04/13/23 20:04	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/12/23 08:58	04/13/23 20:04	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/12/23 08:58	04/13/23 20:04	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-620486/1-A
Matrix: Water
Analysis Batch: 620771

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620486

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/12/23 08:58	04/13/23 20:04	1
Phenanthrene	ND		0.20	0.036	ug/L		04/12/23 08:58	04/13/23 20:04	1
Pyrene	ND		0.20	0.040	ug/L		04/12/23 08:58	04/13/23 20:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/12/23 08:58*	*04/13/23 20:04*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/12/23 08:58*	*04/13/23 20:04*	*1*
Terphenyl-d14	*133*		*33 - 138*	*04/12/23 08:58*	*04/13/23 20:04*	*1*

Lab Sample ID: LCS 400-620486/2-A
Matrix: Water
Analysis Batch: 620771

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	102		ug/L		85	41 - 120
Acenaphthylene	120	111		ug/L		92	44 - 120
Anthracene	120	116		ug/L		96	49 - 120
Benzo[a]anthracene	120	113		ug/L		95	61 - 135
Benzo[a]pyrene	120	111		ug/L		93	52 - 120
Benzo[b]fluoranthene	120	109		ug/L		91	53 - 134
Benzo[g,h,i]perylene	120	118		ug/L		98	47 - 133
Benzo[k]fluoranthene	120	97.5		ug/L		81	57 - 134
Chrysene	120	103		ug/L		86	55 - 122
Dibenz(a,h)anthracene	120	132		ug/L		110	48 - 146
Fluoranthene	120	114		ug/L		95	54 - 128
Fluorene	120	122		ug/L		102	45 - 125
Indeno[1,2,3-cd]pyrene	120	118		ug/L		99	43 - 142
1-Methylnaphthalene	120	105		ug/L		88	41 - 120
2-Methylnaphthalene	120	109		ug/L		91	32 - 124
Phenanthrene	120	106		ug/L		88	48 - 120
Pyrene	120	101		ug/L		84	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*15 - 122*
Nitrobenzene-d5	*79*		*19 - 130*
Terphenyl-d14	*88*		*33 - 138*

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 620771

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		120	101		ug/L		85	35 - 113
Acenaphthylene	ND		120	113		ug/L		94	41 - 118
Anthracene	ND		120	113		ug/L		94	45 - 122
Benzo[a]anthracene	ND		120	112		ug/L		94	55 - 133
Benzo[a]pyrene	ND		120	111		ug/L		93	50 - 108
Benzo[b]fluoranthene	ND		120	111		ug/L		93	50 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 620771

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	ND		120	119		ug/L		100	46 - 133
Benzo[k]fluoranthene	ND		120	97.0		ug/L		81	52 - 128
Chrysene	ND		120	102		ug/L		85	52 - 116
Dibenz(a,h)anthracene	ND		120	133		ug/L		111	52 - 143
Fluoranthene	ND		120	118		ug/L		99	32 - 150
Fluorene	ND		120	122		ug/L		102	15 - 150
Indeno[1,2,3-cd]pyrene	ND		120	120		ug/L		101	41 - 141
1-Methylnaphthalene	ND		120	99.2		ug/L		83	10 - 150
2-Methylnaphthalene	ND		120	101		ug/L		85	10 - 150
Phenanthrene	ND		120	103		ug/L		86	36 - 125
Pyrene	ND		120	97.9		ug/L		82	41 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*15 - 122*
Nitrobenzene-d5	*64*		*19 - 130*
Terphenyl-d14	*88*		*33 - 138*

Lab Sample ID: 400-235857-3 MSD
Matrix: Water
Analysis Batch: 620771

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 620486

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		117	96.9		ug/L		83	35 - 113	4	49
Acenaphthylene	ND		117	110		ug/L		94	41 - 118	3	48
Anthracene	ND		117	112		ug/L		96	45 - 122	0	56
Benzo[a]anthracene	ND		117	111		ug/L		95	55 - 133	1	57
Benzo[a]pyrene	ND		117	108		ug/L		92	50 - 108	3	59
Benzo[b]fluoranthene	ND		117	108		ug/L		92	50 - 128	3	62
Benzo[g,h,i]perylene	ND		117	117		ug/L		100	46 - 133	2	58
Benzo[k]fluoranthene	ND		117	93.3		ug/L		80	52 - 128	4	58
Chrysene	ND		117	102		ug/L		87	52 - 116	0	59
Dibenz(a,h)anthracene	ND		117	128		ug/L		109	52 - 143	4	60
Fluoranthene	ND		117	110		ug/L		94	32 - 150	7	59
Fluorene	ND		117	115		ug/L		98	15 - 150	6	49
Indeno[1,2,3-cd]pyrene	ND		117	112		ug/L		96	41 - 141	7	58
1-Methylnaphthalene	ND		117	95.9		ug/L		82	10 - 150	3	66
2-Methylnaphthalene	ND		117	98.5		ug/L		84	10 - 150	3	66
Phenanthrene	ND		117	100		ug/L		85	36 - 125	3	69
Pyrene	ND		117	100		ug/L		86	41 - 127	2	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*15 - 122*
Nitrobenzene-d5	*60*		*19 - 130*
Terphenyl-d14	*91*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-621296/1-A
Matrix: Water
Analysis Batch: 621332

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621296

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/18/23 10:32	04/18/23 13:47	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/18/23 10:32	04/18/23 13:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*04/18/23 10:32*	*04/18/23 13:47*	*1*

Lab Sample ID: LCS 400-621296/2-A
Matrix: Water
Analysis Batch: 621332

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621296

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.129		ug/L		128	60 - 140		
1,2-D bromoethane			0.101	0.107		ug/L		107	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*51 - 149*

Lab Sample ID: LCSD 400-621296/3-A
Matrix: Water
Analysis Batch: 621332

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621296

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.129		ug/L		128	60 - 140	0	30
1,2-D bromoethane			0.101	0.113		ug/L		112	60 - 140	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*51 - 149*

Lab Sample ID: 400-235857-3 MS
Matrix: Water
Analysis Batch: 621332

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 621296

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane	ND		0.105	0.142		ug/L		135	10 - 150		
1,2-D bromoethane	ND		0.105	0.116		ug/L		111	39 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*51 - 149*

Lab Sample ID: 400-235857-3 MSD
Matrix: Water
Analysis Batch: 621332

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 621296

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane	ND		0.0999	0.136		ug/L		136	10 - 150	4	20
1,2-D bromoethane	ND		0.100	0.112		ug/L		112	39 - 150	4	20

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-235857-3 MSD
Matrix: Water
Analysis Batch: 621332

Client Sample ID: MW9-ROX-041023
Prep Type: Total/NA
Prep Batch: 621296

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	*98*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/10/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60697537 – 3.2.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):	SAMPLER NAME(S) (Print):	LAB USE ONLY
Melissa Remiger, Mary Massa, Brett Howell	M. Massa, T. Jenkins	

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0482	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

400-235857 COC

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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041023-8260	4/10/2023	0000	Water	2					2	X			
	TB-ROX-041023-8011	4/10/2023	0000	Water	2					2		X		
	MW9-ROX-041023	4/10/2023	0905	Water	6			2		8	X	X	X	X
	MW9-ROX-041023-MS	4/10/2023	0905	Water	6			2		8	X	X	X	X
	MW9-ROX-041023-MSD	4/10/2023	0905	Water	6			2		8	X	X	X	X
	MW27-ROX-041023	4/10/2023	1040	Water	6			2		8	X	X	X	X
	MW26-ROX-041023	4/10/2023	1220	Water	6			2		8	X	X	X	X
	MW16-ROX-041023	4/10/2023	1325	Water	6			2		8	X	X	X	X

4/10/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 9851, 5564 3932 9862, 5564 3932 9873	4/10/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4/11/23	921
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1599690, 1599691, 1599692, 1599693, 1599694, 1599695

0.0°C & 1.0°C & 5.8°C IR11

Page 54 of 56

4/21/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-235857-1

Login Number: 235857
List Number: 1
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 1.0°C, 5.8°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-235857-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-235945-1-Rev. 1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/30/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041123-8260	TB-ROX-041123-8011
MW6D-ROX-041123	MW6C-ROX-041123
MW6A-ROX-041123	MW6A-ROX-041123-DUP
MW6B-ROX-041123	ROST3MW-ROX-041123

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 diethyl phthalate detected in the method blank. LCS/LCSD recoveries for 2,2-dichloropropane and benzenethiol were outside evaluation criteria. The SVOC 2-fluorophenol surrogate recovery was outside criteria in sample MW6A-ROX-041123-DUP. Several VOC, SVOC, and VOC by 8011 MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in sample ROST3MW-ROX-041123. The continuing calibration verification (CCV) for hexachlorocyclopentadiene, and dibenz[a,h]acridine were outside evaluation criteria, biased low. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on April 25, 2023 to confirm PAH detects and non-detects in sample ROST3MW-ROX-041123.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-620825/1-A	SVOCs	Diethyl phthalate	0.431 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW6D-ROX-041123	SVOCs	Diethyl phthalate	-	**U**
MW6C-ROX-041123	SVOCs	Diethyl 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
LCS 400-621926/1003	VOCs	2,2-Dichloropropane	**138**	NA	52-135
LCS/LCSD 400-620825/25-A/26-A	SVOCs	Benzenethiol	**5/5**	15	10-120/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW6D-ROX-041123	SVOCs	Benzenethiol	**UJ**
MW6C-ROX-041123	SVOCs	Benzenethiol	**UJ**
MW6A-ROX-041123	SVOCs	Benzenethiol	**UJ**
MW6A-ROX-041123-DUP	SVOCs	Benzenethiol	**UJ**
MW6B-ROX-041123	SVOCs	Benzenethiol	**UJ**
ROST3MW-ROX-041123	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW6A-ROX-041123-DUP	SVOCs	2-Fluorophenol	**6**	13-113

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. No

qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample ROST3MW-ROX-041123 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
ROST3MW-ROX-041123 MS/MSD	VOCs	2-Chloroethyl vinyl ether	40/**9**	**128**	10-150/50
ROST3MW-ROX-041123 MS/MSD	VOCs	Chloromethane	**38/40**	5	49-148/31
ROST3MW-ROX-041123 MS/MSD	VOCs	Vinyl acetate	**153/165**	8	26-150/33
ROST3MW-ROX-041123 MS/MSD	SVOCs	3,3'-Dichlorobenzidine	117/**125**	7	10-120/58
ROST3MW-ROX-041123 MS/MSD	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**154/147**	**24**	10-150/20
ROST3MW-ROX-041123 MS/MSD	VOCs by 8011	1,2-Dibromoethane	108/106	**27**	39-150/20

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Analytical data associated with MS/MSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-041123	VOCs	2-Chloroethyl vinyl ether	**UJ**
ROST3MW-ROX-041123	VOCs	Chloromethane	**UJ**

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
MW6A-ROX-041123	MW6A-ROX-041123-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; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the initial calibration verification for bromomethane was outside evaluation criteria, biased low. The continuing calibration verification (CCV) for hexachlorocyclopentadiene, and dibenz[a,h]acridine was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-041123	VOCs	Bromomethane	**UJ**
MW6D-ROX-041123	VOCs	Bromomethane	**UJ**
MW6C-ROX-041123	VOCs	Bromomethane	**UJ**
MW6A-ROX-041123	VOCs	Bromomethane	**UJ**
MW6A-ROX-041123-DUP	VOCs	Bromomethane	**UJ**
MW6B-ROX-041123	VOCs	Bromomethane	**UJ**
ROST3MW-ROX-041123	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST3MW-ROX-041123	SVOCs	Dibenz[a,h]acridine	**UJ**
MW6D-ROX-041123	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6D-ROX-041123	SVOCs	Dibenz[a,h]acridine	**UJ**
MW6C-ROX-041123	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6C-ROX-041123	SVOCs	Dibenz[a,h]acridine	**UJ**
MW6A-ROX-041123	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6A-ROX-041123	SVOCs	Dibenz[a,h]acridine	**UJ**
MW6A-ROX-041123-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6A-ROX-041123-DUP	SVOCs	Dibenz[a,h]acridine	**UJ**
MW6B-ROX-041123	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6B-ROX-041123	SVOCs	Dibenz[a,h]acridine	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Generated 5/8/2023 12:54:52 PM Revision 1

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-235945-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Revision 1

Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 35
Surrogate Summary 36
Method Summary 38
Chronicle 39
QC Association 44
QC Sample Results 46
Chain of Custody 66
Receipt Checklists 67
Certification Summary 68

Job ID: 400-235945-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-235945-1

Comments
Revised Report
Report revised to confirm PAH detects for ROST3MW-ROX-041123 (400-235945-8). Original results found to be false postives.
Re-analysis results have been reported.
Supersedes report 4-25-2023.

Receipt
The samples were received on 4/12/2023 9:13 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4°C, 0.5°C and 0.9°C

GC/MS VOA
Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-613356 was outside method criteria for the following analyte(s): Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041123-8260 (400-235945-1), MW6D-ROX-041123 (400-235945-3), MW6C-ROX-041123 (400-235945-4) and ROST3MW-ROX-041123 (400-235945-8). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-621746 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8260B: The RPD for the matrix spike / matrix spike duplicate (MS/MSD) for 2-Chloroethyl vinyl ether was outside acceptance limits for analytical batch 400-621746 because the recovery was below the reporting limit for the MSD due to the acidic nature of the parent sample.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-621926 recovered above the upper control limit for Vinyl acetate. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-621926 recovered outside control limits for the following analyte: 2,2-Dichloropropane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: MW6A-ROX-041123 (400-235945-5), MW6A-ROX-041123-DUP (400-235945-6) and MW6B-ROX-041123 (400-235945-7). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-620825 and analytical batch 400-621130 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621130 recovered above the upper control limit for Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-235945-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621130 recovered outside acceptance criteria, low biased, for Dibenz[a,h]acridine and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The matrix spike duplicate (MSD) recoveries for preparation batch 400-620825 and analytical batch 400-621130 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW6A-ROX-041123-DUP (400-235945-6). These results have been reported and qualified.

Method 8270D: The method blank for preparation batch 400-620825 and analytical batch 400-621130 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-621246 recovered above the upper control limit for Dibenz(a,h)anthracene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The following sample ROST3MW-ROX-041123 (400-235945-8) was reanalyzed to verify the following: Benzo[a]anthracene and Benzo[b]fluoranthene. These analytes were found to be non detect therefore reported. ROST3MW-ROX-041123 (400-235945-8)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-621525 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The matrix spike (MS) recovery for preparation batch 400-621501 and analytical batch 400-621525 was outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8011: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-621501 and analytical batch 400-621525 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-235945-1	TB-ROX-041123-8260	Water	04/11/23 12:00	04/12/23 09:13
400-235945-2	TB-ROX-041123-8011	Water	04/11/23 12:00	04/12/23 09:13
400-235945-3	MW6D-ROX-041123	Water	04/11/23 09:15	04/12/23 09:13
400-235945-4	MW6C-ROX-041123	Water	04/11/23 10:15	04/12/23 09:13
400-235945-5	MW6A-ROX-041123	Water	04/11/23 11:15	04/12/23 09:13
400-235945-6	MW6A-ROX-041123-DUP	Water	04/11/23 11:15	04/12/23 09:13
400-235945-7	MW6B-ROX-041123	Water	04/11/23 12:10	04/12/23 09:13
400-235945-8	ROST3MW-ROX-041123	Water	04/11/23 13:35	04/12/23 09:13

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: TB-ROX-041123-8260 — Lab Sample ID: 400-235945-1

No Detections.

Client Sample ID: TB-ROX-041123-8011 — Lab Sample ID: 400-235945-2

No Detections.

Client Sample ID: MW6D-ROX-041123 — Lab Sample ID: 400-235945-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.80	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.38	J B U	9.7	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: MW6C-ROX-041123 — Lab Sample ID: 400-235945-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.25	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.23	J	1.0	0.22	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.74	J B U	10	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: MW6A-ROX-041123 — Lab Sample ID: 400-235945-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.38	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.38	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzoic acid	18	J	29	7.1	ug/L	1		8270D	Total/NA

Client Sample ID: MW6A-ROX-041123-DUP — Lab Sample ID: 400-235945-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.38	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.34	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW6B-ROX-041123 — Lab Sample ID: 400-235945-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.41	J	1.0	0.22	ug/L	1		8260B	Total/NA
Acenaphthylene	0.13	J	0.20	0.044	ug/L	1		8270D LL	Total/NA
Benzoic acid	18	J	30	7.2	ug/L	1		8270D	Total/NA

Client Sample ID: ROST3MW-ROX-041123 — Lab Sample ID: 400-235945-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.56	J	1.0	0.13	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: TB-ROX-041123-8260
Date Collected: 04/11/23 12:00
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/21/23 17:12	1
Acrolein	ND		20	3.3	ug/L			04/21/23 17:12	1
Acrylonitrile	ND		10	2.8	ug/L			04/21/23 17:12	1
Benzene	ND		1.0	0.13	ug/L			04/21/23 17:12	1
Bromobenzene	ND		1.0	0.54	ug/L			04/21/23 17:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/21/23 17:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/21/23 17:12	1
Bromoform	ND		5.0	0.25	ug/L			04/21/23 17:12	1
Bromomethane	ND		1.0	0.98	ug/L			04/21/23 17:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/21/23 17:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/21/23 17:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/21/23 17:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/21/23 17:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/21/23 17:12	1
Chloroethane	ND		1.0	0.76	ug/L			04/21/23 17:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/21/23 17:12	1
Chloroform	ND		1.0	1.0	ug/L			04/21/23 17:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/21/23 17:12	1
Chloromethane	ND		1.0	0.32	ug/L			04/21/23 17:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/21/23 17:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/21/23 17:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/21/23 17:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/21/23 17:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/21/23 17:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/21/23 17:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/21/23 17:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/21/23 17:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 17:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 17:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 17:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 17:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/21/23 17:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/21/23 17:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/21/23 17:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/21/23 17:12	1
2-Hexanone	ND		25	1.4	ug/L			04/21/23 17:12	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/21/23 17:12	1
Methylene bromide	ND		5.0	0.22	ug/L			04/21/23 17:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/21/23 17:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/21/23 17:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/21/23 17:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/21/23 17:12	1
Naphthalene	ND		5.0	3.0	ug/L			04/21/23 17:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/21/23 17:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/23 17:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/21/23 17:12	1
o-Xylene	ND		5.0	0.60	ug/L			04/21/23 17:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/21/23 17:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/21/23 17:12	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: TB-ROX-041123-8260
Date Collected: 04/11/23 12:00
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/21/23 17:12	1
Styrene	ND		1.0	1.0	ug/L			04/21/23 17:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/21/23 17:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/21/23 17:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/21/23 17:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/21/23 17:12	1
Toluene	ND		1.0	0.41	ug/L			04/21/23 17:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 17:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/21/23 17:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/21/23 17:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/21/23 17:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/21/23 17:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/21/23 17:12	1
Trichloroethene	ND		1.0	0.15	ug/L			04/21/23 17:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/21/23 17:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/21/23 17:12	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/21/23 17:12	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/21/23 17:12	1
Vinyl acetate	ND		25	0.93	ug/L			04/21/23 17:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/21/23 17:12	1
Xylenes, Total	ND		10	1.6	ug/L			04/21/23 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*04/21/23 17:12*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/21/23 17:12*	*1*
Toluene-d8 (Surr)	*88*		*64 - 132*		*04/21/23 17:12*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: TB-ROX-041123-8011
Date Collected: 04/11/23 12:00
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/19/23 12:33	04/19/23 18:49	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/19/23 12:33	04/19/23 18:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*51 - 149*	*04/19/23 12:33*	*04/19/23 18:49*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6D-ROX-041123

Date Collected: 04/11/23 09:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/21/23 19:06	1
Acrolein	ND		20	3.3	ug/L			04/21/23 19:06	1
Acrylonitrile	ND		10	2.8	ug/L			04/21/23 19:06	1
Benzene	**0.80**	**J**	1.0	0.13	ug/L			04/21/23 19:06	1
Bromobenzene	ND		1.0	0.54	ug/L			04/21/23 19:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/21/23 19:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/21/23 19:06	1
Bromoform	ND		5.0	0.25	ug/L			04/21/23 19:06	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/21/23 19:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/21/23 19:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/21/23 19:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/21/23 19:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/21/23 19:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/21/23 19:06	1
Chloroethane	ND		1.0	0.76	ug/L			04/21/23 19:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/21/23 19:06	1
Chloroform	ND		1.0	1.0	ug/L			04/21/23 19:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/21/23 19:06	1
Chloromethane	ND		1.0	0.32	ug/L			04/21/23 19:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/21/23 19:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/21/23 19:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/21/23 19:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/21/23 19:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/21/23 19:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/21/23 19:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/21/23 19:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/21/23 19:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 19:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 19:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 19:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 19:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/21/23 19:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/21/23 19:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/21/23 19:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/21/23 19:06	1
2-Hexanone	ND		25	1.4	ug/L			04/21/23 19:06	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/21/23 19:06	1
Methylene bromide	ND		5.0	0.22	ug/L			04/21/23 19:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/21/23 19:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/21/23 19:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/21/23 19:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/21/23 19:06	1
Naphthalene	ND		5.0	3.0	ug/L			04/21/23 19:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/21/23 19:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/23 19:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/21/23 19:06	1
o-Xylene	ND		5.0	0.60	ug/L			04/21/23 19:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/21/23 19:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/21/23 19:06	1

Client Sample ID: MW6D-ROX-041123
Date Collected: 04/11/23 09:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/21/23 19:06	1
Styrene	ND		1.0	1.0	ug/L			04/21/23 19:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/21/23 19:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/21/23 19:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/21/23 19:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/21/23 19:06	1
Toluene	ND		1.0	0.41	ug/L			04/21/23 19:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 19:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/21/23 19:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/21/23 19:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/21/23 19:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/21/23 19:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/21/23 19:06	1
Trichloroethene	ND		1.0	0.15	ug/L			04/21/23 19:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/21/23 19:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/21/23 19:06	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/21/23 19:06	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/21/23 19:06	1
Vinyl acetate	ND		25	0.93	ug/L			04/21/23 19:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/21/23 19:06	1
Xylenes, Total	ND		10	1.6	ug/L			04/21/23 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*04/21/23 19:06*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*04/21/23 19:06*	*1*
Toluene-d8 (Surr)	*88*		*64 - 132*		*04/21/23 19:06*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/14/23 08:21	04/18/23 16:46	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/14/23 08:21	04/18/23 16:46	1
Anthracene	ND		0.19	0.031	ug/L		04/14/23 08:21	04/18/23 16:46	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/14/23 08:21	04/18/23 16:46	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/14/23 08:21	04/18/23 16:46	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/14/23 08:21	04/18/23 16:46	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/14/23 08:21	04/18/23 16:46	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/14/23 08:21	04/18/23 16:46	1
Chrysene	ND		0.19	0.071	ug/L		04/14/23 08:21	04/18/23 16:46	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/14/23 08:21	04/18/23 16:46	1
Fluoranthene	ND		0.19	0.066	ug/L		04/14/23 08:21	04/18/23 16:46	1
Fluorene	ND		0.19	0.11	ug/L		04/14/23 08:21	04/18/23 16:46	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/14/23 08:21	04/18/23 16:46	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/14/23 08:21	04/18/23 16:46	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/14/23 08:21	04/18/23 16:46	1
Phenanthrene	ND		0.19	0.035	ug/L		04/14/23 08:21	04/18/23 16:46	1
Pyrene	ND		0.19	0.039	ug/L		04/14/23 08:21	04/18/23 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*04/14/23 08:21*	*04/18/23 16:46*	*1*
Nitrobenzene-d5	*107*		*19 - 130*	*04/14/23 08:21*	*04/18/23 16:46*	*1*

Client Sample ID: MW6D-ROX-041123
Date Collected: 04/11/23 09:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	132		33 - 138	04/14/23 08:21	04/18/23 16:46	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/14/23 08:21	04/17/23 17:41	1
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/14/23 08:21	04/17/23 17:41	1
Benzoic acid	ND		29	7.0	ug/L		04/14/23 08:21	04/17/23 17:41	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 17:41	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		04/14/23 08:21	04/17/23 17:41	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/14/23 08:21	04/17/23 17:41	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		04/14/23 08:21	04/17/23 17:41	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/14/23 08:21	04/17/23 17:41	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/14/23 08:21	04/17/23 17:41	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/14/23 08:21	04/17/23 17:41	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/14/23 08:21	04/17/23 17:41	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/14/23 08:21	04/17/23 17:41	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/14/23 08:21	04/17/23 17:41	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/14/23 08:21	04/17/23 17:41	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 17:41	1
Dibenz[a,h]acridine	ND	UJ	9.7	0.97	ug/L		04/14/23 08:21	04/17/23 17:41	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 17:41	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/14/23 08:21	04/17/23 17:41	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/14/23 08:21	04/17/23 17:41	1
Diethyl phthalate	**0.38**	**J B** U	9.7	0.23	ug/L		04/14/23 08:21	04/17/23 17:41	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 17:41	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 17:41	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/14/23 08:21	04/17/23 17:41	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		04/14/23 08:21	04/17/23 17:41	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/14/23 08:21	04/17/23 17:41	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/14/23 08:21	04/17/23 17:41	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/14/23 08:21	04/17/23 17:41	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 17:41	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 17:41	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 17:41	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 17:41	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/14/23 08:21	04/17/23 17:41	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/14/23 08:21	04/17/23 17:41	1
Indene	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 17:41	1
Isophorone	ND		9.7	0.14	ug/L		04/14/23 08:21	04/17/23 17:41	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/14/23 08:21	04/17/23 17:41	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/14/23 08:21	04/17/23 17:41	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/14/23 08:21	04/17/23 17:41	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/14/23 08:21	04/17/23 17:41	1
4-Nitroaniline	ND		9.7	1.4	ug/L		04/14/23 08:21	04/17/23 17:41	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/14/23 08:21	04/17/23 17:41	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/14/23 08:21	04/17/23 17:41	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/14/23 08:21	04/17/23 17:41	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 17:41	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6D-ROX-041123

Date Collected: 04/11/23 09:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/14/23 08:21	04/17/23 17:41	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/14/23 08:21	04/17/23 17:41	1
Pentachlorophenol	ND		19	1.4	ug/L		04/14/23 08:21	04/17/23 17:41	1
Phenol	ND		9.7	2.5	ug/L		04/14/23 08:21	04/17/23 17:41	1
Pyridine	ND		9.7	3.1	ug/L		04/14/23 08:21	04/17/23 17:41	1
Quinoline	ND		9.7	4.3	ug/L		04/14/23 08:21	04/17/23 17:41	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/14/23 08:21	04/17/23 17:41	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*04/14/23 08:21*	*04/17/23 17:41*	*1*
2-Fluorophenol	*24*		*13 - 113*	*04/14/23 08:21*	*04/17/23 17:41*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*04/14/23 08:21*	*04/17/23 17:41*	*1*
Phenol-d5	*63*		*17 - 127*	*04/14/23 08:21*	*04/17/23 17:41*	*1*
Terphenyl-d14	*96*		*44 - 149*	*04/14/23 08:21*	*04/17/23 17:41*	*1*
2,4,6-Tribromophenol	*76*		*26 - 150*	*04/14/23 08:21*	*04/17/23 17:41*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		04/19/23 12:33	04/19/23 19:09	1
1,2-D bromoethane	ND		0.021	0.015	ug/L		04/19/23 12:33	04/19/23 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*04/19/23 12:33*	*04/19/23 19:09*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6C-ROX-041123
Date Collected: 04/11/23 10:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/21/23 19:28	1
Acrolein	ND		20	3.3	ug/L			04/21/23 19:28	1
Acrylonitrile	ND		10	2.8	ug/L			04/21/23 19:28	1
Benzene	**0.25**	**J**	1.0	0.13	ug/L			04/21/23 19:28	1
Bromobenzene	ND		1.0	0.54	ug/L			04/21/23 19:28	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/21/23 19:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/21/23 19:28	1
Bromoform	ND		5.0	0.25	ug/L			04/21/23 19:28	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/21/23 19:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/21/23 19:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/21/23 19:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/21/23 19:28	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/21/23 19:28	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/21/23 19:28	1
Chloroethane	ND		1.0	0.76	ug/L			04/21/23 19:28	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/21/23 19:28	1
Chloroform	ND		1.0	1.0	ug/L			04/21/23 19:28	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/21/23 19:28	1
Chloromethane	ND		1.0	0.32	ug/L			04/21/23 19:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/21/23 19:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/21/23 19:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/21/23 19:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/21/23 19:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/21/23 19:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/21/23 19:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/21/23 19:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/21/23 19:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 19:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 19:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 19:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 19:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/21/23 19:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/21/23 19:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/21/23 19:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/21/23 19:28	1
2-Hexanone	ND		25	1.4	ug/L			04/21/23 19:28	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/21/23 19:28	1
Methylene bromide	ND		5.0	0.22	ug/L			04/21/23 19:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/21/23 19:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/21/23 19:28	1
Methyl tert-butyl ether	**0.23**	**J**	1.0	0.22	ug/L			04/21/23 19:28	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/21/23 19:28	1
Naphthalene	ND		5.0	3.0	ug/L			04/21/23 19:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/21/23 19:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/23 19:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/21/23 19:28	1
o-Xylene	ND		5.0	0.60	ug/L			04/21/23 19:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/21/23 19:28	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/21/23 19:28	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6C-ROX-041123
Date Collected: 04/11/23 10:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/21/23 19:28	1
Styrene	ND		1.0	1.0	ug/L			04/21/23 19:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/21/23 19:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/21/23 19:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/21/23 19:28	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/21/23 19:28	1
Toluene	ND		1.0	0.41	ug/L			04/21/23 19:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 19:28	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/21/23 19:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/21/23 19:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/21/23 19:28	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/21/23 19:28	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/21/23 19:28	1
Trichloroethene	ND		1.0	0.15	ug/L			04/21/23 19:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/21/23 19:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/21/23 19:28	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/21/23 19:28	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/21/23 19:28	1
Vinyl acetate	ND		25	0.93	ug/L			04/21/23 19:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/21/23 19:28	1
Xylenes, Total	ND		10	1.6	ug/L			04/21/23 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/21/23 19:28*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*04/21/23 19:28*	*1*
Toluene-d8 (Surr)	*88*		*64 - 132*		*04/21/23 19:28*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 17:04	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 17:04	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 17:04	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/14/23 08:21	04/18/23 17:04	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 17:04	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 17:04	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 17:04	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/14/23 08:21	04/18/23 17:04	1
Chrysene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 17:04	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/14/23 08:21	04/18/23 17:04	1
Fluoranthene	ND		0.20	0.068	ug/L		04/14/23 08:21	04/18/23 17:04	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 17:04	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/14/23 08:21	04/18/23 17:04	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 17:04	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/14/23 08:21	04/18/23 17:04	1
Phenanthrene	ND		0.20	0.036	ug/L		04/14/23 08:21	04/18/23 17:04	1
Pyrene	ND		0.20	0.040	ug/L		04/14/23 08:21	04/18/23 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*15 - 122*	*04/14/23 08:21*	*04/18/23 17:04*	*1*
Nitrobenzene-d5	*99*		*19 - 130*	*04/14/23 08:21*	*04/18/23 17:04*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6C-ROX-041123
Date Collected: 04/11/23 10:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	120		33 - 138	04/14/23 08:21	04/18/23 17:04	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/14/23 08:21	04/17/23 18:02	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		04/14/23 08:21	04/17/23 18:02	1
Benzoic acid	ND		30	7.3	ug/L		04/14/23 08:21	04/17/23 18:02	1
Benzyl alcohol	ND		10	2.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/14/23 08:21	04/17/23 18:02	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/14/23 08:21	04/17/23 18:02	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/14/23 08:21	04/17/23 18:02	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/14/23 08:21	04/17/23 18:02	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/14/23 08:21	04/17/23 18:02	1
4-Chloroaniline	ND		10	3.4	ug/L		04/14/23 08:21	04/17/23 18:02	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/14/23 08:21	04/17/23 18:02	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/14/23 08:21	04/17/23 18:02	1
2-Chlorophenol	ND		10	2.2	ug/L		04/14/23 08:21	04/17/23 18:02	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
Dibenz[a,h]acridine	ND	UJ	10	1.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
Dibenzofuran	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 18:02	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/14/23 08:21	04/17/23 18:02	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
Diethyl phthalate	**0.74**	**J B** U	10	0.24	ug/L		04/14/23 08:21	04/17/23 18:02	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 18:02	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 18:02	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/14/23 08:21	04/17/23 18:02	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/14/23 08:21	04/17/23 18:02	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/14/23 08:21	04/17/23 18:02	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/14/23 08:21	04/17/23 18:02	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/14/23 08:21	04/17/23 18:02	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 18:02	1
1,4-Dioxane	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 18:02	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/14/23 08:21	04/17/23 18:02	1
Hexachloroethane	ND		10	4.2	ug/L		04/14/23 08:21	04/17/23 18:02	1
Indene	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 18:02	1
Isophorone	ND		10	0.14	ug/L		04/14/23 08:21	04/17/23 18:02	1
2-Methylphenol	ND		10	1.8	ug/L		04/14/23 08:21	04/17/23 18:02	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/14/23 08:21	04/17/23 18:02	1
2-Nitroaniline	ND		10	2.2	ug/L		04/14/23 08:21	04/17/23 18:02	1
3-Nitroaniline	ND		10	1.8	ug/L		04/14/23 08:21	04/17/23 18:02	1
4-Nitroaniline	ND		10	1.5	ug/L		04/14/23 08:21	04/17/23 18:02	1
Nitrobenzene	ND		10	0.13	ug/L		04/14/23 08:21	04/17/23 18:02	1
2-Nitrophenol	ND		10	5.2	ug/L		04/14/23 08:21	04/17/23 18:02	1
4-Nitrophenol	ND		10	2.1	ug/L		04/14/23 08:21	04/17/23 18:02	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 18:02	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6C-ROX-041123
Date Collected: 04/11/23 10:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/14/23 08:21	04/17/23 18:02	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/14/23 08:21	04/17/23 18:02	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 18:02	1
Phenol	ND		10	2.6	ug/L		04/14/23 08:21	04/17/23 18:02	1
Pyridine	ND		10	3.2	ug/L		04/14/23 08:21	04/17/23 18:02	1
Quinoline	ND		10	4.5	ug/L		04/14/23 08:21	04/17/23 18:02	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/14/23 08:21	04/17/23 18:02	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 18:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*04/14/23 08:21*	*04/17/23 18:02*	*1*
2-Fluorophenol	*43*		*13 - 113*	*04/14/23 08:21*	*04/17/23 18:02*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*04/14/23 08:21*	*04/17/23 18:02*	*1*
Phenol-d5	*70*		*17 - 127*	*04/14/23 08:21*	*04/17/23 18:02*	*1*
Terphenyl-d14	*90*		*44 - 149*	*04/14/23 08:21*	*04/17/23 18:02*	*1*
2,4,6-Tribromophenol	*78*		*26 - 150*	*04/14/23 08:21*	*04/17/23 18:02*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.017	ug/L		04/19/23 12:33	04/19/23 19:30	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/19/23 12:33	04/19/23 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*51 - 149*	*04/19/23 12:33*	*04/19/23 19:30*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6A-ROX-041123
Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/23/23 11:01	1
Acrolein	ND		20	3.3	ug/L			04/23/23 11:01	1
Acrylonitrile	ND		10	2.8	ug/L			04/23/23 11:01	1
Benzene	**0.38**	**J**	1.0	0.13	ug/L			04/23/23 11:01	1
Bromobenzene	ND		1.0	0.54	ug/L			04/23/23 11:01	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/23/23 11:01	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/23/23 11:01	1
Bromoform	ND		5.0	0.25	ug/L			04/23/23 11:01	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/23/23 11:01	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/23/23 11:01	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/23/23 11:01	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/23/23 11:01	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/23/23 11:01	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/23/23 11:01	1
Chloroethane	ND		1.0	0.76	ug/L			04/23/23 11:01	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/23/23 11:01	1
Chloroform	ND		1.0	1.0	ug/L			04/23/23 11:01	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/23/23 11:01	1
Chloromethane	ND		1.0	0.32	ug/L			04/23/23 11:01	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/23/23 11:01	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/23/23 11:01	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/23/23 11:01	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/23/23 11:01	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/23/23 11:01	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/23/23 11:01	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/23/23 11:01	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/23/23 11:01	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 11:01	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 11:01	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 11:01	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/23/23 11:01	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/23/23 11:01	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/23/23 11:01	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/23/23 11:01	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/23/23 11:01	1
2-Hexanone	ND		25	1.4	ug/L			04/23/23 11:01	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/23/23 11:01	1
Methylene bromide	ND		5.0	0.22	ug/L			04/23/23 11:01	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/23/23 11:01	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/23/23 11:01	1
Methyl tert-butyl ether	**0.38**	**J**	1.0	0.22	ug/L			04/23/23 11:01	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/23/23 11:01	1
Naphthalene	ND		5.0	3.0	ug/L			04/23/23 11:01	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/23/23 11:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/23/23 11:01	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/23/23 11:01	1
o-Xylene	ND		5.0	0.60	ug/L			04/23/23 11:01	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/23/23 11:01	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/23/23 11:01	1

Client Sample ID: MW6A-ROX-041123
Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/23/23 11:01	1
Styrene	ND		1.0	1.0	ug/L			04/23/23 11:01	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/23/23 11:01	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/23/23 11:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/23/23 11:01	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/23/23 11:01	1
Toluene	ND		1.0	0.41	ug/L			04/23/23 11:01	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 11:01	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/23/23 11:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/23/23 11:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/23/23 11:01	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/23/23 11:01	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/23/23 11:01	1
Trichloroethene	ND		1.0	0.15	ug/L			04/23/23 11:01	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/23/23 11:01	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/23/23 11:01	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/23/23 11:01	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/23/23 11:01	1
Vinyl acetate	ND		25	0.93	ug/L			04/23/23 11:01	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/23/23 11:01	1
Xylenes, Total	ND		10	1.6	ug/L			04/23/23 11:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/23/23 11:01*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*04/23/23 11:01*	*1*
Toluene-d8 (Surr)	*88*		*64 - 132*		*04/23/23 11:01*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/14/23 08:21	04/18/23 17:21	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/14/23 08:21	04/18/23 17:21	1
Anthracene	ND		0.20	0.031	ug/L		04/14/23 08:21	04/18/23 17:21	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 17:21	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/14/23 08:21	04/18/23 17:21	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/14/23 08:21	04/18/23 17:21	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 17:21	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/14/23 08:21	04/18/23 17:21	1
Chrysene	ND		0.20	0.072	ug/L		04/14/23 08:21	04/18/23 17:21	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/14/23 08:21	04/18/23 17:21	1
Fluoranthene	ND		0.20	0.067	ug/L		04/14/23 08:21	04/18/23 17:21	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 17:21	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 17:21	1
1-Methylnaphthalene	ND		0.20	0.072	ug/L		04/14/23 08:21	04/18/23 17:21	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/14/23 08:21	04/18/23 17:21	1
Phenanthrene	ND		0.20	0.035	ug/L		04/14/23 08:21	04/18/23 17:21	1
Pyrene	ND		0.20	0.039	ug/L		04/14/23 08:21	04/18/23 17:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*15 - 122*	*04/14/23 08:21*	*04/18/23 17:21*	*1*
Nitrobenzene-d5	*103*		*19 - 130*	*04/14/23 08:21*	*04/18/23 17:21*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6A-ROX-041123
Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	105		33 - 138	04/14/23 08:21	04/18/23 17:21	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/14/23 08:21	04/17/23 18:24	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/14/23 08:21	04/17/23 18:24	1
Benzoic acid	**18**	**J**	29	7.1	ug/L		04/14/23 08:21	04/17/23 18:24	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/14/23 08:21	04/17/23 18:24	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/14/23 08:21	04/17/23 18:24	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/14/23 08:21	04/17/23 18:24	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/14/23 08:21	04/17/23 18:24	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/14/23 08:21	04/17/23 18:24	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/14/23 08:21	04/17/23 18:24	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/14/23 08:21	04/17/23 18:24	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/14/23 08:21	04/17/23 18:24	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/14/23 08:21	04/17/23 18:24	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/14/23 08:21	04/17/23 18:24	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/14/23 08:21	04/17/23 18:24	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/14/23 08:21	04/17/23 18:24	1
Dibenz[a,h]acridine	ND	UJ	9.8	0.98	ug/L		04/14/23 08:21	04/17/23 18:24	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 18:24	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		04/14/23 08:21	04/17/23 18:24	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/14/23 08:21	04/17/23 18:24	1
Diethyl phthalate	ND		9.8	0.23	ug/L		04/14/23 08:21	04/17/23 18:24	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/14/23 08:21	04/17/23 18:24	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 18:24	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/14/23 08:21	04/17/23 18:24	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/14/23 08:21	04/17/23 18:24	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/14/23 08:21	04/17/23 18:24	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/14/23 08:21	04/17/23 18:24	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/14/23 08:21	04/17/23 18:24	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 18:24	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/14/23 08:21	04/17/23 18:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/14/23 08:21	04/17/23 18:24	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 18:24	1
Hexachlorocyclopentadiene	ND	UJ	20	2.5	ug/L		04/14/23 08:21	04/17/23 18:24	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/14/23 08:21	04/17/23 18:24	1
Indene	ND		9.8	0.98	ug/L		04/14/23 08:21	04/17/23 18:24	1
Isophorone	ND		9.8	0.14	ug/L		04/14/23 08:21	04/17/23 18:24	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/14/23 08:21	04/17/23 18:24	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/14/23 08:21	04/17/23 18:24	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/14/23 08:21	04/17/23 18:24	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/14/23 08:21	04/17/23 18:24	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/14/23 08:21	04/17/23 18:24	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/14/23 08:21	04/17/23 18:24	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/14/23 08:21	04/17/23 18:24	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/14/23 08:21	04/17/23 18:24	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/14/23 08:21	04/17/23 18:24	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6A-ROX-041123
Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/14/23 08:21	04/17/23 18:24	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/14/23 08:21	04/17/23 18:24	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 18:24	1
Phenol	ND		9.8	2.5	ug/L		04/14/23 08:21	04/17/23 18:24	1
Pyridine	ND		9.8	3.1	ug/L		04/14/23 08:21	04/17/23 18:24	1
Quinoline	ND		9.8	4.4	ug/L		04/14/23 08:21	04/17/23 18:24	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/14/23 08:21	04/17/23 18:24	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/14/23 08:21	04/17/23 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*04/14/23 08:21*	*04/17/23 18:24*	*1*
2-Fluorophenol	*18*		*13 - 113*	*04/14/23 08:21*	*04/17/23 18:24*	*1*
Nitrobenzene-d5	*77*		*36 - 126*	*04/14/23 08:21*	*04/17/23 18:24*	*1*
Phenol-d5	*51*		*17 - 127*	*04/14/23 08:21*	*04/17/23 18:24*	*1*
Terphenyl-d14	*78*		*44 - 149*	*04/14/23 08:21*	*04/17/23 18:24*	*1*
2,4,6-Tribromophenol	*80*		*26 - 150*	*04/14/23 08:21*	*04/17/23 18:24*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/19/23 12:33	04/19/23 19:50	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/19/23 12:33	04/19/23 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*51 - 149*	*04/19/23 12:33*	*04/19/23 19:50*	*1*

Client Sample ID: MW6A-ROX-041123-DUP

Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-6

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/23/23 11:23	1
Acrolein	ND		20	3.3	ug/L			04/23/23 11:23	1
Acrylonitrile	ND		10	2.8	ug/L			04/23/23 11:23	1
Benzene	**0.38**	**J**	1.0	0.13	ug/L			04/23/23 11:23	1
Bromobenzene	ND		1.0	0.54	ug/L			04/23/23 11:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/23/23 11:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/23/23 11:23	1
Bromoform	ND		5.0	0.25	ug/L			04/23/23 11:23	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/23/23 11:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/23/23 11:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/23/23 11:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/23/23 11:23	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/23/23 11:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/23/23 11:23	1
Chloroethane	ND		1.0	0.76	ug/L			04/23/23 11:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/23/23 11:23	1
Chloroform	ND		1.0	1.0	ug/L			04/23/23 11:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/23/23 11:23	1
Chloromethane	ND		1.0	0.32	ug/L			04/23/23 11:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/23/23 11:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/23/23 11:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/23/23 11:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/23/23 11:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/23/23 11:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/23/23 11:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/23/23 11:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/23/23 11:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 11:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 11:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 11:23	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/23/23 11:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/23/23 11:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/23/23 11:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/23/23 11:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/23/23 11:23	1
2-Hexanone	ND		25	1.4	ug/L			04/23/23 11:23	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/23/23 11:23	1
Methylene bromide	ND		5.0	0.22	ug/L			04/23/23 11:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/23/23 11:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/23/23 11:23	1
Methyl tert-butyl ether	**0.34**	**J**	1.0	0.22	ug/L			04/23/23 11:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/23/23 11:23	1
Naphthalene	ND		5.0	3.0	ug/L			04/23/23 11:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/23/23 11:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/23/23 11:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/23/23 11:23	1
o-Xylene	ND		5.0	0.60	ug/L			04/23/23 11:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/23/23 11:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/23/23 11:23	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6A-ROX-041123-DUP

Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-6

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/23/23 11:23	1
Styrene	ND		1.0	1.0	ug/L			04/23/23 11:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/23/23 11:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/23/23 11:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/23/23 11:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/23/23 11:23	1
Toluene	ND		1.0	0.41	ug/L			04/23/23 11:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 11:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/23/23 11:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/23/23 11:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/23/23 11:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/23/23 11:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/23/23 11:23	1
Trichloroethene	ND		1.0	0.15	ug/L			04/23/23 11:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/23/23 11:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/23/23 11:23	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/23/23 11:23	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/23/23 11:23	1
Vinyl acetate	ND		25	0.93	ug/L			04/23/23 11:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/23/23 11:23	1
Xylenes, Total	ND		10	1.6	ug/L			04/23/23 11:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/23/23 11:23*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*04/23/23 11:23*	*1*
Toluene-d8 (Surr)	*87*		*64 - 132*		*04/23/23 11:23*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 17:39	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 17:39	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 17:39	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/14/23 08:21	04/18/23 17:39	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 17:39	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 17:39	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 17:39	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/14/23 08:21	04/18/23 17:39	1
Chrysene	ND		0.20	0.073	ug/L		04/14/23 08:21	04/18/23 17:39	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/14/23 08:21	04/18/23 17:39	1
Fluoranthene	ND		0.20	0.067	ug/L		04/14/23 08:21	04/18/23 17:39	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 17:39	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/14/23 08:21	04/18/23 17:39	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/14/23 08:21	04/18/23 17:39	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/14/23 08:21	04/18/23 17:39	1
Phenanthrene	ND		0.20	0.036	ug/L		04/14/23 08:21	04/18/23 17:39	1
Pyrene	ND		0.20	0.040	ug/L		04/14/23 08:21	04/18/23 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*15 - 122*	*04/14/23 08:21*	*04/18/23 17:39*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/14/23 08:21*	*04/18/23 17:39*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6A-ROX-041123-DUP
Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	107		33 - 138	04/14/23 08:21	04/18/23 17:39	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		04/14/23 08:21	04/17/23 18:46	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/14/23 08:21	04/17/23 18:46	1
Benzoic acid	ND		30	7.2	ug/L		04/14/23 08:21	04/17/23 18:46	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/14/23 08:21	04/17/23 18:46	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/14/23 08:21	04/17/23 18:46	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/14/23 08:21	04/17/23 18:46	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/14/23 08:21	04/17/23 18:46	1
Bis(2-ethylhexyl) phthalate	ND		9.9	5.0	ug/L		04/14/23 08:21	04/17/23 18:46	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/14/23 08:21	04/17/23 18:46	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/14/23 08:21	04/17/23 18:46	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/14/23 08:21	04/17/23 18:46	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		04/14/23 08:21	04/17/23 18:46	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/14/23 08:21	04/17/23 18:46	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/14/23 08:21	04/17/23 18:46	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/14/23 08:21	04/17/23 18:46	1
Dibenz[a,h]acridine	ND	UJ	9.9	0.99	ug/L		04/14/23 08:21	04/17/23 18:46	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 18:46	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/14/23 08:21	04/17/23 18:46	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/14/23 08:21	04/17/23 18:46	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/14/23 08:21	04/17/23 18:46	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 18:46	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 18:46	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/14/23 08:21	04/17/23 18:46	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/14/23 08:21	04/17/23 18:46	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/14/23 08:21	04/17/23 18:46	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/14/23 08:21	04/17/23 18:46	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/14/23 08:21	04/17/23 18:46	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 18:46	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 18:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 18:46	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 18:46	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/14/23 08:21	04/17/23 18:46	1
Hexachloroethane	ND		9.9	4.2	ug/L		04/14/23 08:21	04/17/23 18:46	1
Indene	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 18:46	1
Isophorone	ND		9.9	0.14	ug/L		04/14/23 08:21	04/17/23 18:46	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/14/23 08:21	04/17/23 18:46	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/14/23 08:21	04/17/23 18:46	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/14/23 08:21	04/17/23 18:46	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/14/23 08:21	04/17/23 18:46	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/14/23 08:21	04/17/23 18:46	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/14/23 08:21	04/17/23 18:46	1
2-Nitrophenol	ND		9.9	5.2	ug/L		04/14/23 08:21	04/17/23 18:46	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/14/23 08:21	04/17/23 18:46	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 18:46	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6A-ROX-041123-DUP

Date Collected: 04/11/23 11:15
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-6

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/14/23 08:21	04/17/23 18:46	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/14/23 08:21	04/17/23 18:46	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 18:46	1
Phenol	ND		9.9	2.6	ug/L		04/14/23 08:21	04/17/23 18:46	1
Pyridine	ND		9.9	3.2	ug/L		04/14/23 08:21	04/17/23 18:46	1
Quinoline	ND		9.9	4.5	ug/L		04/14/23 08:21	04/17/23 18:46	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/14/23 08:21	04/17/23 18:46	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*04/14/23 08:21*	*04/17/23 18:46*	*1*
2-Fluorophenol	*6*	*S1-*	*13 - 113*	*04/14/23 08:21*	*04/17/23 18:46*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*04/14/23 08:21*	*04/17/23 18:46*	*1*
Phenol-d5	*38*		*17 - 127*	*04/14/23 08:21*	*04/17/23 18:46*	*1*
Terphenyl-d14	*76*		*44 - 149*	*04/14/23 08:21*	*04/17/23 18:46*	*1*
2,4,6-Tribromophenol	*80*		*26 - 150*	*04/14/23 08:21*	*04/17/23 18:46*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/19/23 12:33	04/19/23 20:11	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/19/23 12:33	04/19/23 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*51 - 149*	*04/19/23 12:33*	*04/19/23 20:11*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6B-ROX-041123
Date Collected: 04/11/23 12:10
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/23/23 11:46	1
Acrolein	ND		20	3.3	ug/L			04/23/23 11:46	1
Acrylonitrile	ND		10	2.8	ug/L			04/23/23 11:46	1
Benzene	ND		1.0	0.13	ug/L			04/23/23 11:46	1
Bromobenzene	ND		1.0	0.54	ug/L			04/23/23 11:46	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/23/23 11:46	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/23/23 11:46	1
Bromoform	ND		5.0	0.25	ug/L			04/23/23 11:46	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/23/23 11:46	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/23/23 11:46	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/23/23 11:46	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/23/23 11:46	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/23/23 11:46	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/23/23 11:46	1
Chloroethane	ND		1.0	0.76	ug/L			04/23/23 11:46	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/23/23 11:46	1
Chloroform	ND		1.0	1.0	ug/L			04/23/23 11:46	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/23/23 11:46	1
Chloromethane	ND		1.0	0.32	ug/L			04/23/23 11:46	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/23/23 11:46	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/23/23 11:46	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/23/23 11:46	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/23/23 11:46	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/23/23 11:46	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/23/23 11:46	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/23/23 11:46	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/23/23 11:46	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 11:46	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 11:46	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 11:46	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/23/23 11:46	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/23/23 11:46	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/23/23 11:46	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/23/23 11:46	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/23/23 11:46	1
2-Hexanone	ND		25	1.4	ug/L			04/23/23 11:46	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/23/23 11:46	1
Methylene bromide	ND		5.0	0.22	ug/L			04/23/23 11:46	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/23/23 11:46	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/23/23 11:46	1
Methyl tert-butyl ether	**0.41**	**J**	1.0	0.22	ug/L			04/23/23 11:46	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/23/23 11:46	1
Naphthalene	ND		5.0	3.0	ug/L			04/23/23 11:46	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/23/23 11:46	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/23/23 11:46	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/23/23 11:46	1
o-Xylene	ND		5.0	0.60	ug/L			04/23/23 11:46	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/23/23 11:46	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/23/23 11:46	1

Client Sample ID: MW6B-ROX-041123
Date Collected: 04/11/23 12:10
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/23/23 11:46	1
Styrene	ND		1.0	1.0	ug/L			04/23/23 11:46	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/23/23 11:46	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/23/23 11:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/23/23 11:46	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/23/23 11:46	1
Toluene	ND		1.0	0.41	ug/L			04/23/23 11:46	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 11:46	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/23/23 11:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/23/23 11:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/23/23 11:46	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/23/23 11:46	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/23/23 11:46	1
Trichloroethene	ND		1.0	0.15	ug/L			04/23/23 11:46	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/23/23 11:46	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/23/23 11:46	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/23/23 11:46	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/23/23 11:46	1
Vinyl acetate	ND		25	0.93	ug/L			04/23/23 11:46	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/23/23 11:46	1
Xylenes, Total	ND		10	1.6	ug/L			04/23/23 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/23/23 11:46*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*04/23/23 11:46*	*1*
Toluene-d8 (Surr)	*87*		*64 - 132*		*04/23/23 11:46*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 17:56	1
Acenaphthylene	**0.13**	**J**	0.20	0.044	ug/L		04/14/23 08:21	04/18/23 17:56	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 17:56	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 17:56	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/14/23 08:21	04/18/23 17:56	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 17:56	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 17:56	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/14/23 08:21	04/18/23 17:56	1
Chrysene	ND		0.20	0.073	ug/L		04/14/23 08:21	04/18/23 17:56	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/14/23 08:21	04/18/23 17:56	1
Fluoranthene	ND		0.20	0.067	ug/L		04/14/23 08:21	04/18/23 17:56	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 17:56	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 17:56	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/14/23 08:21	04/18/23 17:56	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/14/23 08:21	04/18/23 17:56	1
Phenanthrene	ND		0.20	0.035	ug/L		04/14/23 08:21	04/18/23 17:56	1
Pyrene	ND		0.20	0.039	ug/L		04/14/23 08:21	04/18/23 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*15 - 122*	*04/14/23 08:21*	*04/18/23 17:56*	*1*
Nitrobenzene-d5	*88*		*19 - 130*	*04/14/23 08:21*	*04/18/23 17:56*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6B-ROX-041123
Date Collected: 04/11/23 12:10
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	105		33 - 138	04/14/23 08:21	04/18/23 17:56	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/14/23 08:21	04/17/23 19:07	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/14/23 08:21	04/17/23 19:07	1
Benzoic acid	**18**	**J**	30	7.2	ug/L		04/14/23 08:21	04/17/23 19:07	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/14/23 08:21	04/17/23 19:07	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/14/23 08:21	04/17/23 19:07	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/14/23 08:21	04/17/23 19:07	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/14/23 08:21	04/17/23 19:07	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/14/23 08:21	04/17/23 19:07	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/14/23 08:21	04/17/23 19:07	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/14/23 08:21	04/17/23 19:07	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/14/23 08:21	04/17/23 19:07	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/14/23 08:21	04/17/23 19:07	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/14/23 08:21	04/17/23 19:07	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/14/23 08:21	04/17/23 19:07	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/14/23 08:21	04/17/23 19:07	1
Dibenz[a,h]acridine	ND	UJ	9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:07	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:07	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/14/23 08:21	04/17/23 19:07	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/14/23 08:21	04/17/23 19:07	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/14/23 08:21	04/17/23 19:07	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 19:07	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:07	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/14/23 08:21	04/17/23 19:07	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/14/23 08:21	04/17/23 19:07	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/14/23 08:21	04/17/23 19:07	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/14/23 08:21	04/17/23 19:07	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/14/23 08:21	04/17/23 19:07	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:07	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:07	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:07	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/14/23 08:21	04/17/23 19:07	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/14/23 08:21	04/17/23 19:07	1
Indene	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:07	1
Isophorone	ND		9.9	0.14	ug/L		04/14/23 08:21	04/17/23 19:07	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/14/23 08:21	04/17/23 19:07	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/14/23 08:21	04/17/23 19:07	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/14/23 08:21	04/17/23 19:07	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/14/23 08:21	04/17/23 19:07	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/14/23 08:21	04/17/23 19:07	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/14/23 08:21	04/17/23 19:07	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/14/23 08:21	04/17/23 19:07	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/14/23 08:21	04/17/23 19:07	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 19:07	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6B-ROX-041123
Date Collected: 04/11/23 12:10
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-7
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/14/23 08:21	04/17/23 19:07	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/14/23 08:21	04/17/23 19:07	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 19:07	1
Phenol	ND		9.9	2.6	ug/L		04/14/23 08:21	04/17/23 19:07	1
Pyridine	ND		9.9	3.2	ug/L		04/14/23 08:21	04/17/23 19:07	1
Quinoline	ND		9.9	4.4	ug/L		04/14/23 08:21	04/17/23 19:07	1
2,4,5-Trichlorophenol	ND		9.9	3.6	ug/L		04/14/23 08:21	04/17/23 19:07	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*04/14/23 08:21*	*04/17/23 19:07*	*1*
2-Fluorophenol	*24*		*13 - 113*	*04/14/23 08:21*	*04/17/23 19:07*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*04/14/23 08:21*	*04/17/23 19:07*	*1*
Phenol-d5	*54*		*17 - 127*	*04/14/23 08:21*	*04/17/23 19:07*	*1*
Terphenyl-d14	*83*		*44 - 149*	*04/14/23 08:21*	*04/17/23 19:07*	*1*
2,4,6-Tribromophenol	*74*		*26 - 150*	*04/14/23 08:21*	*04/17/23 19:07*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.034	0.019	ug/L		04/19/23 12:33	04/19/23 20:31	1
1,2-D bromoethane	ND		0.023	0.017	ug/L		04/19/23 12:33	04/19/23 20:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*78*		*51 - 149*	*04/19/23 12:33*	*04/19/23 20:31*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: ROST3MW-ROX-041123

Date Collected: 04/11/23 13:35
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-8

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/21/23 17:57	1
Acrolein	ND		20	3.3	ug/L			04/21/23 17:57	1
Acrylonitrile	ND		10	2.8	ug/L			04/21/23 17:57	1
Benzene	**0.56**	**J**	1.0	0.13	ug/L			04/21/23 17:57	1
Bromobenzene	ND		1.0	0.54	ug/L			04/21/23 17:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/21/23 17:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/21/23 17:57	1
Bromoform	ND		5.0	0.25	ug/L			04/21/23 17:57	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/21/23 17:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/21/23 17:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/21/23 17:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/21/23 17:57	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/21/23 17:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/21/23 17:57	1
Chloroethane	ND		1.0	0.76	ug/L			04/21/23 17:57	1
2-Chloroethyl vinyl ether	ND	F2 F1 UJ	5.0	2.0	ug/L			04/21/23 17:57	1
Chloroform	ND		1.0	1.0	ug/L			04/21/23 17:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/21/23 17:57	1
Chloromethane	ND	F1 UJ	1.0	0.32	ug/L			04/21/23 17:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/21/23 17:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/21/23 17:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/21/23 17:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/21/23 17:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/21/23 17:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/21/23 17:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/21/23 17:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/21/23 17:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 17:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 17:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 17:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 17:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/21/23 17:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/21/23 17:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/21/23 17:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/21/23 17:57	1
2-Hexanone	ND		25	1.4	ug/L			04/21/23 17:57	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/21/23 17:57	1
Methylene bromide	ND		5.0	0.22	ug/L			04/21/23 17:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/21/23 17:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/21/23 17:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/21/23 17:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/21/23 17:57	1
Naphthalene	ND		5.0	3.0	ug/L			04/21/23 17:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/21/23 17:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/23 17:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/21/23 17:57	1
o-Xylene	ND		5.0	0.60	ug/L			04/21/23 17:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/21/23 17:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/21/23 17:57	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: ROST3MW-ROX-041123
Date Collected: 04/11/23 13:35
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-8
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/21/23 17:57	1
Styrene	ND		1.0	1.0	ug/L			04/21/23 17:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/21/23 17:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/21/23 17:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/21/23 17:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/21/23 17:57	1
Toluene	ND		1.0	0.41	ug/L			04/21/23 17:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 17:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/21/23 17:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/21/23 17:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/21/23 17:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/21/23 17:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/21/23 17:57	1
Trichloroethene	ND		1.0	0.15	ug/L			04/21/23 17:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/21/23 17:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/21/23 17:57	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/21/23 17:57	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/21/23 17:57	1
Vinyl acetate	ND	F1	25	0.93	ug/L			04/21/23 17:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/21/23 17:57	1
Xylenes, Total	ND		10	1.6	ug/L			04/21/23 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*04/21/23 17:57*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/21/23 17:57*	*1*
Toluene-d8 (Surr)	*89*		*64 - 132*		*04/21/23 17:57*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/14/23 08:21	04/25/23 14:59	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/14/23 08:21	04/25/23 14:59	1
Anthracene	ND		0.20	0.031	ug/L		04/14/23 08:21	04/25/23 14:59	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/25/23 14:59	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/14/23 08:21	04/25/23 14:59	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/14/23 08:21	04/25/23 14:59	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/25/23 14:59	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/14/23 08:21	04/25/23 14:59	1
Chrysene	ND		0.20	0.072	ug/L		04/14/23 08:21	04/25/23 14:59	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/14/23 08:21	04/25/23 14:59	1
Fluoranthene	ND		0.20	0.066	ug/L		04/14/23 08:21	04/25/23 14:59	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/25/23 14:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/25/23 14:59	1
1-Methylnaphthalene	ND		0.20	0.072	ug/L		04/14/23 08:21	04/25/23 14:59	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/14/23 08:21	04/25/23 14:59	1
Phenanthrene	ND		0.20	0.035	ug/L		04/14/23 08:21	04/25/23 14:59	1
Pyrene	ND		0.20	0.039	ug/L		04/14/23 08:21	04/25/23 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*15 - 122*	*04/14/23 08:21*	*04/25/23 14:59*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*04/14/23 08:21*	*04/25/23 14:59*	*1*

Client Sample ID: ROST3MW-ROX-041123
Date Collected: 04/11/23 13:35
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-8
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*128*		*33 - 138*	*04/14/23 08:21*	*04/25/23 14:59*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/14/23 08:21	04/17/23 17:19	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/14/23 08:21	04/17/23 17:19	1
Benzoic acid	ND		29	7.1	ug/L		04/14/23 08:21	04/17/23 17:19	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/14/23 08:21	04/17/23 17:19	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/14/23 08:21	04/17/23 17:19	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/14/23 08:21	04/17/23 17:19	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/14/23 08:21	04/17/23 17:19	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/14/23 08:21	04/17/23 17:19	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/14/23 08:21	04/17/23 17:19	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/14/23 08:21	04/17/23 17:19	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/14/23 08:21	04/17/23 17:19	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/14/23 08:21	04/17/23 17:19	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/14/23 08:21	04/17/23 17:19	1
2-Chlorophenol	ND		9.8	2.1	ug/L		04/14/23 08:21	04/17/23 17:19	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/14/23 08:21	04/17/23 17:19	1
Dibenz[a,h]acridine	ND	UJ	9.8	0.98	ug/L		04/14/23 08:21	04/17/23 17:19	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 17:19	1
3,3'-Dichlorobenzidine	ND	F1	9.8	2.5	ug/L		04/14/23 08:21	04/17/23 17:19	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/14/23 08:21	04/17/23 17:19	1
Diethyl phthalate	ND		9.8	0.23	ug/L		04/14/23 08:21	04/17/23 17:19	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/14/23 08:21	04/17/23 17:19	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 17:19	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/14/23 08:21	04/17/23 17:19	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/14/23 08:21	04/17/23 17:19	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/14/23 08:21	04/17/23 17:19	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/14/23 08:21	04/17/23 17:19	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/14/23 08:21	04/17/23 17:19	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 17:19	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/14/23 08:21	04/17/23 17:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/14/23 08:21	04/17/23 17:19	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/14/23 08:21	04/17/23 17:19	1
Hexachlorocyclopentadiene	ND	UJ	20	2.5	ug/L		04/14/23 08:21	04/17/23 17:19	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/14/23 08:21	04/17/23 17:19	1
Indene	ND		9.8	0.98	ug/L		04/14/23 08:21	04/17/23 17:19	1
Isophorone	ND		9.8	0.14	ug/L		04/14/23 08:21	04/17/23 17:19	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/14/23 08:21	04/17/23 17:19	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/14/23 08:21	04/17/23 17:19	1
2-Nitroaniline	ND		9.8	2.1	ug/L		04/14/23 08:21	04/17/23 17:19	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/14/23 08:21	04/17/23 17:19	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/14/23 08:21	04/17/23 17:19	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/14/23 08:21	04/17/23 17:19	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/14/23 08:21	04/17/23 17:19	1
4-Nitrophenol	ND		9.8	2.0	ug/L		04/14/23 08:21	04/17/23 17:19	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/14/23 08:21	04/17/23 17:19	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: ROST3MW-ROX-041123

Lab Sample ID: 400-235945-8

Date Collected: 04/11/23 13:35

Matrix: Water

Date Received: 04/12/23 09:13

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/14/23 08:21	04/17/23 17:19	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/14/23 08:21	04/17/23 17:19	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 17:19	1
Phenol	ND		9.8	2.5	ug/L		04/14/23 08:21	04/17/23 17:19	1
Pyridine	ND		9.8	3.1	ug/L		04/14/23 08:21	04/17/23 17:19	1
Quinoline	ND		9.8	4.4	ug/L		04/14/23 08:21	04/17/23 17:19	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/14/23 08:21	04/17/23 17:19	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/14/23 08:21	04/17/23 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*04/14/23 08:21*	*04/17/23 17:19*	*1*
2-Fluorophenol	*41*		*13 - 113*	*04/14/23 08:21*	*04/17/23 17:19*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*04/14/23 08:21*	*04/17/23 17:19*	*1*
Phenol-d5	*67*		*17 - 127*	*04/14/23 08:21*	*04/17/23 17:19*	*1*
Terphenyl-d14	*85*		*44 - 149*	*04/14/23 08:21*	*04/17/23 17:19*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*04/14/23 08:21*	*04/17/23 17:19*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	F1 F2	0.030	0.017	ug/L		04/19/23 12:33	04/19/23 20:52	1
1,2-D bromoethane	ND	F2	0.020	0.015	ug/L		04/19/23 12:33	04/19/23 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*04/19/23 12:33*	*04/19/23 20:52*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-235945-1	TB-ROX-041123-8260	101	104	88
400-235945-3	MW6D-ROX-041123	101	106	88
400-235945-4	MW6C-ROX-041123	94	105	88
400-235945-5	MW6A-ROX-041123	108	113	88
400-235945-6	MW6A-ROX-041123-DUP	107	113	87
400-235945-7	MW6B-ROX-041123	107	113	87
400-235945-8	ROST3MW-ROX-041123	103	104	89
400-235945-8 MS	ROST3MW-ROX-041123	105	102	87
400-235945-8 MSD	ROST3MW-ROX-041123	103	106	87
LCS 400-621746/1002	Lab Control Sample	107	101	89
LCS 400-621926/1003	Lab Control Sample	110	105	89
MB 400-621746/4	Method Blank	100	104	89
MB 400-621926/5	Method Blank	105	109	88

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-235945-3	MW6D-ROX-041123	85	24	84	63	96	76
400-235945-4	MW6C-ROX-041123	84	43	82	70	90	78
400-235945-5	MW6A-ROX-041123	79	18	77	51	78	80
400-235945-6	MW6A-ROX-041123-DUP	78	6 S1-	72	38	76	80
400-235945-7	MW6B-ROX-041123	74	24	73	54	83	74
400-235945-8	ROST3MW-ROX-041123	79	41	81	67	85	72
400-235945-8 MS	ROST3MW-ROX-041123	85	54	80	81	87	87
400-235945-8 MSD	ROST3MW-ROX-041123	92	31	85	74	96	94
LCS 400-620825/25-A	Lab Control Sample	83	32	83	64	97	61
LCS 400-620825/2-A	Lab Control Sample	89	32	83	67	94	86
LCSD 400-620825/26-A	Lab Control Sample Dup	88	38	85	71	99	38
MB 400-620825/1-A	Method Blank	88	13	88	58	100	43

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-235945-3	MW6D-ROX-041123	113	107	132
400-235945-4	MW6C-ROX-041123	102	99	120
400-235945-5	MW6A-ROX-041123	97	103	105
400-235945-6	MW6A-ROX-041123-DUP	97	94	107
400-235945-7	MW6B-ROX-041123	96	88	105
400-235945-8	ROST3MW-ROX-041123	96	93	128
400-235945-8 MS	ROST3MW-ROX-041123	89	83	99
400-235945-8 MSD	ROST3MW-ROX-041123	84	86	94
LCS 400-620825/2-A	Lab Control Sample	87	78	94
MB 400-620825/1-A	Method Blank	110	108	134

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-235945-2	TB-ROX-041123-8011	91
400-235945-3	MW6D-ROX-041123	95
400-235945-4	MW6C-ROX-041123	97
400-235945-5	MW6A-ROX-041123	89
400-235945-6	MW6A-ROX-041123-DUP	100
400-235945-7	MW6B-ROX-041123	78
400-235945-8	ROST3MW-ROX-041123	95
400-235945-8 MS	ROST3MW-ROX-041123	93
400-235945-8 MSD	ROST3MW-ROX-041123	96
LCS 400-621501/2-A	Lab Control Sample	81
LCSD 400-621501/3-A	Lab Control Sample Dup	88
MB 400-621501/1-A	Method Blank	77

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: TB-ROX-041123-8260
Lab Sample ID: 400-235945-1
Date Collected: 04/11/23 12:00
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 17:12	WPD	EET PEN

Client Sample ID: TB-ROX-041123-8011
Lab Sample ID: 400-235945-2
Date Collected: 04/11/23 12:00
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.9 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 18:49	PG	EET PEN

Client Sample ID: MW6D-ROX-041123
Lab Sample ID: 400-235945-3
Date Collected: 04/11/23 09:15
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 19:06	WPD	EET PEN
Total/NA	Prep	3520C			259 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 17:41	S1B	EET PEN
Total/NA	Prep	3520C			259 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 16:46	PP1	EET PEN
Total/NA	Prep	8011			33.9 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 19:09	PG	EET PEN

Client Sample ID: MW6C-ROX-041123
Lab Sample ID: 400-235945-4
Date Collected: 04/11/23 10:15
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 19:28	WPD	EET PEN
Total/NA	Prep	3520C			250.8 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 18:02	S1B	EET PEN
Total/NA	Prep	3520C			250.8 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 17:04	PP1	EET PEN
Total/NA	Prep	8011			34.3 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 19:30	PG	EET PEN

Client Sample ID: MW6A-ROX-041123
Lab Sample ID: 400-235945-5
Date Collected: 04/11/23 11:15
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621926	04/23/23 11:01	WPD	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 18:24	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: MW6A-ROX-041123

Lab Sample ID: 400-235945-5
Date Collected: 04/11/23 11:15
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			255.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 17:21	PP1	EET PEN
Total/NA	Prep	8011			34.5 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 19:50	PG	EET PEN

Client Sample ID: MW6A-ROX-041123-DUP

Lab Sample ID: 400-235945-6
Date Collected: 04/11/23 11:15
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621926	04/23/23 11:23	WPD	EET PEN
Total/NA	Prep	3520C			252.2 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 18:46	S1B	EET PEN
Total/NA	Prep	3520C			252.2 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 17:39	PP1	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 20:11	PG	EET PEN

Client Sample ID: MW6B-ROX-041123

Lab Sample ID: 400-235945-7
Date Collected: 04/11/23 12:10
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621926	04/23/23 11:46	WPD	EET PEN
Total/NA	Prep	3520C			253.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 19:07	S1B	EET PEN
Total/NA	Prep	3520C			253.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 17:56	PP1	EET PEN
Total/NA	Prep	8011			31.1 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 20:31	PG	EET PEN

Client Sample ID: ROST3MW-ROX-041123

Lab Sample ID: 400-235945-8
Date Collected: 04/11/23 13:35
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 17:57	WPD	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 17:19	S1B	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 14:59	S1B	EET PEN
Total/NA	Prep	8011			34.6 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 20:52	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-620825/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 15:09	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 15:20	PP1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621501/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 14:43	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621746/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 14:59	WPD	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621926/5
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621926	04/23/23 09:30	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620825/25-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 15:31	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620825/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 16:14	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621246	04/18/23 15:37	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621501/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 15:04	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621746/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 14:03	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621926/1003
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621926	04/23/23 08:44	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-620825/26-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 15:52	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621501/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 15:24	PG	EET PEN

Client Sample ID: ROST3MW-ROX-041123
Lab Sample ID: 400-235945-8 MS
Date Collected: 04/11/23 13:35
Matrix: Water
Date Received: 04/12/23 09:13

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 16:04	WPD	EET PEN
Total/NA	Prep	3520C			252.4 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 16:36	S1B	EET PEN
Total/NA	Prep	3520C			252.4 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621246	04/18/23 15:54	PP1	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 21:12	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-235945-1

Client Sample ID: ROST3MW-ROX-041123

Date Collected: 04/11/23 13:35
Date Received: 04/12/23 09:13

Lab Sample ID: 400-235945-8 MSD

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	621746	04/21/23 16:26	WPD	EET PEN
Total/NA	Prep	3520C			249.8 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 16:57	S1B	EET PEN
Total/NA	Prep	3520C			249.8 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621246	04/18/23 16:12	PP1	EET PEN
Total/NA	Prep	8011			26.4 mL	35 mL	621501	04/19/23 12:33	PG	EET PEN
Total/NA	Analysis	8011		1			621525	04/19/23 21:33	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 621746

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-1	TB-ROX-041123-8260	Total/NA	Water	8260B	
400-235945-3	MW6D-ROX-041123	Total/NA	Water	8260B	
400-235945-4	MW6C-ROX-041123	Total/NA	Water	8260B	
400-235945-8	ROST3MW-ROX-041123	Total/NA	Water	8260B	
MB 400-621746/4	Method Blank	Total/NA	Water	8260B	
LCS 400-621746/1002	Lab Control Sample	Total/NA	Water	8260B	
400-235945-8 MS	ROST3MW-ROX-041123	Total/NA	Water	8260B	
400-235945-8 MSD	ROST3MW-ROX-041123	Total/NA	Water	8260B	

Analysis Batch: 621926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-5	MW6A-ROX-041123	Total/NA	Water	8260B	
400-235945-6	MW6A-ROX-041123-DUP	Total/NA	Water	8260B	
400-235945-7	MW6B-ROX-041123	Total/NA	Water	8260B	
MB 400-621926/5	Method Blank	Total/NA	Water	8260B	
LCS 400-621926/1003	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 620825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-3	MW6D-ROX-041123	Total/NA	Water	3520C	
400-235945-4	MW6C-ROX-041123	Total/NA	Water	3520C	
400-235945-5	MW6A-ROX-041123	Total/NA	Water	3520C	
400-235945-6	MW6A-ROX-041123-DUP	Total/NA	Water	3520C	
400-235945-7	MW6B-ROX-041123	Total/NA	Water	3520C	
400-235945-8	ROST3MW-ROX-041123	Total/NA	Water	3520C	
MB 400-620825/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-620825/25-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-620825/26-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-235945-8 MS	ROST3MW-ROX-041123	Total/NA	Water	3520C	
400-235945-8 MSD	ROST3MW-ROX-041123	Total/NA	Water	3520C	

Analysis Batch: 621130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-3	MW6D-ROX-041123	Total/NA	Water	8270D	620825
400-235945-4	MW6C-ROX-041123	Total/NA	Water	8270D	620825
400-235945-5	MW6A-ROX-041123	Total/NA	Water	8270D	620825
400-235945-6	MW6A-ROX-041123-DUP	Total/NA	Water	8270D	620825
400-235945-7	MW6B-ROX-041123	Total/NA	Water	8270D	620825
400-235945-8	ROST3MW-ROX-041123	Total/NA	Water	8270D	620825
MB 400-620825/1-A	Method Blank	Total/NA	Water	8270D	620825
LCS 400-620825/25-A	Lab Control Sample	Total/NA	Water	8270D	620825
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	8270D	620825
LCSD 400-620825/26-A	Lab Control Sample Dup	Total/NA	Water	8270D	620825
400-235945-8 MS	ROST3MW-ROX-041123	Total/NA	Water	8270D	620825
400-235945-8 MSD	ROST3MW-ROX-041123	Total/NA	Water	8270D	620825

GC/MS Semi VOA

Analysis Batch: 621246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-3	MW6D-ROX-041123	Total/NA	Water	8270D LL	620825
400-235945-4	MW6C-ROX-041123	Total/NA	Water	8270D LL	620825
400-235945-5	MW6A-ROX-041123	Total/NA	Water	8270D LL	620825
400-235945-6	MW6A-ROX-041123-DUP	Total/NA	Water	8270D LL	620825
400-235945-7	MW6B-ROX-041123	Total/NA	Water	8270D LL	620825
MB 400-620825/1-A	Method Blank	Total/NA	Water	8270D LL	620825
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	8270D LL	620825
400-235945-8 MS	ROST3MW-ROX-041123	Total/NA	Water	8270D LL	620825
400-235945-8 MSD	ROST3MW-ROX-041123	Total/NA	Water	8270D LL	620825

Analysis Batch: 622176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-8	ROST3MW-ROX-041123	Total/NA	Water	8270D LL	620825

GC Semi VOA

Prep Batch: 621501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-2	TB-ROX-041123-8011	Total/NA	Water	8011	
400-235945-3	MW6D-ROX-041123	Total/NA	Water	8011	
400-235945-4	MW6C-ROX-041123	Total/NA	Water	8011	
400-235945-5	MW6A-ROX-041123	Total/NA	Water	8011	
400-235945-6	MW6A-ROX-041123-DUP	Total/NA	Water	8011	
400-235945-7	MW6B-ROX-041123	Total/NA	Water	8011	
400-235945-8	ROST3MW-ROX-041123	Total/NA	Water	8011	
MB 400-621501/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-621501/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-621501/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-235945-8 MS	ROST3MW-ROX-041123	Total/NA	Water	8011	
400-235945-8 MSD	ROST3MW-ROX-041123	Total/NA	Water	8011	

Analysis Batch: 621525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-235945-2	TB-ROX-041123-8011	Total/NA	Water	8011	621501
400-235945-3	MW6D-ROX-041123	Total/NA	Water	8011	621501
400-235945-4	MW6C-ROX-041123	Total/NA	Water	8011	621501
400-235945-5	MW6A-ROX-041123	Total/NA	Water	8011	621501
400-235945-6	MW6A-ROX-041123-DUP	Total/NA	Water	8011	621501
400-235945-7	MW6B-ROX-041123	Total/NA	Water	8011	621501
400-235945-8	ROST3MW-ROX-041123	Total/NA	Water	8011	621501
MB 400-621501/1-A	Method Blank	Total/NA	Water	8011	621501
LCS 400-621501/2-A	Lab Control Sample	Total/NA	Water	8011	621501
LCSD 400-621501/3-A	Lab Control Sample Dup	Total/NA	Water	8011	621501
400-235945-8 MS	ROST3MW-ROX-041123	Total/NA	Water	8011	621501
400-235945-8 MSD	ROST3MW-ROX-041123	Total/NA	Water	8011	621501

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621746/4
Matrix: Water
Analysis Batch: 621746

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/21/23 14:59	1
Acrolein	ND		20	3.3	ug/L			04/21/23 14:59	1
Acrylonitrile	ND		10	2.8	ug/L			04/21/23 14:59	1
Benzene	ND		1.0	0.13	ug/L			04/21/23 14:59	1
Bromobenzene	ND		1.0	0.54	ug/L			04/21/23 14:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/21/23 14:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/21/23 14:59	1
Bromoform	ND		5.0	0.25	ug/L			04/21/23 14:59	1
Bromomethane	ND		1.0	0.98	ug/L			04/21/23 14:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/21/23 14:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/21/23 14:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/21/23 14:59	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/21/23 14:59	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/21/23 14:59	1
Chloroethane	ND		1.0	0.76	ug/L			04/21/23 14:59	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/21/23 14:59	1
Chloroform	ND		1.0	1.0	ug/L			04/21/23 14:59	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/21/23 14:59	1
Chloromethane	ND		1.0	0.32	ug/L			04/21/23 14:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/21/23 14:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/21/23 14:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/21/23 14:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/21/23 14:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/21/23 14:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/21/23 14:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/21/23 14:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/21/23 14:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 14:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 14:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 14:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/23 14:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/21/23 14:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/21/23 14:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/21/23 14:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/21/23 14:59	1
2-Hexanone	ND		25	1.4	ug/L			04/21/23 14:59	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/21/23 14:59	1
Methylene bromide	ND		5.0	0.22	ug/L			04/21/23 14:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/21/23 14:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/21/23 14:59	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/21/23 14:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/21/23 14:59	1
Naphthalene	ND		5.0	3.0	ug/L			04/21/23 14:59	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/21/23 14:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/23 14:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/21/23 14:59	1
o-Xylene	ND		5.0	0.60	ug/L			04/21/23 14:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/21/23 14:59	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621746/4
Matrix: Water
Analysis Batch: 621746

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/21/23 14:59	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/21/23 14:59	1
Styrene	ND		1.0	1.0	ug/L			04/21/23 14:59	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/21/23 14:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/21/23 14:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/21/23 14:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/21/23 14:59	1
Toluene	ND		1.0	0.41	ug/L			04/21/23 14:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/21/23 14:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/21/23 14:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/21/23 14:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/21/23 14:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/21/23 14:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/21/23 14:59	1
Trichloroethene	ND		1.0	0.15	ug/L			04/21/23 14:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/21/23 14:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/21/23 14:59	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/21/23 14:59	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/21/23 14:59	1
Vinyl acetate	ND		25	0.93	ug/L			04/21/23 14:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/21/23 14:59	1
Xylenes, Total	ND		10	1.6	ug/L			04/21/23 14:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/21/23 14:59*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/21/23 14:59*	*1*
Toluene-d8 (Surr)	*89*		*64 - 132*		*04/21/23 14:59*	*1*

Lab Sample ID: LCS 400-621746/1002
Matrix: Water
Analysis Batch: 621746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	194		ug/L		97	43 - 160
Acrolein	250	267		ug/L		107	38 - 160
Acrylonitrile	500	485		ug/L		97	64 - 142
Benzene	50.0	50.9		ug/L		102	70 - 130
Bromobenzene	50.0	44.2		ug/L		88	70 - 132
Bromochloromethane	50.0	49.1		ug/L		98	70 - 130
Bromodichloromethane	50.0	52.4		ug/L		105	67 - 133
Bromoform	50.0	50.3		ug/L		101	57 - 140
Bromomethane	25.0	21.2		ug/L		85	10 - 160
2-Butanone (MEK)	200	192		ug/L		96	61 - 145
Carbon disulfide	50.0	44.9		ug/L		90	61 - 137
Carbon tetrachloride	50.0	49.6		ug/L		99	61 - 137
Chlorobenzene	50.0	42.4		ug/L		85	70 - 130
Dibromochloromethane	50.0	45.1		ug/L		90	67 - 135
Chloroethane	25.0	19.9		ug/L		79	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621746/1002
Matrix: Water
Analysis Batch: 621746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	25.0	33.5		ug/L		134	10 - 160
Chloroform	50.0	48.5		ug/L		97	69 - 130
1-Chlorohexane	50.0	42.0		ug/L		84	69 - 130
Chloromethane	25.0	24.6		ug/L		98	58 - 137
cis-1,2-Dichloroethene	50.0	52.3		ug/L		105	68 - 130
cis-1,3-Dichloropropene	50.0	60.0		ug/L		120	69 - 132
1,2-Dichlorobenzene	50.0	41.2		ug/L		82	67 - 130
1,3-Dichlorobenzene	50.0	42.1		ug/L		84	70 - 130
1,4-Dichlorobenzene	50.0	41.5		ug/L		83	70 - 130
Dichlorodifluoromethane	25.0	13.7		ug/L		55	41 - 146
1,1-Dichloroethane	50.0	51.4		ug/L		103	70 - 130
1,2-Dichloroethane	50.0	48.8		ug/L		98	69 - 130
1,1-Dichloroethene	50.0	46.4		ug/L		93	63 - 134
1,2-Dichloropropane	50.0	56.1		ug/L		112	70 - 130
1,3-Dichloropropane	50.0	46.5		ug/L		93	70 - 130
2,2-Dichloropropane	50.0	61.9		ug/L		124	52 - 135
1,1-Dichloropropene	50.0	48.9		ug/L		98	70 - 130
Ethylbenzene	50.0	42.0		ug/L		84	70 - 130
Ethyl methacrylate	50.0	50.4		ug/L		101	68 - 130
Hexachlorobutadiene	50.0	40.7		ug/L		81	53 - 140
2-Hexanone	200	172		ug/L		86	65 - 137
Isopropy benzene	50.0	40.1		ug/L		80	70 - 130
Methylene bromide	50.0	51.0		ug/L		102	70 - 130
Methylene Chloride	50.0	55.4		ug/L		111	66 - 135
4-Methyl-2-pentanone (MIBK)	200	216		ug/L		108	69 - 138
Methyl tert-butyl ether	50.0	56.0		ug/L		112	66 - 130
m-Xylene & p-Xylene	50.0	40.1		ug/L		80	70 - 130
Naphthalene	50.0	43.6		ug/L		87	47 - 149
n-Butylbenzene	50.0	38.6		ug/L		77	67 - 130
N-Propylbenzene	50.0	42.9		ug/L		86	70 - 130
o-Chlorotoluene	50.0	39.7		ug/L		79	70 - 130
o-Xylene	50.0	40.7		ug/L		81	70 - 130
p-Chlorotoluene	50.0	42.7		ug/L		85	70 - 130
p-Isopropyltoluene	50.0	41.7		ug/L		83	65 - 130
sec-Butylbenzene	50.0	41.3		ug/L		83	66 - 130
Styrene	50.0	42.6		ug/L		85	70 - 130
tert-Butylbenzene	50.0	41.2		ug/L		82	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.4		ug/L		97	67 - 131
1,1,2,2-Tetrachloroethane	50.0	46.8		ug/L		94	70 - 131
Tetrachloroethene	50.0	42.9		ug/L		86	65 - 130
Toluene	50.0	40.8		ug/L		82	70 - 130
trans-1,2-Dichloroethene	50.0	46.7		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	51.9		ug/L		104	63 - 130
1,2,3-Trichlorobenzene	50.0	44.8		ug/L		90	60 - 138
1,2,4-Trichlorobenzene	50.0	44.7		ug/L		89	60 - 140
1,1,1-Trichloroethane	50.0	47.3		ug/L		95	68 - 130
1,1,2-Trichloroethane	50.0	45.5		ug/L		91	70 - 130
Trichloroethene	50.0	48.6		ug/L		97	70 - 130
Trichlorofluoromethane	25.0	21.3		ug/L		85	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621746/1002
Matrix: Water
Analysis Batch: 621746

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	42.9		ug/L		86	70 - 130
1,2,4-Trimethy benzene	50.0	43.0		ug/L		86	70 - 130
1,3,5-Trimethy benzene	50.0	42.6		ug/L		85	69 - 130
Vinyl acetate	50.0	71.0		ug/L		142	26 - 160
Vinyl chloride	25.0	23.7		ug/L		95	59 - 136
Xylenes, Total	100	80.8		ug/L		81	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*89*		*64 - 132*

Lab Sample ID: 400-235945-8 MS
Matrix: Water
Analysis Batch: 621746

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	276		ug/L		138	43 - 150
Acrolein	ND		250	269		ug/L		107	38 - 150
Acrylonitrile	ND		500	533		ug/L		107	62 - 149
Benzene	0.56	J	50.0	50.5		ug/L		100	56 - 142
Bromobenzene	ND		50.0	42.4		ug/L		85	59 - 136
Bromochloromethane	ND		50.0	50.3		ug/L		101	64 - 140
Bromodichloromethane	ND		50.0	53.5		ug/L		107	59 - 143
Bromoform	ND		50.0	51.0		ug/L		102	50 - 140
Bromomethane	ND		25.0	13.2		ug/L		53	10 - 150
2-Butanone (MEK)	ND		200	204		ug/L		102	55 - 150
Carbon disulfide	ND		50.0	42.8		ug/L		86	48 - 150
Carbon tetrachloride	ND		50.0	46.8		ug/L		94	55 - 145
Chlorobenzene	ND		50.0	41.2		ug/L		82	64 - 130
Dibromochloromethane	ND		50.0	46.0		ug/L		92	56 - 143
Chloroethane	ND		25.0	13.3		ug/L		53	50 - 150
2-Chloroethyl vinyl ether	ND	F2 F1	25.0	9.98		ug/L		40	10 - 150
Chloroform	ND		50.0	48.0		ug/L		96	60 - 141
1-Chlorohexane	ND		50.0	39.6		ug/L		79	56 - 136
Chloromethane	ND	F1	25.0	9.49	F1	ug/L		38	49 - 148
cis-1,2-Dichloroethene	ND		50.0	52.5		ug/L		105	59 - 143
cis-1,3-Dichloropropene	ND		50.0	60.8		ug/L		122	57 - 140
1,2-Dichlorobenzene	ND		50.0	39.9		ug/L		80	52 - 137
1,3-Dichlorobenzene	ND		50.0	39.6		ug/L		79	54 - 135
1,4-Dichlorobenzene	ND		50.0	39.7		ug/L		79	53 - 135
Dichlorodifluoromethane	ND		25.0	8.61		ug/L		34	16 - 150
1,1-Dichloroethane	ND		50.0	50.3		ug/L		101	61 - 144
1,2-Dichloroethane	ND		50.0	51.1		ug/L		102	60 - 141
1,1-Dichloroethene	ND		50.0	44.2		ug/L		88	54 - 147
1,2-Dichloropropane	ND		50.0	57.3		ug/L		115	66 - 137
1,3-Dichloropropane	ND		50.0	48.5		ug/L		97	66 - 133
2,2-Dichloropropane	ND		50.0	58.8		ug/L		118	42 - 144

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235945-8 MS
Matrix: Water
Analysis Batch: 621746

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	ND		50.0	46.3		ug/L		93	65 - 136
Ethylbenzene	ND		50.0	40.0		ug/L		80	58 - 131
Ethyl methacrylate	ND		50.0	54.7		ug/L		109	64 - 130
Hexachlorobutadiene	ND		50.0	36.0		ug/L		72	31 - 149
2-Hexanone	ND		200	190		ug/L		95	65 - 140
Isopropy benzene	ND		50.0	37.9		ug/L		76	56 - 133
Methylene bromide	ND		50.0	53.8		ug/L		108	63 - 138
Methylene Chloride	ND		50.0	53.1		ug/L		106	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	247		ug/L		124	63 - 146
Methyl tert-butyl ether	ND		50.0	60.5		ug/L		121	59 - 137
m-Xylene & p-Xylene	ND		50.0	38.5		ug/L		77	57 - 130
Naphthalene	ND		50.0	45.9		ug/L		92	25 - 150
n-Butylbenzene	ND		50.0	34.9		ug/L		70	41 - 142
N-Propylbenzene	ND		50.0	39.0		ug/L		78	51 - 138
o-Chlorotoluene	ND		50.0	36.8		ug/L		74	53 - 134
o-Xylene	ND		50.0	39.7		ug/L		79	61 - 130
p-Chlorotoluene	ND		50.0	39.9		ug/L		80	54 - 133
p-Isopropyltoluene	ND		50.0	38.3		ug/L		77	48 - 139
sec-Butylbenzene	ND		50.0	37.5		ug/L		75	50 - 138
Styrene	ND		50.0	41.7		ug/L		83	58 - 131
tert-Butylbenzene	ND		50.0	37.4		ug/L		75	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	47.6		ug/L		95	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	50.4		ug/L		101	66 - 135
Tetrachloroethene	ND		50.0	34.3		ug/L		69	52 - 133
Toluene	ND		50.0	39.2		ug/L		78	65 - 130
trans-1,2-Dichloroethene	ND		50.0	45.4		ug/L		91	61 - 143
trans-1,3-Dichloropropene	ND		50.0	53.1		ug/L		106	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	45.1		ug/L		90	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	43.3		ug/L		87	39 - 148
1,1,1-Trichloroethane	ND		50.0	44.7		ug/L		89	57 - 142
1,1,2-Trichloroethane	ND		50.0	47.9		ug/L		96	66 - 131
Trichloroethene	ND		50.0	45.4		ug/L		91	64 - 136
Trichlorofluoromethane	ND		25.0	19.3		ug/L		77	54 - 150
1,2,3-Trichloropropane	ND		50.0	44.8		ug/L		90	65 - 133
1,2,4-Trimethy benzene	ND		50.0	40.3		ug/L		81	50 - 139
1,3,5-Trimethy benzene	ND		50.0	39.3		ug/L		79	52 - 135
Vinyl acetate	ND	F1	50.0	76.6	F1	ug/L		153	26 - 150
Vinyl chloride	ND		25.0	20.4		ug/L		81	46 - 150
Xylenes, Total	ND		100	78.2		ug/L		78	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 119*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*87*		*64 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235945-8 MSD
Matrix: Water
Analysis Batch: 621746

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND		200	292		ug/L		146	43 - 150	6	30
Acrolein	ND		250	302		ug/L		121	38 - 150	12	31
Acrylonitrile	ND		500	561		ug/L		112	62 - 149	5	30
Benzene	0.56	J	50.0	52.2		ug/L		103	56 - 142	3	30
Bromobenzene	ND		50.0	41.6		ug/L		83	59 - 136	2	30
Bromochloromethane	ND		50.0	52.1		ug/L		104	64 - 140	4	30
Bromodichloromethane	ND		50.0	55.2		ug/L		110	59 - 143	3	30
Bromoform	ND		50.0	50.3		ug/L		101	50 - 140	1	30
Bromomethane	ND		25.0	12.1		ug/L		49	10 - 150	9	50
2-Butanone (MEK)	ND		200	221		ug/L		111	55 - 150	8	30
Carbon disulfide	ND		50.0	45.6		ug/L		91	48 - 150	6	30
Carbon tetrachloride	ND		50.0	50.1		ug/L		100	55 - 145	7	30
Chlorobenzene	ND		50.0	42.1		ug/L		84	64 - 130	2	30
Dibromochloromethane	ND		50.0	46.6		ug/L		93	56 - 143	1	30
Chloroethane	ND		25.0	15.6		ug/L		62	50 - 150	16	30
2-Chloroethyl vinyl ether	ND	F2 F1	25.0	2.18	J F2 F1	ug/L		9	10 - 150	128	50
Chloroform	ND		50.0	50.0		ug/L		100	60 - 141	4	30
1-Chlorohexane	ND		50.0	40.8		ug/L		82	56 - 136	3	30
Chloromethane	ND	F1	25.0	9.94	F1	ug/L		40	49 - 148	5	31
cis-1,2-Dichloroethene	ND		50.0	55.1		ug/L		110	59 - 143	5	30
cis-1,3-Dichloropropene	ND		50.0	63.6		ug/L		127	57 - 140	4	30
1,2-Dichlorobenzene	ND		50.0	39.7		ug/L		79	52 - 137	1	30
1,3-Dichlorobenzene	ND		50.0	39.5		ug/L		79	54 - 135	0	30
1,4-Dichlorobenzene	ND		50.0	39.3		ug/L		79	53 - 135	1	30
Dichlorodifluoromethane	ND		25.0	9.12		ug/L		36	16 - 150	6	31
1,1-Dichloroethane	ND		50.0	52.2		ug/L		104	61 - 144	4	30
1,2-Dichloroethane	ND		50.0	52.3		ug/L		105	60 - 141	2	30
1,1-Dichloroethene	ND		50.0	47.5		ug/L		95	54 - 147	7	30
1,2-Dichloropropane	ND		50.0	58.9		ug/L		118	66 - 137	3	30
1,3-Dichloropropane	ND		50.0	49.2		ug/L		98	66 - 133	1	30
2,2-Dichloropropane	ND		50.0	62.3		ug/L		125	42 - 144	6	31
1,1-Dichloropropene	ND		50.0	49.4		ug/L		99	65 - 136	6	30
Ethylbenzene	ND		50.0	40.2		ug/L		80	58 - 131	0	30
Ethyl methacrylate	ND		50.0	55.4		ug/L		111	64 - 130	1	30
Hexachlorobutadiene	ND		50.0	35.9		ug/L		72	31 - 149	0	36
2-Hexanone	ND		200	190		ug/L		95	65 - 140	0	30
Isopropy benzene	ND		50.0	37.5		ug/L		75	56 - 133	1	30
Methylene bromide	ND		50.0	55.5		ug/L		111	63 - 138	3	30
Methylene Chloride	ND		50.0	56.6		ug/L		113	60 - 146	6	32
4-Methyl-2-pentanone (MIBK)	ND		200	263		ug/L		132	63 - 146	6	30
Methyl tert-butyl ether	ND		50.0	62.4		ug/L		125	59 - 137	3	30
m-Xylene & p-Xylene	ND		50.0	39.7		ug/L		79	57 - 130	3	30
Naphthalene	ND		50.0	46.1		ug/L		92	25 - 150	0	30
n-Butylbenzene	ND		50.0	35.4		ug/L		71	41 - 142	1	31
N-Propylbenzene	ND		50.0	39.0		ug/L		78	51 - 138	0	30
o-Chlorotoluene	ND		50.0	36.6		ug/L		73	53 - 134	1	30
o-Xylene	ND		50.0	39.4		ug/L		79	61 - 130	1	30
p-Chlorotoluene	ND		50.0	39.2		ug/L		78	54 - 133	2	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235945-8 MSD
Matrix: Water
Analysis Batch: 621746

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	38.7		ug/L		77	48 - 139	1	30
sec-Butylbenzene	ND		50.0	38.4		ug/L		77	50 - 138	2	30
Styrene	ND		50.0	41.5		ug/L		83	58 - 131	0	30
tert-Butylbenzene	ND		50.0	38.2		ug/L		76	54 - 146	2	30
1,1,1,2-Tetrachloroethane	ND		50.0	47.3		ug/L		95	59 - 137	1	30
1,1,2,2-Tetrachloroethane	ND		50.0	50.4		ug/L		101	66 - 135	0	30
Tetrachloroethene	ND		50.0	35.6		ug/L		71	52 - 133	4	30
Toluene	ND		50.0	40.0		ug/L		80	65 - 130	2	30
trans-1,2-Dichloroethene	ND		50.0	46.9		ug/L		94	61 - 143	3	30
trans-1,3-Dichloropropene	ND		50.0	53.5		ug/L		107	53 - 133	1	30
1,2,3-Trichlorobenzene	ND		50.0	43.2		ug/L		86	43 - 145	4	30
1,2,4-Trichlorobenzene	ND		50.0	42.4		ug/L		85	39 - 148	2	30
1,1,1-Trichloroethane	ND		50.0	48.2		ug/L		96	57 - 142	8	30
1,1,2-Trichloroethane	ND		50.0	47.9		ug/L		96	66 - 131	0	30
Trichloroethene	ND		50.0	47.6		ug/L		95	64 - 136	5	30
Trichlorofluoromethane	ND		25.0	21.3		ug/L		85	54 - 150	10	30
1,2,3-Trichloropropane	ND		50.0	45.4		ug/L		91	65 - 133	1	30
1,2,4-Trimethy benzene	ND		50.0	40.7		ug/L		81	50 - 139	1	30
1,3,5-Trimethy benzene	ND		50.0	38.9		ug/L		78	52 - 135	1	30
Vinyl acetate	ND	F1	50.0	82.6	F1	ug/L		165	26 - 150	8	33
Vinyl chloride	ND		25.0	20.4		ug/L		82	46 - 150	0	30
Xylenes, Total	ND		100	79.1		ug/L		79	59 - 130	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*72 - 119*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*87*		*64 - 132*

Lab Sample ID: MB 400-621926/5
Matrix: Water
Analysis Batch: 621926

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/23/23 09:30	1
Acrolein	ND		20	3.3	ug/L			04/23/23 09:30	1
Acrylonitrile	ND		10	2.8	ug/L			04/23/23 09:30	1
Benzene	ND		1.0	0.13	ug/L			04/23/23 09:30	1
Bromobenzene	ND		1.0	0.54	ug/L			04/23/23 09:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/23/23 09:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/23/23 09:30	1
Bromoform	ND		5.0	0.25	ug/L			04/23/23 09:30	1
Bromomethane	ND		1.0	0.98	ug/L			04/23/23 09:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/23/23 09:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/23/23 09:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/23/23 09:30	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/23/23 09:30	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/23/23 09:30	1
Chloroethane	ND		1.0	0.76	ug/L			04/23/23 09:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621926/5
Matrix: Water
Analysis Batch: 621926

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/23/23 09:30	1
Chloroform	ND		1.0	1.0	ug/L			04/23/23 09:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/23/23 09:30	1
Chloromethane	ND		1.0	0.32	ug/L			04/23/23 09:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/23/23 09:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/23/23 09:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/23/23 09:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/23/23 09:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/23/23 09:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/23/23 09:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/23/23 09:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/23/23 09:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 09:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 09:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 09:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/23/23 09:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/23/23 09:30	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/23/23 09:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/23/23 09:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/23/23 09:30	1
2-Hexanone	ND		25	1.4	ug/L			04/23/23 09:30	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/23/23 09:30	1
Methylene bromide	ND		5.0	0.22	ug/L			04/23/23 09:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/23/23 09:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/23/23 09:30	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/23/23 09:30	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/23/23 09:30	1
Naphthalene	ND		5.0	3.0	ug/L			04/23/23 09:30	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/23/23 09:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/23/23 09:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/23/23 09:30	1
o-Xylene	ND		5.0	0.60	ug/L			04/23/23 09:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/23/23 09:30	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/23/23 09:30	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/23/23 09:30	1
Styrene	ND		1.0	1.0	ug/L			04/23/23 09:30	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/23/23 09:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/23/23 09:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/23/23 09:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/23/23 09:30	1
Toluene	ND		1.0	0.41	ug/L			04/23/23 09:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/23/23 09:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/23/23 09:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/23/23 09:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/23/23 09:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/23/23 09:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/23/23 09:30	1
Trichloroethene	ND		1.0	0.15	ug/L			04/23/23 09:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/23/23 09:30	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621926/5
Matrix: Water
Analysis Batch: 621926

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/23/23 09:30	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/23/23 09:30	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/23/23 09:30	1
Vinyl acetate	ND		25	0.93	ug/L			04/23/23 09:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/23/23 09:30	1
Xylenes, Total	ND		10	1.6	ug/L			04/23/23 09:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/23/23 09:30*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*04/23/23 09:30*	*1*
Toluene-d8 (Surr)	*88*		*64 - 132*		*04/23/23 09:30*	*1*

Lab Sample ID: LCS 400-621926/1003
Matrix: Water
Analysis Batch: 621926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	234		ug/L		117	43 - 160
Acrolein	250	313		ug/L		125	38 - 160
Acrylonitrile	500	523		ug/L		105	64 - 142
Benzene	50.0	52.7		ug/L		105	70 - 130
Bromobenzene	50.0	44.7		ug/L		89	70 - 132
Bromochloromethane	50.0	51.0		ug/L		102	70 - 130
Bromodichloromethane	50.0	57.0		ug/L		114	67 - 133
Bromoform	50.0	50.9		ug/L		102	57 - 140
Bromomethane	25.0	30.0		ug/L		120	10 - 160
2-Butanone (MEK)	200	223		ug/L		112	61 - 145
Carbon disulfide	50.0	49.9		ug/L		100	61 - 137
Carbon tetrachloride	50.0	59.0		ug/L		118	61 - 137
Chlorobenzene	50.0	43.8		ug/L		88	70 - 130
Dibromochloromethane	50.0	47.9		ug/L		96	67 - 135
Chloroethane	25.0	23.6		ug/L		94	55 - 141
2-Chloroethyl vinyl ether	25.0	36.7		ug/L		147	10 - 160
Chloroform	50.0	54.3		ug/L		109	69 - 130
1-Chlorohexane	50.0	44.2		ug/L		88	69 - 130
Chloromethane	25.0	28.1		ug/L		112	58 - 137
cis-1,2-Dichloroethene	50.0	56.6		ug/L		113	68 - 130
cis-1,3-Dichloropropene	50.0	60.9		ug/L		122	69 - 132
1,2-Dichlorobenzene	50.0	42.7		ug/L		85	67 - 130
1,3-Dichlorobenzene	50.0	42.8		ug/L		86	70 - 130
1,4-Dichlorobenzene	50.0	42.3		ug/L		85	70 - 130
Dichlorodifluoromethane	25.0	22.7		ug/L		91	41 - 146
1,1-Dichloroethane	50.0	53.6		ug/L		107	70 - 130
1,2-Dichloroethane	50.0	57.1		ug/L		114	69 - 130
1,1-Dichloroethene	50.0	50.2		ug/L		100	63 - 134
1,2-Dichloropropane	50.0	56.2		ug/L		112	70 - 130
1,3-Dichloropropane	50.0	48.0		ug/L		96	70 - 130
2,2-Dichloropropane	50.0	69.1	*+	ug/L		138	52 - 135

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621926/1003
Matrix: Water
Analysis Batch: 621926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	50.0	52.7		ug/L		105	70 - 130
Ethylbenzene	50.0	44.3		ug/L		89	70 - 130
Ethyl methacrylate	50.0	52.1		ug/L		104	68 - 130
Hexachlorobutadiene	50.0	42.3		ug/L		85	53 - 140
2-Hexanone	200	184		ug/L		92	65 - 137
Isopropy benzene	50.0	42.9		ug/L		86	70 - 130
Methylene bromide	50.0	55.0		ug/L		110	70 - 130
Methylene Chloride	50.0	54.4		ug/L		109	66 - 135
4-Methyl-2-pentanone (MIBK)	200	230		ug/L		115	69 - 138
Methyl tert-butyl ether	50.0	61.7		ug/L		123	66 - 130
m-Xylene & p-Xylene	50.0	43.0		ug/L		86	70 - 130
Naphthalene	50.0	47.0		ug/L		94	47 - 149
n-Butylbenzene	50.0	40.4		ug/L		81	67 - 130
N-Propylbenzene	50.0	44.7		ug/L		89	70 - 130
o-Chlorotoluene	50.0	42.3		ug/L		85	70 - 130
o-Xylene	50.0	44.1		ug/L		88	70 - 130
p-Chlorotoluene	50.0	45.4		ug/L		91	70 - 130
p-Isopropyltoluene	50.0	43.8		ug/L		88	65 - 130
sec-Butylbenzene	50.0	43.7		ug/L		87	66 - 130
Styrene	50.0	44.2		ug/L		88	70 - 130
tert-Butylbenzene	50.0	45.9		ug/L		92	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.8		ug/L		102	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.9		ug/L		98	70 - 131
Tetrachloroethene	50.0	44.4		ug/L		89	65 - 130
Toluene	50.0	42.9		ug/L		86	70 - 130
trans-1,2-Dichloroethene	50.0	49.6		ug/L		99	70 - 130
trans-1,3-Dichloropropene	50.0	54.9		ug/L		110	63 - 130
1,2,3-Trichlorobenzene	50.0	46.5		ug/L		93	60 - 138
1,2,4-Trichlorobenzene	50.0	45.4		ug/L		91	60 - 140
1,1,1-Trichloroethane	50.0	55.6		ug/L		111	68 - 130
1,1,2-Trichloroethane	50.0	46.5		ug/L		93	70 - 130
Trichloroethene	50.0	49.8		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	28.9		ug/L		115	65 - 138
1,2,3-Trichloropropane	50.0	49.0		ug/L		98	70 - 130
1,2,4-Trimethy benzene	50.0	46.4		ug/L		93	70 - 130
1,3,5-Trimethy benzene	50.0	45.2		ug/L		90	69 - 130
Vinyl acetate	50.0	79.3		ug/L		159	26 - 160
Vinyl chloride	25.0	26.8		ug/L		107	59 - 136
Xylenes, Total	100	87.1		ug/L		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*72 - 119*
Dibromofluoromethane	*105*		*75 - 126*
Toluene-d8 (Surr)	*89*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
Benzenethiol	ND		10	1.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
Benzoic acid	ND		30	7.3	ug/L		04/14/23 08:21	04/17/23 15:09	1
Benzyl alcohol	ND		10	2.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/14/23 08:21	04/17/23 15:09	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/14/23 08:21	04/17/23 15:09	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/14/23 08:21	04/17/23 15:09	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Chloroaniline	ND		10	3.4	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Chlorophenol	ND		10	2.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Dibenzofuran	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Diethyl phthalate	0.431	J	10	0.24	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/14/23 08:21	04/17/23 15:09	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
1,4-Dioxane	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/14/23 08:21	04/17/23 15:09	1
Hexachloroethane	ND		10	4.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
Indene	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Isophorone	ND		10	0.14	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Methylphenol	ND		10	1.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Nitroaniline	ND		10	2.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
3-Nitroaniline	ND		10	1.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Nitroaniline	ND		10	1.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
Nitrobenzene	ND		10	0.13	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Nitrophenol	ND		10	5.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Nitrophenol	ND		10	2.1	ug/L		04/14/23 08:21	04/17/23 15:09	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/14/23 08:21	04/17/23 15:09	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/14/23 08:21	04/17/23 15:09	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 15:09	1
Phenol	ND		10	2.6	ug/L		04/14/23 08:21	04/17/23 15:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
Quinoline	ND		10	4.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 15:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
2-Fluorophenol	*13*		*13 - 113*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
Nitrobenzene-d5	*88*		*36 - 126*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
Phenol-d5	*58*		*17 - 127*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
2,4,6-Tribromophenol	*43*		*26 - 150*	*04/14/23 08:21*	*04/17/23 15:09*	*1*

Lab Sample ID: LCS 400-620825/25-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.53	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*97*		*44 - 149*
2,4,6-Tribromophenol	*61*		*26 - 150*

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	109		ug/L		90	21 - 120
Benzoic acid	554	286		ug/L		52	10 - 144
Benzyl alcohol	120	87.7		ug/L		73	28 - 120
Bis(2-chloroethoxy)methane	120	91.5		ug/L		76	47 - 120
Bis(2-chloroethyl)ether	120	91.2		ug/L		76	44 - 120
bis (2-chloroisopropyl) ether	120	95.3		ug/L		79	33 - 121
Bis(2-ethylhexyl) phthalate	120	115		ug/L		96	52 - 147
4-Bromophenyl phenyl ether	120	103		ug/L		86	54 - 122
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133
4-Chloroaniline	120	95.5		ug/L		80	26 - 120
4-Chloro-3-methylphenol	120	98.4		ug/L		82	48 - 131
2-Chloronaphthalene	120	105		ug/L		88	52 - 121
2-Chlorophenol	120	66.1		ug/L		55	40 - 120
4-Chlorophenyl phenyl ether	120	107		ug/L		89	56 - 125
Dibenz[a,h]acridine	120	97.2		ug/L		81	31 - 150

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenzofuran	120	109		ug/L		91	56 - 122
3,3'-Dichlorobenzidine	160	188		ug/L		118	36 - 132
2,4-Dichlorophenol	120	85.7		ug/L		71	49 - 120
Diethyl phthalate	120	113		ug/L		94	50 - 137
2,4-Dimethylphenol	120	80.2		ug/L		67	48 - 120
Dimethyl phthalate	120	105		ug/L		87	57 - 124
Di-n-butyl phthalate	120	118		ug/L		98	58 - 126
4,6-Dinitro-ortho-cresol	240	170		ug/L		71	23 - 148
2,4-Dinitrophenol	240	189		ug/L		79	10 - 150
2,4-Dinitrotoluene	120	109		ug/L		91	54 - 142
2,6-Dinitrotoluene	120	104		ug/L		87	55 - 130
Di-n-octyl phthalate	120	114		ug/L		95	57 - 138
1,4-Dioxane	120	66.8		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	104		ug/L		87	45 - 124
Hexachlorobenzene	120	110		ug/L		91	52 - 129
Hexachlorocyclopentadiene	120	66.9		ug/L		56	10 - 134
Hexachloroethane	120	100		ug/L		83	20 - 120
Indene	120	97.9		ug/L		82	49 - 120
Isophorone	120	93.6		ug/L		78	48 - 120
2-Methylphenol	120	106		ug/L		88	46 - 124
3 & 4 Methylphenol	120	98.8		ug/L		82	45 - 120
2-Nitroaniline	120	106		ug/L		89	51 - 145
3-Nitroaniline	120	90.6		ug/L		76	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	93.2		ug/L		78	45 - 120
2-Nitrophenol	120	85.7		ug/L		71	40 - 124
4-Nitrophenol	240	240		ug/L		100	23 - 146
N-Nitrosodimethylamine	120	97.5		ug/L		81	29 - 137
N-Nitrosodi-n-propylamine	120	111		ug/L		92	45 - 120
N-Nitrosodiphenylamine	119	103		ug/L		87	54 - 120
Pentachlorophenol	240	166		ug/L		69	31 - 130
Phenol	120	74.4		ug/L		62	11 - 120
Pyridine	240	156		ug/L		65	16 - 120
Quinoline	120	112		ug/L		94	49 - 130
2,4,5-Trichlorophenol	120	93.2		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	84.6		ug/L		70	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*67*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*86*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-620825/26-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620825

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	5.64	J *-	ug/L		5	10 - 120	15	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*71*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*38*		*26 - 150*

Lab Sample ID: 400-235945-8 MS
Matrix: Water
Analysis Batch: 621130

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		119	99.4		ug/L		84	10 - 120
Benzoic acid	ND		549	434		ug/L		79	10 - 149
Benzyl alcohol	ND		119	88.0		ug/L		74	33 - 120
Bis(2-chloroethoxy)methane	ND		119	91.3		ug/L		77	26 - 120
Bis(2-chloroethyl)ether	ND		119	96.7		ug/L		81	42 - 120
bis (2-chloroisopropyl) ether	ND		119	94.0		ug/L		79	28 - 120
Bis(2-ethylhexyl) phthalate	ND		119	114		ug/L		96	39 - 120
4-Bromophenyl phenyl ether	ND		119	106		ug/L		89	40 - 120
Butyl benzyl phthalate	ND		119	112		ug/L		94	45 - 120
4-Chloroaniline	ND		119	87.7		ug/L		74	10 - 120
4-Chloro-3-methylphenol	ND		119	104		ug/L		88	34 - 120
2-Chloronaphthalene	ND		119	104		ug/L		88	39 - 120
2-Chlorophenol	ND		119	90.3		ug/L		76	25 - 120
4-Chlorophenyl phenyl ether	ND		119	107		ug/L		90	44 - 120
Dibenz[a,h]acridine	ND		119	92.9		ug/L		78	50 - 150
Dibenzofuran	ND		119	108		ug/L		91	25 - 130
3,3'-Dichlorobenzidine	ND	F1	158	186		ug/L		117	10 - 120
2,4-Dichlorophenol	ND		119	102		ug/L		86	31 - 120
Diethyl phthalate	ND		119	113		ug/L		95	46 - 120
2,4-Dimethylphenol	ND		119	85.4		ug/L		72	21 - 120
Dimethyl phthalate	ND		119	104		ug/L		87	38 - 120
Di-n-butyl phthalate	ND		119	118		ug/L		99	49 - 120
4,6-Dinitro-ortho-cresol	ND		238	184		ug/L		78	25 - 120
2,4-Dinitrophenol	ND		238	210		ug/L		88	15 - 140
2,4-Dinitrotoluene	ND		119	109		ug/L		91	53 - 120
2,6-Dinitrotoluene	ND		119	104		ug/L		88	43 - 120
Di-n-octyl phthalate	ND		119	113		ug/L		95	35 - 121
1,4-Dioxane	ND		119	64.3		ug/L		54	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		119	105		ug/L		88	50 - 150
Hexachlorobenzene	ND		119	112		ug/L		94	38 - 122
Hexachlorocyclopentadiene	ND		119	69.3		ug/L		58	10 - 120
Hexachloroethane	ND		119	97.6		ug/L		82	10 - 150

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235945-8 MS
Matrix: Water
Analysis Batch: 621130

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indene	ND		119	97.8		ug/L		82	50 - 150
Isophorone	ND		119	93.2		ug/L		78	42 - 120
2-Methylphenol	ND		119	117		ug/L		98	28 - 120
3 & 4 Methylphenol	ND		119	108		ug/L		91	31 - 120
2-Nitroaniline	ND		119	108		ug/L		90	45 - 120
3-Nitroaniline	ND		119	89.0		ug/L		75	10 - 130
4-Nitroaniline	ND		119	117		ug/L		98	10 - 132
Nitrobenzene	ND		119	92.9		ug/L		78	39 - 120
2-Nitrophenol	ND		119	106		ug/L		89	33 - 120
4-Nitrophenol	ND		238	245		ug/L		103	10 - 120
N-Nitrosodimethylamine	ND		119	93.3		ug/L		79	10 - 139
N-Nitrosodi-n-propylamine	ND		119	109		ug/L		92	37 - 124
N-Nitrosodiphenylamine	ND		118	103		ug/L		88	10 - 150
Pentachlorophenol	ND		238	184		ug/L		77	29 - 130
Phenol	ND		119	90.4		ug/L		76	10 - 150
Pyridine	ND		238	154		ug/L		65	10 - 120
Quinoline	ND		119	111		ug/L		94	51 - 120
2,4,5-Trichlorophenol	ND		119	103		ug/L		87	34 - 120
2,4,6-Trichlorophenol	ND		119	97.0		ug/L		82	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*54*		*13 - 113*
Nitrobenzene-d5	*80*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*87*		*26 - 150*

Lab Sample ID: 400-235945-8 MSD
Matrix: Water
Analysis Batch: 621130

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		120	111		ug/L		92	10 - 120	11	63
Benzoic acid	ND		554	441		ug/L		79	10 - 149	2	49
Benzyl alcohol	ND		120	101		ug/L		84	33 - 120	14	37
Bis(2-chloroethoxy)methane	ND		120	99.4		ug/L		83	26 - 120	8	70
Bis(2-chloroethyl)ether	ND		120	102		ug/L		85	42 - 120	5	42
bis (2-chloroisopropyl) ether	ND		120	100		ug/L		84	28 - 120	7	41
Bis(2-ethylhexyl) phthalate	ND		120	125		ug/L		104	39 - 120	10	35
4-Bromophenyl phenyl ether	ND		120	118		ug/L		98	40 - 120	10	30
Butyl benzyl phthalate	ND		120	125		ug/L		104	45 - 120	11	32
4-Chloroaniline	ND		120	99.0		ug/L		82	10 - 120	12	94
4-Chloro-3-methylphenol	ND		120	111		ug/L		93	34 - 120	7	40
2-Chloronaphthalene	ND		120	115		ug/L		96	39 - 120	10	29
2-Chlorophenol	ND		120	76.9		ug/L		64	25 - 120	16	42
4-Chlorophenyl phenyl ether	ND		120	118		ug/L		98	44 - 120	9	27
Dibenz[a,h]acridine	ND		120	103		ug/L		86	50 - 150	11	40

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-235945-8 MSD
Matrix: Water
Analysis Batch: 621130

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenzofuran	ND		120	119		ug/L		99	25 - 130	10	29
3,3'-Dichlorobenzidine	ND	F1	160	200	F1	ug/L		125	10 - 120	7	58
2,4-Dichlorophenol	ND		120	106		ug/L		88	31 - 120	4	43
Diethyl phthalate	ND		120	124		ug/L		103	46 - 120	9	40
2,4-Dimethylphenol	ND		120	94.0		ug/L		78	21 - 120	10	47
Dimethyl phthalate	ND		120	115		ug/L		95	38 - 120	10	36
Di-n-butyl phthalate	ND		120	130		ug/L		108	49 - 120	10	32
4,6-Dinitro-ortho-cresol	ND		240	188		ug/L		78	25 - 120	2	42
2,4-Dinitrophenol	ND		240	211		ug/L		88	15 - 140	0	36
2,4-Dinitrotoluene	ND		120	118		ug/L		98	53 - 120	8	28
2,6-Dinitrotoluene	ND		120	114		ug/L		95	43 - 120	9	28
Di-n-octyl phthalate	ND		120	122		ug/L		102	35 - 121	8	35
1,4-Dioxane	ND		120	69.3		ug/L		58	50 - 150	7	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		120	116		ug/L		96	50 - 150	10	40
Hexachlorobenzene	ND		120	124		ug/L		103	38 - 122	10	33
Hexachlorocyclopentadiene	ND		120	69.9		ug/L		58	10 - 120	1	50
Hexachloroethane	ND		120	106		ug/L		88	10 - 150	8	41
Indene	ND		120	104		ug/L		86	50 - 150	6	40
Isophorone	ND		120	101		ug/L		84	42 - 120	8	33
2-Methylphenol	ND		120	120		ug/L		100	28 - 120	3	47
3 & 4 Methylphenol	ND		120	111		ug/L		92	31 - 120	3	47
2-Nitroaniline	ND		120	116		ug/L		96	45 - 120	7	33
3-Nitroaniline	ND		120	100		ug/L		84	10 - 130	12	39
4-Nitroaniline	ND		120	130		ug/L		108	10 - 132	11	50
Nitrobenzene	ND		120	101		ug/L		84	39 - 120	8	35
2-Nitrophenol	ND		120	110		ug/L		91	33 - 120	4	43
4-Nitrophenol	ND		240	269		ug/L		112	10 - 120	9	82
N-Nitrosodimethylamine	ND		120	108		ug/L		90	10 - 139	15	62
N-Nitrosodi-n-propylamine	ND		120	116		ug/L		96	37 - 124	6	36
N-Nitrosodiphenylamine	ND		119	116		ug/L		97	10 - 150	11	34
Pentachlorophenol	ND		240	205		ug/L		85	29 - 130	11	42
Phenol	ND		120	84.9		ug/L		71	10 - 150	6	52
Pyridine	ND		240	168		ug/L		70	10 - 120	9	55
Quinoline	ND		120	122		ug/L		101	51 - 120	9	40
2,4,5-Trichlorophenol	ND		120	111		ug/L		92	34 - 120	7	42
2,4,6-Trichlorophenol	ND		120	104		ug/L		87	33 - 120	7	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*46 - 124*
2-Fluorophenol	*31*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*94*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 15:20	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 15:20	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/14/23 08:21	04/18/23 15:20	1
Chrysene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 15:20	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/14/23 08:21	04/18/23 15:20	1
Fluoranthene	ND		0.20	0.068	ug/L		04/14/23 08:21	04/18/23 15:20	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 15:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/14/23 08:21	04/18/23 15:20	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 15:20	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/14/23 08:21	04/18/23 15:20	1
Phenanthrene	ND		0.20	0.036	ug/L		04/14/23 08:21	04/18/23 15:20	1
Pyrene	ND		0.20	0.040	ug/L		04/14/23 08:21	04/18/23 15:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/14/23 08:21*	*04/18/23 15:20*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/14/23 08:21*	*04/18/23 15:20*	*1*
Terphenyl-d14	*134*		*33 - 138*	*04/14/23 08:21*	*04/18/23 15:20*	*1*

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	103		ug/L		86	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	122		ug/L		102	49 - 120
Benzo[a]anthracene	120	122		ug/L		102	61 - 135
Benzo[a]pyrene	120	121		ug/L		101	52 - 120
Benzo[b]fluoranthene	120	118		ug/L		99	53 - 134
Benzo[g,h,i]perylene	120	123		ug/L		102	47 - 133
Benzo[k]fluoranthene	120	99.5		ug/L		83	57 - 134
Chrysene	120	112		ug/L		94	55 - 122
Dibenz(a,h)anthracene	120	130		ug/L		109	48 - 146
Fluoranthene	120	119		ug/L		99	54 - 128
Fluorene	120	123		ug/L		102	45 - 125
Indeno[1,2,3-cd]pyrene	120	116		ug/L		97	43 - 142
1-Methylnaphthalene	120	105		ug/L		88	41 - 120
2-Methylnaphthalene	120	108		ug/L		90	32 - 124
Phenanthrene	120	110		ug/L		92	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*15 - 122*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	78		19 - 130
Terphenyl-d14	94		33 - 138

Lab Sample ID: 400-235945-8 MS
Matrix: Water
Analysis Batch: 621246

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		119	112		ug/L		95	35 - 113
Acenaphthylene	0.090	J	119	125		ug/L		105	41 - 118
Anthracene	ND		119	124		ug/L		104	45 - 122
Benzo[a]anthracene	0.18	J	119	127		ug/L		107	55 - 133
Benzo[a]pyrene	ND		119	121		ug/L		102	50 - 108
Benzo[b]fluoranthene	0.17	J	119	118		ug/L		99	50 - 128
Benzo[g,h,i]perylene	ND		119	124		ug/L		104	46 - 133
Benzo[k]fluoranthene	ND		119	112		ug/L		94	52 - 128
Chrysene	0.076	J	119	114		ug/L		96	52 - 116
Dibenz(a,h)anthracene	ND		119	132		ug/L		111	52 - 143
Fluoranthene	ND		119	120		ug/L		101	32 - 150
Fluorene	ND		119	133		ug/L		112	15 - 150
Indeno[1,2,3-cd]pyrene	ND		119	122		ug/L		103	41 - 141
1-Methylnaphthalene	0.090	J	119	110		ug/L		92	10 - 150
2-Methylnaphthalene	ND		119	111		ug/L		94	10 - 150
Phenanthrene	ND		119	116		ug/L		97	36 - 125
Pyrene	ND		119	118		ug/L		99	41 - 127

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	89		15 - 122
Nitrobenzene-d5	83		19 - 130
Terphenyl-d14	99		33 - 138

Lab Sample ID: 400-235945-8 MSD
Matrix: Water
Analysis Batch: 621246

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		120	112		ug/L		93	35 - 113	1	49
Acenaphthylene	0.090	J	120	118		ug/L		98	41 - 118	5	48
Anthracene	ND		120	121		ug/L		101	45 - 122	2	56
Benzo[a]anthracene	0.18	J	120	128		ug/L		106	55 - 133	0	57
Benzo[a]pyrene	ND		120	119		ug/L		99	50 - 108	1	59
Benzo[b]fluoranthene	0.17	J	120	113		ug/L		94	50 - 128	4	62
Benzo[g,h,i]perylene	ND		120	119		ug/L		99	46 - 133	4	58
Benzo[k]fluoranthene	ND		120	98.7		ug/L		82	52 - 128	13	58
Chrysene	0.076	J	120	114		ug/L		95	52 - 116	1	59
Dibenz(a,h)anthracene	ND		120	133		ug/L		111	52 - 143	1	60
Fluoranthene	ND		120	122		ug/L		101	32 - 150	1	59
Fluorene	ND		120	129		ug/L		107	15 - 150	3	49

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 400-235945-8 MSD
Matrix: Water
Analysis Batch: 621246

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene	ND		120	118		ug/L		99	41 - 141	3	58
1-Methylnaphthalene	0.090	J	120	110		ug/L		92	10 - 150	0	66
2-Methylnaphthalene	ND		120	115		ug/L		96	10 - 150	3	66
Phenanthrene	ND		120	114		ug/L		95	36 - 125	1	69
Pyrene	ND		120	117		ug/L		97	41 - 127	1	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*15 - 122*
Nitrobenzene-d5	*86*		*19 - 130*
Terphenyl-d14	*94*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-621501/1-A
Matrix: Water
Analysis Batch: 621525

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/19/23 12:33	04/19/23 14:43	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/19/23 12:33	04/19/23 14:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*77*		*51 - 149*	*04/19/23 12:33*	*04/19/23 14:43*	*1*

Lab Sample ID: LCS 400-621501/2-A
Matrix: Water
Analysis Batch: 621525

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621501

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.127		ug/L		127	60 - 140		
1,2-D bromoethane			0.101	0.0973		ug/L		97	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*81*		*51 - 149*

Lab Sample ID: LCSD 400-621501/3-A
Matrix: Water
Analysis Batch: 621525

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621501

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.134		ug/L		133	60 - 140	5	30
1,2-D bromoethane			0.101	0.103		ug/L		103	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-235945-8 MS
Matrix: Water
Analysis Batch: 621525

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 621501

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane	ND	F1 F2	0.0999	0.154	F1	ug/L		154	10 - 150		
1,2-D bromoethane	ND	F2	0.100	0.108		ug/L		108	39 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*51 - 149*

Lab Sample ID: 400-235945-8 MSD
Matrix: Water
Analysis Batch: 621525

Client Sample ID: ROST3MW-ROX-041123
Prep Type: Total/NA
Prep Batch: 621501

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane	ND	F1 F2	0.133	0.196	F2	ug/L		147	10 - 150	24	20
1,2-D bromoethane	ND	F2	0.134	0.142	F2	ug/L		106	39 - 150	27	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/11/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60697537 – 3.2.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location)	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):	SAMPLER NAME(S) (Print):	LAB USE ONLY
Melissa Remiger, Mary Massa, Brett Howell	M. Massa, T. Jenkins	

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

400-235945 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 0.4 0.5 0.9 IR11

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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041123-8260	4/11/2023	0000	Water	2					2	X			
	TB-ROX-041123-8011	4/11/2023	0000	Water	2					2		X		
	MW6D-ROX-041123	4/11/2023	0915	Water	6			2		8	X	X	X	X
	MW6C-ROX-041123	4/11/2023	1015	Water	6			2		8	X	X	X	X
	MW6A-ROX-041123	4/11/2023	1115	Water	6			2		8	X	X	X	X
	MW6A-ROX-041123-DUP	4/11/2023	1115	Water	6			2		8	X	X	X	X
	MW6B-ROX-041123	4/11/2023	1210	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-041123	4/11/2023	1335	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-041123-MS	4/11/2023	1335	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-041123-MSD	4/11/2023	1335	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 9840, 5564 3932 9830, 5564 3932 9829	4/11/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4.12.23	9:13
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1599696, 1599697, 1599698, 1599699, 1599700, 1599701

5/8/2023 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-235945-1

Login Number: 235945 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4°C, 0.5°C, 0.9°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-235945-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236042-1-Rev. 1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/30/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041223-8260	P54-ROX-041223
TB-ROX-041223-8011	P54-ROX-041223-DUP
MW14-ROX-041223	--

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 diethyl phthalate was detected in method blank MB 400-620825/1-A. VOC and SVOC LCS/LCSD recoveries were outside evaluation criteria. The continuing calibration verification (CCV) for hexachlorochclopentadiene and dibenz(a,h)acridine were outside evaluation criteria, biased low. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on 4/27/2023 to correctly report benzoic acid in sample P54-ROX-041223-DUP; initial benzoic acid results were identified by the laboratory as a false positive.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-620825/1-A	SVOCs	Diethyl phthalate	0.431 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P54-ROX-041223	SVOCs	Diethyl phthalate	-	**U**
P54-ROX-041223-DUP	SVOCs	Diethyl 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
LCS 400-622045/1002	VOCs	Vinyl acetate	**170**	NA	26-160
LCS/LCSD 400-620825/25-A/26-A	SVOCs	Benzenethiol	**5/5**	15	10-120/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-041223	SVOCs	Benzenethiol	**UJ**
P54-ROX-041223	SVOCs	Benzenethiol	**UJ**
P54-ROX-041223-DUP	SVOCs	Benzenethiol	**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
P54-ROX-041223	P54-ROX-041223-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; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for dibenz[a,h]acridine and hexachlorocyclopentadiene were outside evaluation criteria, biased low. The initial calibration verification (ICV) for Bromomethane was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-041223	VOCs	Bromomethane	**UJ**
P54-ROX-041223	VOCs	Bromomethane	**UJ**
P54-ROX-041223-DUP	VOCs	Bromomethane	**UJ**
MW14-ROX-041223	SVOCs	Hexachlorocyclopentadiene	**UJ**
P54-ROX-041223	SVOCs	Hexachlorocyclopentadiene	**UJ**
P54-ROX-041223-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW14-ROX-041223	SVOCs	Dibenz[a,h]acridine	**UJ**
P54-ROX-041223	SVOCs	Dibenz[a,h]acridine	**UJ**
P54-ROX-041223-DUP	SVOCs	Dibenz[a,h]acridine	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Generated 4/27/2023 8:56:01 AM Revision 1

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236042-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
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Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 23
Surrogate Summary 24
Method Summary 26
Chronicle 27
QC Association 30
QC Sample Results 32
Chain of Custody 41
Receipt Checklists 42
Certification Summary 43

Job ID: 400-236042-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236042-1

Comment
Revised Report
Report revised to correct benzoic acid result reported in P54-ROX-041223-DUP (400-236042-5).
Supersedes report dated 4-26-2023

Receipt
The samples were received on 4/13/2023 9:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C

GC/MS VOA
Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-613356 was outside method criteria for the following analyte(s): Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-622045 recovered above the upper control limit for Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-622045 recovered outside control limits for the following analytes: Vinyl acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041223-8260 (400-236042-1), MW14-ROX-041223 (400-236042-3), P54-ROX-041223 (400-236042-4) and P54-ROX-041223-DUP (400-236042-5). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-620825 and analytical batch 400-621130 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621130 recovered above the upper control limit for Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621130 recovered outside acceptance criteria, low biased, for Dibenz[a,h]acridine and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The method blank for preparation batch 400-620825 and analytical batch 400-621130 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D_LL: The continuing calibration verification (CCV) associated with batch 400-621246 recovered above the upper control limit for Dibenz(a,h)anthracene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Job ID: 400-236042-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-621824 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236042-1	TB-ROX-041223-8260	Water	04/12/23 12:00	04/13/23 09:18
400-236042-2	TB-ROX-041223-8011	Water	04/12/23 12:00	04/13/23 09:18
400-236042-3	MW14-ROX-041223	Water	04/12/23 09:30	04/13/23 09:18
400-236042-4	P54-ROX-041223	Water	04/12/23 11:40	04/13/23 09:18
400-236042-5	P54-ROX-041223-DUP	Water	04/12/23 11:40	04/13/23 09:18

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: TB-ROX-041223-8260 — Lab Sample ID: 400-236042-1

No Detections.

Client Sample ID: TB-ROX-041223-8011 — Lab Sample ID: 400-236042-2

No Detections.

Client Sample ID: MW14-ROX-041223 — Lab Sample ID: 400-236042-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J	25	10	ug/L	1		8260B	Total/NA
Benzene	0.52	J	1.0	0.13	ug/L	1		8260B	Total/NA

Client Sample ID: P54-ROX-041223 — Lab Sample ID: 400-236042-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.36	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.30	J B U	9.9	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: P54-ROX-041223-DUP — Lab Sample ID: 400-236042-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.37	J	1.0	0.13	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.29	J B U	9.7	0.23	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: TB-ROX-041223-8260
Date Collected: 04/12/23 12:00
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/24/23 23:13	1
Acrolein	ND		20	3.3	ug/L			04/24/23 23:13	1
Acrylonitrile	ND		10	2.8	ug/L			04/24/23 23:13	1
Benzene	ND		1.0	0.13	ug/L			04/24/23 23:13	1
Bromobenzene	ND		1.0	0.54	ug/L			04/24/23 23:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/24/23 23:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/24/23 23:13	1
Bromoform	ND		5.0	0.25	ug/L			04/24/23 23:13	1
Bromomethane	ND		1.0	0.98	ug/L			04/24/23 23:13	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/24/23 23:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/24/23 23:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/24/23 23:13	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/24/23 23:13	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/24/23 23:13	1
Chloroethane	ND		1.0	0.76	ug/L			04/24/23 23:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/24/23 23:13	1
Chloroform	ND		1.0	1.0	ug/L			04/24/23 23:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/24/23 23:13	1
Chloromethane	ND		1.0	0.32	ug/L			04/24/23 23:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/24/23 23:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/24/23 23:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/24/23 23:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/24/23 23:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/24/23 23:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/24/23 23:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/24/23 23:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/24/23 23:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 23:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/24/23 23:13	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/24/23 23:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/24/23 23:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/24/23 23:13	1
2-Hexanone	ND		25	1.4	ug/L			04/24/23 23:13	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/24/23 23:13	1
Methylene bromide	ND		5.0	0.22	ug/L			04/24/23 23:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/24/23 23:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/24/23 23:13	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/24/23 23:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/24/23 23:13	1
Naphthalene	ND		5.0	3.0	ug/L			04/24/23 23:13	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/24/23 23:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/24/23 23:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/24/23 23:13	1
o-Xylene	ND		5.0	0.60	ug/L			04/24/23 23:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/24/23 23:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/24/23 23:13	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: TB-ROX-041223-8260
Date Collected: 04/12/23 12:00
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/24/23 23:13	1
Styrene	ND		1.0	1.0	ug/L			04/24/23 23:13	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/24/23 23:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/24/23 23:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/24/23 23:13	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/24/23 23:13	1
Toluene	ND		1.0	0.41	ug/L			04/24/23 23:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 23:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/24/23 23:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/24/23 23:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/24/23 23:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/24/23 23:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/24/23 23:13	1
Trichloroethene	ND		1.0	0.15	ug/L			04/24/23 23:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/24/23 23:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/24/23 23:13	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/24/23 23:13	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/24/23 23:13	1
Vinyl acetate	ND	*+	25	0.93	ug/L			04/24/23 23:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/24/23 23:13	1
Xylenes, Total	ND		10	1.6	ug/L			04/24/23 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/24/23 23:13*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*04/24/23 23:13*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/24/23 23:13*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: TB-ROX-041223-8011
Date Collected: 04/12/23 12:00
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/21/23 11:59	04/21/23 17:15	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/21/23 11:59	04/21/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*04/21/23 11:59*	*04/21/23 17:15*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: MW14-ROX-041223
Date Collected: 04/12/23 09:30
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**11**	**J**	25	10	ug/L			04/24/23 23:35	1
Acrolein	ND		20	3.3	ug/L			04/24/23 23:35	1
Acrylonitrile	ND		10	2.8	ug/L			04/24/23 23:35	1
Benzene	**0.52**	**J**	1.0	0.13	ug/L			04/24/23 23:35	1
Bromobenzene	ND		1.0	0.54	ug/L			04/24/23 23:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/24/23 23:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/24/23 23:35	1
Bromoform	ND		5.0	0.25	ug/L			04/24/23 23:35	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/24/23 23:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/24/23 23:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/24/23 23:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/24/23 23:35	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/24/23 23:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/24/23 23:35	1
Chloroethane	ND		1.0	0.76	ug/L			04/24/23 23:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/24/23 23:35	1
Chloroform	ND		1.0	1.0	ug/L			04/24/23 23:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/24/23 23:35	1
Chloromethane	ND		1.0	0.32	ug/L			04/24/23 23:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/24/23 23:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/24/23 23:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/24/23 23:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/24/23 23:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/24/23 23:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/24/23 23:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/24/23 23:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/24/23 23:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 23:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/24/23 23:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/24/23 23:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/24/23 23:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/24/23 23:35	1
2-Hexanone	ND		25	1.4	ug/L			04/24/23 23:35	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/24/23 23:35	1
Methylene bromide	ND		5.0	0.22	ug/L			04/24/23 23:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/24/23 23:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/24/23 23:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/24/23 23:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/24/23 23:35	1
Naphthalene	ND		5.0	3.0	ug/L			04/24/23 23:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/24/23 23:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/24/23 23:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/24/23 23:35	1
o-Xylene	ND		5.0	0.60	ug/L			04/24/23 23:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/24/23 23:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/24/23 23:35	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: MW14-ROX-041223
Date Collected: 04/12/23 09:30
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/24/23 23:35	1
Styrene	ND		1.0	1.0	ug/L			04/24/23 23:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/24/23 23:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/24/23 23:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/24/23 23:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/24/23 23:35	1
Toluene	ND		1.0	0.41	ug/L			04/24/23 23:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 23:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/24/23 23:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/24/23 23:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/24/23 23:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/24/23 23:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/24/23 23:35	1
Trichloroethene	ND		1.0	0.15	ug/L			04/24/23 23:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/24/23 23:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/24/23 23:35	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/24/23 23:35	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/24/23 23:35	1
Vinyl acetate	ND	*+	25	0.93	ug/L			04/24/23 23:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/24/23 23:35	1
Xylenes, Total	ND		10	1.6	ug/L			04/24/23 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*04/24/23 23:35*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*04/24/23 23:35*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/24/23 23:35*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/14/23 08:21	04/18/23 18:13	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/14/23 08:21	04/18/23 18:13	1
Anthracene	ND		0.19	0.031	ug/L		04/14/23 08:21	04/18/23 18:13	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/14/23 08:21	04/18/23 18:13	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/14/23 08:21	04/18/23 18:13	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/14/23 08:21	04/18/23 18:13	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/14/23 08:21	04/18/23 18:13	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/14/23 08:21	04/18/23 18:13	1
Chrysene	ND		0.19	0.072	ug/L		04/14/23 08:21	04/18/23 18:13	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/14/23 08:21	04/18/23 18:13	1
Fluoranthene	ND		0.19	0.066	ug/L		04/14/23 08:21	04/18/23 18:13	1
Fluorene	ND		0.19	0.11	ug/L		04/14/23 08:21	04/18/23 18:13	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/14/23 08:21	04/18/23 18:13	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/14/23 08:21	04/18/23 18:13	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/14/23 08:21	04/18/23 18:13	1
Phenanthrene	ND		0.19	0.035	ug/L		04/14/23 08:21	04/18/23 18:13	1
Pyrene	ND		0.19	0.039	ug/L		04/14/23 08:21	04/18/23 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*15 - 122*	*04/14/23 08:21*	*04/18/23 18:13*	*1*
Nitrobenzene-d5	*81*		*19 - 130*	*04/14/23 08:21*	*04/18/23 18:13*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: MW14-ROX-041223
Date Collected: 04/12/23 09:30
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	106		33 - 138	04/14/23 08:21	04/18/23 18:13	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/14/23 08:21	04/17/23 19:29	1
Benzenethiol	ND	*- UJ	9.7	1.7	ug/L		04/14/23 08:21	04/17/23 19:29	1
Benzoic acid	ND		29	7.1	ug/L		04/14/23 08:21	04/17/23 19:29	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 19:29	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 19:29	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/14/23 08:21	04/17/23 19:29	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 19:29	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/14/23 08:21	04/17/23 19:29	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/14/23 08:21	04/17/23 19:29	1
Butyl benzyl phthalate	ND		9.7	0.19	ug/L		04/14/23 08:21	04/17/23 19:29	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/14/23 08:21	04/17/23 19:29	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/14/23 08:21	04/17/23 19:29	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/14/23 08:21	04/17/23 19:29	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/14/23 08:21	04/17/23 19:29	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 19:29	1
Dibenz[a,h]acridine	ND	UJ	9.7	0.97	ug/L		04/14/23 08:21	04/17/23 19:29	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/14/23 08:21	04/17/23 19:29	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/14/23 08:21	04/17/23 19:29	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/14/23 08:21	04/17/23 19:29	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/14/23 08:21	04/17/23 19:29	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 19:29	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/14/23 08:21	04/17/23 19:29	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/14/23 08:21	04/17/23 19:29	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/14/23 08:21	04/17/23 19:29	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/14/23 08:21	04/17/23 19:29	1
2,4-Dinitrotoluene	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 19:29	1
2,6-Dinitrotoluene	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 19:29	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/14/23 08:21	04/17/23 19:29	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 19:29	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 19:29	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/14/23 08:21	04/17/23 19:29	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/14/23 08:21	04/17/23 19:29	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/14/23 08:21	04/17/23 19:29	1
Indene	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 19:29	1
Isophorone	ND		9.7	0.14	ug/L		04/14/23 08:21	04/17/23 19:29	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/14/23 08:21	04/17/23 19:29	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/14/23 08:21	04/17/23 19:29	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/14/23 08:21	04/17/23 19:29	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/14/23 08:21	04/17/23 19:29	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/14/23 08:21	04/17/23 19:29	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/14/23 08:21	04/17/23 19:29	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/14/23 08:21	04/17/23 19:29	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/14/23 08:21	04/17/23 19:29	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 19:29	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: MW14-ROX-041223
Date Collected: 04/12/23 09:30
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/14/23 08:21	04/17/23 19:29	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/14/23 08:21	04/17/23 19:29	1
Pentachlorophenol	ND		19	1.4	ug/L		04/14/23 08:21	04/17/23 19:29	1
Phenol	ND		9.7	2.5	ug/L		04/14/23 08:21	04/17/23 19:29	1
Pyridine	ND		9.7	3.1	ug/L		04/14/23 08:21	04/17/23 19:29	1
Quinoline	ND		9.7	4.4	ug/L		04/14/23 08:21	04/17/23 19:29	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/14/23 08:21	04/17/23 19:29	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*04/14/23 08:21*	*04/17/23 19:29*	*1*
2-Fluorophenol	*18*		*13 - 113*	*04/14/23 08:21*	*04/17/23 19:29*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/14/23 08:21*	*04/17/23 19:29*	*1*
Phenol-d5	*52*		*17 - 127*	*04/14/23 08:21*	*04/17/23 19:29*	*1*
Terphenyl-d14	*95*		*44 - 149*	*04/14/23 08:21*	*04/17/23 19:29*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*04/14/23 08:21*	*04/17/23 19:29*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/21/23 11:59	04/21/23 17:36	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/21/23 11:59	04/21/23 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*04/21/23 11:59*	*04/21/23 17:36*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: P54-ROX-041223
Date Collected: 04/12/23 11:40
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/24/23 23:58	1
Acrolein	ND		20	3.3	ug/L			04/24/23 23:58	1
Acrylonitrile	ND		10	2.8	ug/L			04/24/23 23:58	1
Benzene	**0.36**	**J**	1.0	0.13	ug/L			04/24/23 23:58	1
Bromobenzene	ND		1.0	0.54	ug/L			04/24/23 23:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/24/23 23:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/24/23 23:58	1
Bromoform	ND		5.0	0.25	ug/L			04/24/23 23:58	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/24/23 23:58	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/24/23 23:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/24/23 23:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/24/23 23:58	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/24/23 23:58	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/24/23 23:58	1
Chloroethane	ND		1.0	0.76	ug/L			04/24/23 23:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/24/23 23:58	1
Chloroform	ND		1.0	1.0	ug/L			04/24/23 23:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/24/23 23:58	1
Chloromethane	ND		1.0	0.32	ug/L			04/24/23 23:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/24/23 23:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/24/23 23:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/24/23 23:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/24/23 23:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/24/23 23:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/24/23 23:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/24/23 23:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/24/23 23:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 23:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 23:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/24/23 23:58	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/24/23 23:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/24/23 23:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/24/23 23:58	1
2-Hexanone	ND		25	1.4	ug/L			04/24/23 23:58	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/24/23 23:58	1
Methylene bromide	ND		5.0	0.22	ug/L			04/24/23 23:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/24/23 23:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/24/23 23:58	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/24/23 23:58	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/24/23 23:58	1
Naphthalene	ND		5.0	3.0	ug/L			04/24/23 23:58	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/24/23 23:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/24/23 23:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/24/23 23:58	1
o-Xylene	ND		5.0	0.60	ug/L			04/24/23 23:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/24/23 23:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/24/23 23:58	1

Client Sample ID: P54-ROX-041223
Date Collected: 04/12/23 11:40
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/24/23 23:58	1
Styrene	ND		1.0	1.0	ug/L			04/24/23 23:58	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/24/23 23:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/24/23 23:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/24/23 23:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/24/23 23:58	1
Toluene	ND		1.0	0.41	ug/L			04/24/23 23:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 23:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/24/23 23:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/24/23 23:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/24/23 23:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/24/23 23:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/24/23 23:58	1
Trichloroethene	ND		1.0	0.15	ug/L			04/24/23 23:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/24/23 23:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/24/23 23:58	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/24/23 23:58	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/24/23 23:58	1
Vinyl acetate	ND	*+	25	0.93	ug/L			04/24/23 23:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/24/23 23:58	1
Xylenes, Total	ND		10	1.6	ug/L			04/24/23 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/24/23 23:58*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*04/24/23 23:58*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/24/23 23:58*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 18:31	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/14/23 08:21	04/18/23 18:31	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 18:31	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 18:31	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/14/23 08:21	04/18/23 18:31	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 18:31	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 18:31	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/14/23 08:21	04/18/23 18:31	1
Chrysene	ND		0.20	0.073	ug/L		04/14/23 08:21	04/18/23 18:31	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/14/23 08:21	04/18/23 18:31	1
Fluoranthene	ND		0.20	0.067	ug/L		04/14/23 08:21	04/18/23 18:31	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 18:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 18:31	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/14/23 08:21	04/18/23 18:31	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/14/23 08:21	04/18/23 18:31	1
Phenanthrene	ND		0.20	0.035	ug/L		04/14/23 08:21	04/18/23 18:31	1
Pyrene	ND		0.20	0.039	ug/L		04/14/23 08:21	04/18/23 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*105*		*15 - 122*	*04/14/23 08:21*	*04/18/23 18:31*	*1*
Nitrobenzene-d5	*100*		*19 - 130*	*04/14/23 08:21*	*04/18/23 18:31*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: P54-ROX-041223
Date Collected: 04/12/23 11:40
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	103		33 - 138	04/14/23 08:21	04/18/23 18:31	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/14/23 08:21	04/17/23 19:50	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/14/23 08:21	04/17/23 19:50	1
Benzoic acid	ND		30	7.2	ug/L		04/14/23 08:21	04/17/23 19:50	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/14/23 08:21	04/17/23 19:50	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/14/23 08:21	04/17/23 19:50	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/14/23 08:21	04/17/23 19:50	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/14/23 08:21	04/17/23 19:50	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/14/23 08:21	04/17/23 19:50	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/14/23 08:21	04/17/23 19:50	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/14/23 08:21	04/17/23 19:50	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/14/23 08:21	04/17/23 19:50	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/14/23 08:21	04/17/23 19:50	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/14/23 08:21	04/17/23 19:50	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/14/23 08:21	04/17/23 19:50	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/14/23 08:21	04/17/23 19:50	1
Dibenz[a,h]acridine	ND	UJ	9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:50	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:50	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/14/23 08:21	04/17/23 19:50	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/14/23 08:21	04/17/23 19:50	1
Diethyl phthalate	**0.30**	**J B** U	9.9	0.24	ug/L		04/14/23 08:21	04/17/23 19:50	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 19:50	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:50	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/14/23 08:21	04/17/23 19:50	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/14/23 08:21	04/17/23 19:50	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/14/23 08:21	04/17/23 19:50	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/14/23 08:21	04/17/23 19:50	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/14/23 08:21	04/17/23 19:50	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:50	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:50	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/14/23 08:21	04/17/23 19:50	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/14/23 08:21	04/17/23 19:50	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/14/23 08:21	04/17/23 19:50	1
Indene	ND		9.9	0.99	ug/L		04/14/23 08:21	04/17/23 19:50	1
Isophorone	ND		9.9	0.14	ug/L		04/14/23 08:21	04/17/23 19:50	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/14/23 08:21	04/17/23 19:50	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/14/23 08:21	04/17/23 19:50	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/14/23 08:21	04/17/23 19:50	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/14/23 08:21	04/17/23 19:50	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/14/23 08:21	04/17/23 19:50	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/14/23 08:21	04/17/23 19:50	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/14/23 08:21	04/17/23 19:50	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/14/23 08:21	04/17/23 19:50	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 19:50	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: P54-ROX-041223
Date Collected: 04/12/23 11:40
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/14/23 08:21	04/17/23 19:50	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/14/23 08:21	04/17/23 19:50	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 19:50	1
Phenol	ND		9.9	2.6	ug/L		04/14/23 08:21	04/17/23 19:50	1
Pyridine	ND		9.9	3.2	ug/L		04/14/23 08:21	04/17/23 19:50	1
Quinoline	ND		9.9	4.4	ug/L		04/14/23 08:21	04/17/23 19:50	1
2,4,5-Trichlorophenol	ND		9.9	3.6	ug/L		04/14/23 08:21	04/17/23 19:50	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/14/23 08:21	04/17/23 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*46 - 124*	*04/14/23 08:21*	*04/17/23 19:50*	*1*
2-Fluorophenol	*47*		*13 - 113*	*04/14/23 08:21*	*04/17/23 19:50*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*04/14/23 08:21*	*04/17/23 19:50*	*1*
Phenol-d5	*67*		*17 - 127*	*04/14/23 08:21*	*04/17/23 19:50*	*1*
Terphenyl-d14	*80*		*44 - 149*	*04/14/23 08:21*	*04/17/23 19:50*	*1*
2,4,6-Tribromophenol	*59*		*26 - 150*	*04/14/23 08:21*	*04/17/23 19:50*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/21/23 11:59	04/21/23 18:17	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/21/23 11:59	04/21/23 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*51 - 149*	*04/21/23 11:59*	*04/21/23 18:17*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: P54-ROX-041223-DUP

Date Collected: 04/12/23 11:40
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-5

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 00:21	1
Acrolein	ND		20	3.3	ug/L			04/25/23 00:21	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 00:21	1
Benzene	**0.37**	**J**	1.0	0.13	ug/L			04/25/23 00:21	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 00:21	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 00:21	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 00:21	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 00:21	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/25/23 00:21	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 00:21	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 00:21	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 00:21	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 00:21	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 00:21	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 00:21	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 00:21	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 00:21	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 00:21	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 00:21	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 00:21	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 00:21	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 00:21	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 00:21	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 00:21	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 00:21	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 00:21	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 00:21	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 00:21	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 00:21	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 00:21	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 00:21	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 00:21	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 00:21	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 00:21	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 00:21	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 00:21	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 00:21	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 00:21	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 00:21	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 00:21	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/25/23 00:21	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 00:21	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 00:21	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 00:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 00:21	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 00:21	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 00:21	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 00:21	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 00:21	1

Client Sample ID: P54-ROX-041223-DUP
Date Collected: 04/12/23 11:40
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 00:21	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 00:21	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 00:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 00:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 00:21	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 00:21	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 00:21	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 00:21	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 00:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 00:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 00:21	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 00:21	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 00:21	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 00:21	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 00:21	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 00:21	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 00:21	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 00:21	1
Vinyl acetate	ND	*+	25	0.93	ug/L			04/25/23 00:21	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 00:21	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/25/23 00:21*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*04/25/23 00:21*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/25/23 00:21*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/14/23 08:21	04/18/23 18:48	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/14/23 08:21	04/18/23 18:48	1
Anthracene	ND		0.19	0.031	ug/L		04/14/23 08:21	04/18/23 18:48	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/14/23 08:21	04/18/23 18:48	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/14/23 08:21	04/18/23 18:48	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/14/23 08:21	04/18/23 18:48	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/14/23 08:21	04/18/23 18:48	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/14/23 08:21	04/18/23 18:48	1
Chrysene	ND		0.19	0.072	ug/L		04/14/23 08:21	04/18/23 18:48	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/14/23 08:21	04/18/23 18:48	1
Fluoranthene	ND		0.19	0.066	ug/L		04/14/23 08:21	04/18/23 18:48	1
Fluorene	ND		0.19	0.11	ug/L		04/14/23 08:21	04/18/23 18:48	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/14/23 08:21	04/18/23 18:48	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/14/23 08:21	04/18/23 18:48	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/14/23 08:21	04/18/23 18:48	1
Phenanthrene	ND		0.19	0.035	ug/L		04/14/23 08:21	04/18/23 18:48	1
Pyrene	ND		0.19	0.039	ug/L		04/14/23 08:21	04/18/23 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*15 - 122*	*04/14/23 08:21*	*04/18/23 18:48*	*1*
Nitrobenzene-d5	*97*		*19 - 130*	*04/14/23 08:21*	*04/18/23 18:48*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: P54-ROX-041223-DUP
Date Collected: 04/12/23 11:40
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236042-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*129*		*33 - 138*	*04/14/23 08:21*	*04/18/23 18:48*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/14/23 08:21	04/17/23 20:12	1
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/14/23 08:21	04/17/23 20:12	1
Benzoic acid	ND		29	7.1	ug/L		04/14/23 08:21	04/17/23 20:12	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 20:12	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		04/14/23 08:21	04/17/23 20:12	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/14/23 08:21	04/17/23 20:12	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		04/14/23 08:21	04/17/23 20:12	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/14/23 08:21	04/17/23 20:12	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/14/23 08:21	04/17/23 20:12	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/14/23 08:21	04/17/23 20:12	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/14/23 08:21	04/17/23 20:12	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/14/23 08:21	04/17/23 20:12	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/14/23 08:21	04/17/23 20:12	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/14/23 08:21	04/17/23 20:12	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/14/23 08:21	04/17/23 20:12	1
Dibenz[a,h]acridine	ND	UJ	9.7	0.97	ug/L		04/14/23 08:21	04/17/23 20:12	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 20:12	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/14/23 08:21	04/17/23 20:12	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/14/23 08:21	04/17/23 20:12	1
Diethyl phthalate	**0.29**	**J B** U	9.7	0.23	ug/L		04/14/23 08:21	04/17/23 20:12	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 20:12	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 20:12	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/14/23 08:21	04/17/23 20:12	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		04/14/23 08:21	04/17/23 20:12	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/14/23 08:21	04/17/23 20:12	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/14/23 08:21	04/17/23 20:12	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/14/23 08:21	04/17/23 20:12	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 20:12	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 20:12	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 20:12	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/14/23 08:21	04/17/23 20:12	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/14/23 08:21	04/17/23 20:12	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/14/23 08:21	04/17/23 20:12	1
Indene	ND		9.7	0.97	ug/L		04/14/23 08:21	04/17/23 20:12	1
Isophorone	ND		9.7	0.14	ug/L		04/14/23 08:21	04/17/23 20:12	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/14/23 08:21	04/17/23 20:12	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/14/23 08:21	04/17/23 20:12	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/14/23 08:21	04/17/23 20:12	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/14/23 08:21	04/17/23 20:12	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/14/23 08:21	04/17/23 20:12	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/14/23 08:21	04/17/23 20:12	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/14/23 08:21	04/17/23 20:12	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/14/23 08:21	04/17/23 20:12	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 20:12	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: P54-ROX-041223-DUP

Lab Sample ID: 400-236042-5

Date Collected: 04/12/23 11:40

Matrix: Water

Date Received: 04/13/23 09:18

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/14/23 08:21	04/17/23 20:12	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/14/23 08:21	04/17/23 20:12	1
Pentachlorophenol	ND		19	1.4	ug/L		04/14/23 08:21	04/17/23 20:12	1
Phenol	ND		9.7	2.5	ug/L		04/14/23 08:21	04/17/23 20:12	1
Pyridine	ND		9.7	3.1	ug/L		04/14/23 08:21	04/17/23 20:12	1
Quinoline	ND		9.7	4.4	ug/L		04/14/23 08:21	04/17/23 20:12	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/14/23 08:21	04/17/23 20:12	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/14/23 08:21	04/17/23 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*04/14/23 08:21*	*04/17/23 20:12*	*1*
2-Fluorophenol	*14*		*13 - 113*	*04/14/23 08:21*	*04/17/23 20:12*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*04/14/23 08:21*	*04/17/23 20:12*	*1*
Phenol-d5	*49*		*17 - 127*	*04/14/23 08:21*	*04/17/23 20:12*	*1*
Terphenyl-d14	*96*		*44 - 149*	*04/14/23 08:21*	*04/17/23 20:12*	*1*
2,4,6-Tribromophenol	*68*		*26 - 150*	*04/14/23 08:21*	*04/17/23 20:12*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/21/23 11:59	04/21/23 18:37	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/21/23 11:59	04/21/23 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*04/21/23 11:59*	*04/21/23 18:37*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-236042-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236042-1	TB-ROX-041223-8260	104	105	94
400-236042-3	MW14-ROX-041223	106	106	94
400-236042-4	P54-ROX-041223	108	107	94
400-236042-5	P54-ROX-041223-DUP	107	105	95
LCS 400-622045/1002	Lab Control Sample	110	100	95
MB 400-622045/4	Method Blank	106	103	94

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236042-3	MW14-ROX-041223	79	18	78	52	95	72
400-236042-4	P54-ROX-041223	86	47	86	67	80	59
400-236042-5	P54-ROX-041223-DUP	84	14	82	49	96	68
LCS 400-620825/25-A	Lab Control Sample	83	32	83	64	97	61
LCS 400-620825/2-A	Lab Control Sample	89	32	83	67	94	86
LCSD 400-620825/26-A	Lab Control Sample Dup	88	38	85	71	99	38
MB 400-620825/1-A	Method Blank	88	13	88	58	100	43

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236042-3	MW14-ROX-041223	86	81	106
400-236042-4	P54-ROX-041223	105	100	103
400-236042-5	P54-ROX-041223-DUP	104	97	129
LCS 400-620825/2-A	Lab Control Sample	87	78	94
MB 400-620825/1-A	Method Blank	110	108	134

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB2 (51-149)
400-236042-2	TB-ROX-041223-8011	99
400-236042-3	MW14-ROX-041223	110
400-236042-4	P54-ROX-041223	103
400-236042-5	P54-ROX-041223-DUP	94
LCS 400-621798/2-A	Lab Control Sample	96
LCSD 400-621798/3-A	Lab Control Sample Dup	98
MB 400-621798/1-A	Method Blank	86

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: TB-ROX-041223-8260
Lab Sample ID: 400-236042-1
Date Collected: 04/12/23 12:00
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622045	04/24/23 23:13	WPD	EET PEN

Client Sample ID: TB-ROX-041223-8011
Lab Sample ID: 400-236042-2
Date Collected: 04/12/23 12:00
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.5 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 17:15	PG	EET PEN

Client Sample ID: MW14-ROX-041223
Lab Sample ID: 400-236042-3
Date Collected: 04/12/23 09:30
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622045	04/24/23 23:35	WPD	EET PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 19:29	S1B	EET PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 18:13	PP1	EET PEN
Total/NA	Prep	8011			35.9 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 17:36	PG	EET PEN

Client Sample ID: P54-ROX-041223
Lab Sample ID: 400-236042-4
Date Collected: 04/12/23 11:40
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622045	04/24/23 23:58	WPD	EET PEN
Total/NA	Prep	3520C			253.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 19:50	S1B	EET PEN
Total/NA	Prep	3520C			253.6 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 18:31	PP1	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 18:17	PG	EET PEN

Client Sample ID: P54-ROX-041223-DUP
Lab Sample ID: 400-236042-5
Date Collected: 04/12/23 11:40
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622045	04/25/23 00:21	WPD	EET PEN
Total/NA	Prep	3520C			258.2 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 20:12	S1B	EET PEN

Client Sample ID: P54-ROX-041223-DUP
Lab Sample ID: 400-236042-5

Date Collected: 04/12/23 11:40
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			258.2 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 18:48	PP1	EET PEN
Total/NA	Prep	8011			34.6 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 18:37	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-620825/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 15:09	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 15:20	PP1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621798/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 14:31	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622045/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622045	04/24/23 15:38	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620825/25-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 15:31	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620825/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 16:14	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236042-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-620825/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621246	04/18/23 15:37	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621798/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 14:51	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622045/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622045	04/24/23 14:53	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-620825/26-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621130	04/17/23 15:52	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621798/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 15:12	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236042-1	TB-ROX-041223-8260	Total/NA	Water	8260B	
400-236042-3	MW14-ROX-041223	Total/NA	Water	8260B	
400-236042-4	P54-ROX-041223	Total/NA	Water	8260B	
400-236042-5	P54-ROX-041223-DUP	Total/NA	Water	8260B	
MB 400-622045/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622045/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 620825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236042-3	MW14-ROX-041223	Total/NA	Water	3520C	
400-236042-4	P54-ROX-041223	Total/NA	Water	3520C	
400-236042-5	P54-ROX-041223-DUP	Total/NA	Water	3520C	
MB 400-620825/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-620825/25-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-620825/26-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 621130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236042-3	MW14-ROX-041223	Total/NA	Water	8270D	620825
400-236042-4	P54-ROX-041223	Total/NA	Water	8270D	620825
400-236042-5	P54-ROX-041223-DUP	Total/NA	Water	8270D	620825
MB 400-620825/1-A	Method Blank	Total/NA	Water	8270D	620825
LCS 400-620825/25-A	Lab Control Sample	Total/NA	Water	8270D	620825
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	8270D	620825
LCSD 400-620825/26-A	Lab Control Sample Dup	Total/NA	Water	8270D	620825

Analysis Batch: 621246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236042-3	MW14-ROX-041223	Total/NA	Water	8270D LL	620825
400-236042-4	P54-ROX-041223	Total/NA	Water	8270D LL	620825
400-236042-5	P54-ROX-041223-DUP	Total/NA	Water	8270D LL	620825
MB 400-620825/1-A	Method Blank	Total/NA	Water	8270D LL	620825
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	8270D LL	620825

GC Semi VOA

Prep Batch: 621798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236042-2	TB-ROX-041223-8011	Total/NA	Water	8011	
400-236042-3	MW14-ROX-041223	Total/NA	Water	8011	
400-236042-4	P54-ROX-041223	Total/NA	Water	8011	
400-236042-5	P54-ROX-041223-DUP	Total/NA	Water	8011	
MB 400-621798/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-621798/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-621798/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 621824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236042-2	TB-ROX-041223-8011	Total/NA	Water	8011	621798

GC Semi VOA (Continued)

Analysis Batch: 621824 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236042-3	MW14-ROX-041223	Total/NA	Water	8011	621798
400-236042-4	P54-ROX-041223	Total/NA	Water	8011	621798
400-236042-5	P54-ROX-041223-DUP	Total/NA	Water	8011	621798
MB 400-621798/1-A	Method Blank	Total/NA	Water	8011	621798
LCS 400-621798/2-A	Lab Control Sample	Total/NA	Water	8011	621798
LCSD 400-621798/3-A	Lab Control Sample Dup	Total/NA	Water	8011	621798

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622045/4
Matrix: Water
Analysis Batch: 622045

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/24/23 15:38	1
Acrolein	ND		20	3.3	ug/L			04/24/23 15:38	1
Acrylonitrile	ND		10	2.8	ug/L			04/24/23 15:38	1
Benzene	ND		1.0	0.13	ug/L			04/24/23 15:38	1
Bromobenzene	ND		1.0	0.54	ug/L			04/24/23 15:38	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/24/23 15:38	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/24/23 15:38	1
Bromoform	ND		5.0	0.25	ug/L			04/24/23 15:38	1
Bromomethane	ND		1.0	0.98	ug/L			04/24/23 15:38	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/24/23 15:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/24/23 15:38	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/24/23 15:38	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/24/23 15:38	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/24/23 15:38	1
Chloroethane	ND		1.0	0.76	ug/L			04/24/23 15:38	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/24/23 15:38	1
Chloroform	ND		1.0	1.0	ug/L			04/24/23 15:38	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/24/23 15:38	1
Chloromethane	ND		1.0	0.32	ug/L			04/24/23 15:38	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/24/23 15:38	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/24/23 15:38	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/24/23 15:38	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/24/23 15:38	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/24/23 15:38	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/24/23 15:38	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/24/23 15:38	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/24/23 15:38	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 15:38	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 15:38	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 15:38	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/24/23 15:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/24/23 15:38	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/24/23 15:38	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/24/23 15:38	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/24/23 15:38	1
2-Hexanone	ND		25	1.4	ug/L			04/24/23 15:38	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/24/23 15:38	1
Methylene bromide	ND		5.0	0.22	ug/L			04/24/23 15:38	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/24/23 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/24/23 15:38	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/24/23 15:38	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/24/23 15:38	1
Naphthalene	ND		5.0	3.0	ug/L			04/24/23 15:38	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/24/23 15:38	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/24/23 15:38	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/24/23 15:38	1
o-Xylene	ND		5.0	0.60	ug/L			04/24/23 15:38	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/24/23 15:38	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622045/4
Matrix: Water
Analysis Batch: 622045

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/24/23 15:38	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/24/23 15:38	1
Styrene	ND		1.0	1.0	ug/L			04/24/23 15:38	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/24/23 15:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/24/23 15:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/24/23 15:38	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/24/23 15:38	1
Toluene	ND		1.0	0.41	ug/L			04/24/23 15:38	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/24/23 15:38	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/24/23 15:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/24/23 15:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/24/23 15:38	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/24/23 15:38	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/24/23 15:38	1
Trichloroethene	ND		1.0	0.15	ug/L			04/24/23 15:38	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/24/23 15:38	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/24/23 15:38	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/24/23 15:38	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/24/23 15:38	1
Vinyl acetate	ND		25	0.93	ug/L			04/24/23 15:38	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/24/23 15:38	1
Xylenes, Total	ND		10	1.6	ug/L			04/24/23 15:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*04/24/23 15:38*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/24/23 15:38*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/24/23 15:38*	*1*

Lab Sample ID: LCS 400-622045/1002
Matrix: Water
Analysis Batch: 622045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	213		ug/L		107	43 - 160
Acrolein	250	299		ug/L		120	38 - 160
Acrylonitrile	500	504		ug/L		101	64 - 142
Benzene	50.0	50.4		ug/L		101	70 - 130
Bromobenzene	50.0	48.7		ug/L		97	70 - 132
Bromochloromethane	50.0	50.0		ug/L		100	70 - 130
Bromodichloromethane	50.0	54.8		ug/L		110	67 - 133
Bromoform	50.0	56.7		ug/L		113	57 - 140
Bromomethane	25.0	24.8		ug/L		99	10 - 160
2-Butanone (MEK)	200	207		ug/L		103	61 - 145
Carbon disulfide	50.0	46.5		ug/L		93	61 - 137
Carbon tetrachloride	50.0	52.3		ug/L		105	61 - 137
Chlorobenzene	50.0	46.2		ug/L		92	70 - 130
Dibromochloromethane	50.0	51.0		ug/L		102	67 - 135
Chloroethane	25.0	21.1		ug/L		84	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622045/1002
Matrix: Water
Analysis Batch: 622045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	25.0	36.8		ug/L		147	10 - 160
Chloroform	50.0	50.4		ug/L		101	69 - 130
1-Chlorohexane	50.0	45.7		ug/L		91	69 - 130
Chloromethane	25.0	25.3		ug/L		101	58 - 137
cis-1,2-Dichloroethene	50.0	52.8		ug/L		106	68 - 130
cis-1,3-Dichloropropene	50.0	60.1		ug/L		120	69 - 132
1,2-Dichlorobenzene	50.0	47.1		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	46.8		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	46.9		ug/L		94	70 - 130
Dichlorodifluoromethane	25.0	19.6		ug/L		79	41 - 146
1,1-Dichloroethane	50.0	50.8		ug/L		102	70 - 130
1,2-Dichloroethane	50.0	55.1		ug/L		110	69 - 130
1,1-Dichloroethene	50.0	46.4		ug/L		93	63 - 134
1,2-Dichloropropane	50.0	54.2		ug/L		108	70 - 130
1,3-Dichloropropane	50.0	52.6		ug/L		105	70 - 130
2,2-Dichloropropane	50.0	63.5		ug/L		127	52 - 135
1,1-Dichloropropene	50.0	48.6		ug/L		97	70 - 130
Ethylbenzene	50.0	45.9		ug/L		92	70 - 130
Ethyl methacrylate	50.0	58.3		ug/L		117	68 - 130
Hexachlorobutadiene	50.0	44.6		ug/L		89	53 - 140
2-Hexanone	200	199		ug/L		100	65 - 137
Isopropy benzene	50.0	44.2		ug/L		88	70 - 130
Methylene bromide	50.0	53.9		ug/L		108	70 - 130
Methylene Chloride	50.0	52.7		ug/L		105	66 - 135
4-Methyl-2-pentanone (MIBK)	200	227		ug/L		114	69 - 138
Methyl tert-butyl ether	50.0	60.8		ug/L		122	66 - 130
m-Xylene & p-Xylene	50.0	45.1		ug/L		90	70 - 130
Naphthalene	50.0	52.7		ug/L		105	47 - 149
n-Butylbenzene	50.0	44.1		ug/L		88	67 - 130
N-Propylbenzene	50.0	47.9		ug/L		96	70 - 130
o-Chlorotoluene	50.0	44.7		ug/L		89	70 - 130
o-Xylene	50.0	45.9		ug/L		92	70 - 130
p-Chlorotoluene	50.0	49.1		ug/L		98	70 - 130
p-Isopropyltoluene	50.0	47.3		ug/L		95	65 - 130
sec-Butylbenzene	50.0	46.2		ug/L		92	66 - 130
Styrene	50.0	47.5		ug/L		95	70 - 130
tert-Butylbenzene	50.0	47.8		ug/L		96	64 - 139
1,1,1,2-Tetrachloroethane	50.0	53.7		ug/L		107	67 - 131
1,1,2,2-Tetrachloroethane	50.0	56.3		ug/L		113	70 - 131
Tetrachloroethene	50.0	43.0		ug/L		86	65 - 130
Toluene	50.0	44.3		ug/L		89	70 - 130
trans-1,2-Dichloroethene	50.0	46.3		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	58.9		ug/L		118	63 - 130
1,2,3-Trichlorobenzene	50.0	51.6		ug/L		103	60 - 138
1,2,4-Trichlorobenzene	50.0	50.3		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	49.7		ug/L		99	68 - 130
1,1,2-Trichloroethane	50.0	51.5		ug/L		103	70 - 130
Trichloroethene	50.0	46.0		ug/L		92	70 - 130
Trichlorofluoromethane	25.0	25.5		ug/L		102	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622045/1002
Matrix: Water
Analysis Batch: 622045

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	54.5		ug/L		109	70 - 130
1,2,4-Trimethy benzene	50.0	49.5		ug/L		99	70 - 130
1,3,5-Trimethy benzene	50.0	47.9		ug/L		96	69 - 130
Vinyl acetate	50.0	84.8	*+	ug/L		170	26 - 160
Vinyl chloride	25.0	23.5		ug/L		94	59 - 136
Xylenes, Total	100	91.0		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*95*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
Benzenethiol	ND		10	1.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
Benzoic acid	ND		30	7.3	ug/L		04/14/23 08:21	04/17/23 15:09	1
Benzyl alcohol	ND		10	2.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/14/23 08:21	04/17/23 15:09	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/14/23 08:21	04/17/23 15:09	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/14/23 08:21	04/17/23 15:09	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Chloroaniline	ND		10	3.4	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Chlorophenol	ND		10	2.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Dibenzofuran	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Diethyl phthalate	0.431	J	10	0.24	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/14/23 08:21	04/17/23 15:09	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
1,4-Dioxane	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/14/23 08:21	04/17/23 15:09	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/14/23 08:21	04/17/23 15:09	1
Hexachloroethane	ND		10	4.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
Indene	ND		10	1.0	ug/L		04/14/23 08:21	04/17/23 15:09	1
Isophorone	ND		10	0.14	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Methylphenol	ND		10	1.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Nitroaniline	ND		10	2.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
3-Nitroaniline	ND		10	1.8	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Nitroaniline	ND		10	1.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
Nitrobenzene	ND		10	0.13	ug/L		04/14/23 08:21	04/17/23 15:09	1
2-Nitrophenol	ND		10	5.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
4-Nitrophenol	ND		10	2.1	ug/L		04/14/23 08:21	04/17/23 15:09	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/14/23 08:21	04/17/23 15:09	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/14/23 08:21	04/17/23 15:09	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/23 08:21	04/17/23 15:09	1
Phenol	ND		10	2.6	ug/L		04/14/23 08:21	04/17/23 15:09	1
Pyridine	ND		10	3.2	ug/L		04/14/23 08:21	04/17/23 15:09	1
Quinoline	ND		10	4.5	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/14/23 08:21	04/17/23 15:09	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/14/23 08:21	04/17/23 15:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
2-Fluorophenol	*13*		*13 - 113*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
Nitrobenzene-d5	*88*		*36 - 126*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
Phenol-d5	*58*		*17 - 127*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/14/23 08:21*	*04/17/23 15:09*	*1*
2,4,6-Tribromophenol	*43*		*26 - 150*	*04/14/23 08:21*	*04/17/23 15:09*	*1*

Lab Sample ID: LCS 400-620825/25-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	6.53	J *-	ug/L		5	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*97*		*44 - 149*
2,4,6-Tribromophenol	*61*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	109		ug/L		90	21 - 120
Benzoic acid	554	286		ug/L		52	10 - 144
Benzyl alcohol	120	87.7		ug/L		73	28 - 120
Bis(2-chloroethoxy)methane	120	91.5		ug/L		76	47 - 120
Bis(2-chloroethyl)ether	120	91.2		ug/L		76	44 - 120
bis (2-chloroisopropyl) ether	120	95.3		ug/L		79	33 - 121
Bis(2-ethylhexyl) phthalate	120	115		ug/L		96	52 - 147
4-Bromophenyl phenyl ether	120	103		ug/L		86	54 - 122
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133
4-Chloroaniline	120	95.5		ug/L		80	26 - 120
4-Chloro-3-methylphenol	120	98.4		ug/L		82	48 - 131
2-Chloronaphthalene	120	105		ug/L		88	52 - 121
2-Chlorophenol	120	66.1		ug/L		55	40 - 120
4-Chlorophenyl phenyl ether	120	107		ug/L		89	56 - 125
Dibenz[a,h]acridine	120	97.2		ug/L		81	31 - 150
Dibenzofuran	120	109		ug/L		91	56 - 122
3,3'-Dichlorobenzidine	160	188		ug/L		118	36 - 132
2,4-Dichlorophenol	120	85.7		ug/L		71	49 - 120
Diethyl phthalate	120	113		ug/L		94	50 - 137
2,4-Dimethylphenol	120	80.2		ug/L		67	48 - 120
Dimethyl phthalate	120	105		ug/L		87	57 - 124
Di-n-butyl phthalate	120	118		ug/L		98	58 - 126
4,6-Dinitro-ortho-cresol	240	170		ug/L		71	23 - 148
2,4-Dinitrophenol	240	189		ug/L		79	10 - 150
2,4-Dinitrotoluene	120	109		ug/L		91	54 - 142
2,6-Dinitrotoluene	120	104		ug/L		87	55 - 130
Di-n-octyl phthalate	120	114		ug/L		95	57 - 138
1,4-Dioxane	120	66.8		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	104		ug/L		87	45 - 124
Hexachlorobenzene	120	110		ug/L		91	52 - 129
Hexachlorocyclopentadiene	120	66.9		ug/L		56	10 - 134
Hexachloroethane	120	100		ug/L		83	20 - 120
Indene	120	97.9		ug/L		82	49 - 120
Isophorone	120	93.6		ug/L		78	48 - 120
2-Methylphenol	120	106		ug/L		88	46 - 124
3 & 4 Methylphenol	120	98.8		ug/L		82	45 - 120
2-Nitroaniline	120	106		ug/L		89	51 - 145
3-Nitroaniline	120	90.6		ug/L		76	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	93.2		ug/L		78	45 - 120
2-Nitrophenol	120	85.7		ug/L		71	40 - 124
4-Nitrophenol	240	240		ug/L		100	23 - 146
N-Nitrosodimethylamine	120	97.5		ug/L		81	29 - 137
N-Nitrosodi-n-propylamine	120	111		ug/L		92	45 - 120
N-Nitrosodiphenylamine	119	103		ug/L		87	54 - 120
Pentachlorophenol	240	166		ug/L		69	31 - 130
Phenol	120	74.4		ug/L		62	11 - 120
Pyridine	240	156		ug/L		65	16 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	112		ug/L		94	49 - 130		
2,4,5-Trichlorophenol			120	93.2		ug/L		78	51 - 136		
2,4,6-Trichlorophenol			120	84.6		ug/L		70	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*67*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*86*		*26 - 150*

Lab Sample ID: LCSD 400-620825/26-A
Matrix: Water
Analysis Batch: 621130

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 620825

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	5.64	J *-	ug/L		5	10 - 120	15	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*71*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*38*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 15:20	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 15:20	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/14/23 08:21	04/18/23 15:20	1
Chrysene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 15:20	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/14/23 08:21	04/18/23 15:20	1
Fluoranthene	ND		0.20	0.068	ug/L		04/14/23 08:21	04/18/23 15:20	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 15:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/14/23 08:21	04/18/23 15:20	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 15:20	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/14/23 08:21	04/18/23 15:20	1
Phenanthrene	ND		0.20	0.036	ug/L		04/14/23 08:21	04/18/23 15:20	1
Pyrene	ND		0.20	0.040	ug/L		04/14/23 08:21	04/18/23 15:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/14/23 08:21*	*04/18/23 15:20*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/14/23 08:21*	*04/18/23 15:20*	*1*
Terphenyl-d14	*134*		*33 - 138*	*04/14/23 08:21*	*04/18/23 15:20*	*1*

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	103		ug/L		86	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	122		ug/L		102	49 - 120
Benzo[a]anthracene	120	122		ug/L		102	61 - 135
Benzo[a]pyrene	120	121		ug/L		101	52 - 120
Benzo[b]fluoranthene	120	118		ug/L		99	53 - 134
Benzo[g,h,i]perylene	120	123		ug/L		102	47 - 133
Benzo[k]fluoranthene	120	99.5		ug/L		83	57 - 134
Chrysene	120	112		ug/L		94	55 - 122
Dibenz(a,h)anthracene	120	130		ug/L		109	48 - 146
Fluoranthene	120	119		ug/L		99	54 - 128
Fluorene	120	123		ug/L		102	45 - 125
Indeno[1,2,3-cd]pyrene	120	116		ug/L		97	43 - 142
1-Methylnaphthalene	120	105		ug/L		88	41 - 120
2-Methylnaphthalene	120	108		ug/L		90	32 - 124
Phenanthrene	120	110		ug/L		92	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*15 - 122*
Nitrobenzene-d5	*78*		*19 - 130*
Terphenyl-d14	*94*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-621798/1-A
Matrix: Water
Analysis Batch: 621824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621798

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/21/23 11:59	04/21/23 14:31	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/21/23 11:59	04/21/23 14:31	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-621798/1-A
Matrix: Water
Analysis Batch: 621824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621798

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		51 - 149	04/21/23 11:59	04/21/23 14:31	1

Lab Sample ID: LCS 400-621798/2-A
Matrix: Water
Analysis Batch: 621824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621798

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.0941		ug/L		94	60 - 140		
1,2-D bromoethane			0.101	0.103		ug/L		103	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	96		51 - 149

Lab Sample ID: LCSD 400-621798/3-A
Matrix: Water
Analysis Batch: 621824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.0974		ug/L		97	60 - 140	3	30
1,2-D bromoethane			0.101	0.105		ug/L		104	60 - 140	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	98		51 - 149

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☒ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:		
☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/12/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@secomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 1.3°C IR11

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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041223-8260	4/12/2023	0000	Water	2					2	X			
	TB-ROX-041223-8011	4/12/2023	0000	Water	2					2		X		
	MW14-ROX-041223	4/12/2023	0930	Water	6			2		8	X	X	X	X
	P54-ROX-041223	4/12/2023	1140	Water	6			2		8	X	X	X	X
	P54-ROX-041223-DUP	4/12/2023	1140	Water	6			2		8	X	X	X	X

400-236042 COC

MM 4/12/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 9818, 5564 3932 9807, 5564 3932 9792	4/12/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/13/23	Time: 9:18
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1599702, 1599703, 1599704, 1599705, 1599706, 1599707

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-236042-1

Login Number: 236042
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236042-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236045-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/30/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041223-8260-BP	TB-ROX-041223-8011-BP
MW23-ROX-041223	--

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 benzenethiol LCS/LCSD recoveries and LCS/LCSD RPDs were outside evaluation criteria. The continuing calibration verification (CCV) for 1,4-dioxane was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. Several PAHs in sample MW23-ROX-041223 were re-extracted and re-analyzed within holding time to confirm PAH detections in the original extract; both original and reanalysis results are reported. With regard to initial PAH data, the laboratory issued a Corrective Action Report (CAR) stating that through confirmation analyses, many previous detections were not confirmed and were therefore deemed laboratory contamination. Based on professional judgement, the results from the re-analysis were used for the purposes of this report.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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
LCS/LCSD 400-621528/5-A/6-A	SVOCs	Benzenethiol	**4/3**	**37**	10-120/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-041223	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for 1,4-dioxane was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-041223	SVOCs	1,4-Dioxane	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 5/16/2023 3:34:14 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236045-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 15
Surrogate Summary 16
Method Summary 18
Chronicle 19
QC Association 22
QC Sample Results 24
Chain of Custody 34
Receipt Checklists 35
Certification Summary 36

Job ID: 400-236045-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236045-1

Receipt
The samples were received on 4/13/2023 9:18 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.3°C

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041223-8260-BP (400-236045-1) and MW23-ROX-041223 (400-236045-3). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621820 recovered above the upper control limit for Benzenethiol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 400-621820/6).

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621528 and analytical batch 400-621820 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-621528 and analytical batch 400-621820 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621820 recovered outside acceptance criteria, low biased, for 1,4-Dioxane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-621528 and 400-621528 and analytical batch 400-621820 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8270D_LL: The continuing calibration verification (CCV) associated with batch 400-621246 recovered above the upper control limit for Dibenz(a,h)anthracene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-620825 and analytical batch 400-621130 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results hav been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621130 recovered above the upper cont limit for Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have bee reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621130 recovered outside acceptance criteria, low biased, for Dibenz[a,h]acridine and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and t

Job ID: 400-236045-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The matrix spike duplicate (MSD) recoveries for preparation batch 400-620825 and analytical batch 400-621130 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8270D: The method blank for preparation batch 400-620825 and analytical batch 400-621130 contained Diethyl phthala above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extractio and/or re-analysis of samples was not performed.

Method 8270D LL: The following sample was re-prepared to confirm original results: MW23-ROX-041223 (400-236045-3). Botl sets of data are reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-621824 recovered above the upper contrc limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236045-1	TB-ROX-041223-8260-BP	Water	04/12/23 12:00	04/13/23 09:18
400-236045-2	TB-ROX-041223-8011-BP	Water	04/12/23 12:00	04/13/23 09:18
400-236045-3	MW23-ROX-041223	Water	04/12/23 13:05	04/13/23 09:18

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: TB-ROX-041223-8260-BP — Lab Sample ID: 400-236045-1

No Detections.

Client Sample ID: TB-ROX-041223-8011-BP — Lab Sample ID: 400-236045-2

No Detections.

Client Sample ID: MW23-ROX-041223 — Lab Sample ID: 400-236045-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.32	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.66	J	1.0	0.22	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	0.090	J	0.20	0.074	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.077	J	0.20	0.060	ug/L	1		8270D LL	Total/NA
Benzoic acid	19	J	30	7.3	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: TB-ROX-041223-8260-BP
Date Collected: 04/12/23 12:00
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236045-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 14:18	1
Acrolein	ND		20	3.3	ug/L			04/25/23 14:18	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 14:18	1
Benzene	ND		1.0	0.13	ug/L			04/25/23 14:18	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 14:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 14:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 14:18	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 14:18	1
Bromomethane	ND		1.0	0.98	ug/L			04/25/23 14:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 14:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 14:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 14:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 14:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 14:18	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 14:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 14:18	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 14:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 14:18	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 14:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 14:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 14:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 14:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 14:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 14:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 14:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 14:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 14:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 14:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 14:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 14:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 14:18	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 14:18	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 14:18	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 14:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 14:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/25/23 14:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 14:18	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 14:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 14:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 14:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 14:18	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 14:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 14:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 14:18	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: TB-ROX-041223-8260-BP
Date Collected: 04/12/23 12:00
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236045-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 14:18	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 14:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 14:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 14:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 14:18	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 14:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 14:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 14:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 14:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 14:18	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 14:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 14:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 14:18	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 14:18	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 14:18	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 14:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 14:18	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/25/23 14:18*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/25/23 14:18*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/25/23 14:18*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: TB-ROX-041223-8011-BP
Date Collected: 04/12/23 12:00
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236045-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/21/23 11:59	04/21/23 18:58	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/21/23 11:59	04/21/23 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*51 - 149*	*04/21/23 11:59*	*04/21/23 18:58*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: MW23-ROX-041223
Date Collected: 04/12/23 13:05
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236045-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 16:05	1
Acrolein	ND		20	3.3	ug/L			04/25/23 16:05	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 16:05	1
Benzene	**0.32**	**J**	1.0	0.13	ug/L			04/25/23 16:05	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 16:05	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 16:05	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 16:05	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 16:05	1
Bromomethane	ND		1.0	0.98	ug/L			04/25/23 16:05	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 16:05	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 16:05	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 16:05	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 16:05	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 16:05	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 16:05	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 16:05	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 16:05	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 16:05	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 16:05	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 16:05	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 16:05	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 16:05	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 16:05	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 16:05	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 16:05	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 16:05	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 16:05	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 16:05	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 16:05	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 16:05	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 16:05	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 16:05	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 16:05	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 16:05	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 16:05	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 16:05	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 16:05	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 16:05	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 16:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 16:05	1
Methyl tert-butyl ether	**0.66**	**J**	1.0	0.22	ug/L			04/25/23 16:05	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 16:05	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 16:05	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 16:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 16:05	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 16:05	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 16:05	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 16:05	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 16:05	1

Client Sample ID: MW23-ROX-041223
Date Collected: 04/12/23 13:05
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236045-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 16:05	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 16:05	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 16:05	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 16:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 16:05	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 16:05	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 16:05	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 16:05	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 16:05	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 16:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 16:05	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 16:05	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 16:05	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 16:05	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 16:05	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 16:05	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 16:05	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 16:05	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 16:05	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 16:05	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 119*		*04/25/23 16:05*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*04/25/23 16:05*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/25/23 16:05*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 19:05	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 19:05	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 19:05	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/14/23 08:21	04/18/23 19:05	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 19:05	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 19:05	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 19:05	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/14/23 08:21	04/18/23 19:05	1
Chrysene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 19:05	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/14/23 08:21	04/18/23 19:05	1
Fluoranthene	ND		0.20	0.068	ug/L		04/14/23 08:21	04/18/23 19:05	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 19:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/14/23 08:21	04/18/23 19:05	1
1-Methylnaphthalene	**0.090**	**J**	0.20	0.074	ug/L		04/14/23 08:21	04/18/23 19:05	1
2-Methylnaphthalene	**0.077**	**J**	0.20	0.060	ug/L		04/14/23 08:21	04/18/23 19:05	1
Phenanthrene	ND		0.20	0.036	ug/L		04/14/23 08:21	04/18/23 19:05	1
Pyrene	ND		0.20	0.040	ug/L		04/14/23 08:21	04/18/23 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*37*		*15 - 122*	*04/14/23 08:21*	*04/18/23 19:05*	*1*
Nitrobenzene-d5	*20*		*19 - 130*	*04/14/23 08:21*	*04/18/23 19:05*	*1*

Client Sample ID: MW23-ROX-041223

Date Collected: 04/12/23 13:05
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236045-3

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*102*		*33 - 138*	*04/14/23 08:21*	*04/18/23 19:05*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/19/23 14:40	05/15/23 14:20	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/19/23 14:40	05/15/23 14:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*15 - 122*	*04/19/23 14:40*	*05/15/23 14:20*	*1*
Nitrobenzene-d5	*80*		*19 - 130*	*04/19/23 14:40*	*05/15/23 14:20*	*1*
Terphenyl-d14	*111*		*33 - 138*	*04/19/23 14:40*	*05/15/23 14:20*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/19/23 14:40	04/22/23 03:01	1
Benzenethiol	ND	*- *1 UJ	10	1.7	ug/L		04/19/23 14:40	04/22/23 03:01	1
Benzoic acid	**19**	**J**	30	7.3	ug/L		04/19/23 14:40	04/22/23 03:01	1
Benzyl alcohol	ND		10	2.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/19/23 14:40	04/22/23 03:01	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/19/23 14:40	04/22/23 03:01	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/19/23 14:40	04/22/23 03:01	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/19/23 14:40	04/22/23 03:01	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/19/23 14:40	04/22/23 03:01	1
4-Chloroaniline	ND		10	3.4	ug/L		04/19/23 14:40	04/22/23 03:01	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/19/23 14:40	04/22/23 03:01	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/19/23 14:40	04/22/23 03:01	1
2-Chlorophenol	ND		10	2.2	ug/L		04/19/23 14:40	04/22/23 03:01	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
Dibenzofuran	ND		10	0.17	ug/L		04/19/23 14:40	04/22/23 03:01	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/19/23 14:40	04/22/23 03:01	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
Diethyl phthalate	ND		10	0.24	ug/L		04/19/23 14:40	04/22/23 03:01	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/19/23 14:40	04/22/23 03:01	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/22/23 03:01	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/19/23 14:40	04/22/23 03:01	1
4,6-Dinitro-ortho-cresol	ND	*-	10	1.6	ug/L		04/19/23 14:40	04/22/23 03:01	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/19/23 14:40	04/22/23 03:01	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/22/23 03:01	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/22/23 03:01	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/22/23 03:01	1
1,4-Dioxane	ND	UJ	10	1.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/19/23 14:40	04/22/23 03:01	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/19/23 14:40	04/22/23 03:01	1
Hexachloroethane	ND		10	4.2	ug/L		04/19/23 14:40	04/22/23 03:01	1
Indene	ND		10	1.0	ug/L		04/19/23 14:40	04/22/23 03:01	1
Isophorone	ND		10	0.14	ug/L		04/19/23 14:40	04/22/23 03:01	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: MW23-ROX-041223
Date Collected: 04/12/23 13:05
Date Received: 04/13/23 09:18

Lab Sample ID: 400-236045-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		10	1.8	ug/L		04/19/23 14:40	04/22/23 03:01	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/19/23 14:40	04/22/23 03:01	1
2-Nitroaniline	ND		10	2.2	ug/L		04/19/23 14:40	04/22/23 03:01	1
3-Nitroaniline	ND		10	1.8	ug/L		04/19/23 14:40	04/22/23 03:01	1
4-Nitroaniline	ND		10	1.5	ug/L		04/19/23 14:40	04/22/23 03:01	1
Nitrobenzene	ND		10	0.13	ug/L		04/19/23 14:40	04/22/23 03:01	1
2-Nitrophenol	ND		10	5.2	ug/L		04/19/23 14:40	04/22/23 03:01	1
4-Nitrophenol	ND		10	2.1	ug/L		04/19/23 14:40	04/22/23 03:01	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/19/23 14:40	04/22/23 03:01	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/19/23 14:40	04/22/23 03:01	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/19/23 14:40	04/22/23 03:01	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/22/23 03:01	1
Phenol	ND		10	2.6	ug/L		04/19/23 14:40	04/22/23 03:01	1
Pyridine	ND		10	3.2	ug/L		04/19/23 14:40	04/22/23 03:01	1
Quinoline	ND		10	4.5	ug/L		04/19/23 14:40	04/22/23 03:01	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/19/23 14:40	04/22/23 03:01	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/19/23 14:40	04/22/23 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/19/23 14:40*	*04/22/23 03:01*	*1*
2-Fluorophenol	*73*		*13 - 113*	*04/19/23 14:40*	*04/22/23 03:01*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*04/19/23 14:40*	*04/22/23 03:01*	*1*
Phenol-d5	*84*		*17 - 127*	*04/19/23 14:40*	*04/22/23 03:01*	*1*
Terphenyl-d14	*81*		*44 - 149*	*04/19/23 14:40*	*04/22/23 03:01*	*1*
2,4,6-Tribromophenol	*98*		*26 - 150*	*04/19/23 14:40*	*04/22/23 03:01*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.017	ug/L		04/21/23 11:59	04/21/23 19:19	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/21/23 11:59	04/21/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*51 - 149*	*04/21/23 11:59*	*04/21/23 19:19*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-236045-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236045-1	TB-ROX-041223-8260-BP	92	104	97
400-236045-3	MW23-ROX-041223	90	106	96
LCS 400-622122/1002	Lab Control Sample	88	96	99
MB 400-622122/4	Method Blank	93	107	96

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236045-3	MW23-ROX-041223	87	73	81	84	81	98
LCS 400-621528/2-A	Lab Control Sample	81	72	83	84	82	99
LCS 400-621528/5-A	Lab Control Sample	83	71	78	84	81	74
LCSD 400-621528/6-A	Lab Control Sample Dup	86	70	82	84	84	74
MB 400-621528/1-A	Method Blank	82	49	75	71	78	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236045-3	MW23-ROX-041223	37	20	102
400-236045-3 - RERA	MW23-ROX-041223	83	80	111
LCS 400-620825/2-A	Lab Control Sample	87	78	94
LCS 400-621528/2-A	Lab Control Sample	88	85	101
MB 400-620825/1-A	Method Blank	110	108	134
MB 400-621528/1-A	Method Blank	109	99	135

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Job ID: 400-236045-1
Project/Site: ROXANA QUARTERLY GW

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB2								
Lab Sample ID	Client Sample ID	(51-149)								
400-236045-2	TB-ROX-041223-8011-BP	82								
400-236045-3	MW23-ROX-041223	103								
LCS 400-621798/2-A	Lab Control Sample	96								
LCSD 400-621798/3-A	Lab Control Sample Dup	98								
MB 400-621798/1-A	Method Blank	86								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: TB-ROX-041223-8260-BP
Lab Sample ID: 400-236045-1
Date Collected: 04/12/23 12:00
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622122	04/25/23 14:18	AGW	EET PEN

Client Sample ID: TB-ROX-041223-8011-BP
Lab Sample ID: 400-236045-2
Date Collected: 04/12/23 12:00
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 18:58	PG	EET PEN

Client Sample ID: MW23-ROX-041223
Lab Sample ID: 400-236045-3
Date Collected: 04/12/23 13:05
Matrix: Water
Date Received: 04/13/23 09:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622122	04/25/23 16:05	AGW	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 03:01	PP1	EET PEN
Total/NA	Prep	3520C			250.4 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 19:05	PP1	EET PEN
Total/NA	Prep	3520C	RERA		250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL	RERA	1	0.4 mL	0.4 mL	624927	05/15/23 14:20	PP1	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 19:19	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-620825/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621246	04/18/23 15:20	PP1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621528/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 19:48	PP1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 16:59	PP1	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: Method Blank — Lab Sample ID: MB 400-621798/1-A

Date Collected: N/A
Date Received: N/A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 14:31	PG	EET PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-622122/4

Date Collected: N/A
Date Received: N/A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622122	04/25/23 09:27	AGW	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-620825/2-A

Date Collected: N/A
Date Received: N/A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	620825	04/14/23 08:21	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621246	04/18/23 15:37	PP1	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-621528/2-A

Date Collected: N/A
Date Received: N/A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:50	PP1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622050	04/24/23 17:17	PP1	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-621528/5-A

Date Collected: N/A
Date Received: N/A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:09	PP1	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-621798/2-A

Date Collected: N/A
Date Received: N/A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 14:51	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236045-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622122/1002

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622122	04/25/23 08:29	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621528/6-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:30	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621798/3-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	621798	04/21/23 11:59	PG	EET PEN
Total/NA	Analysis	8011		1			621824	04/21/23 15:12	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-1	TB-ROX-041223-8260-BP	Total/NA	Water	8260B	
400-236045-3	MW23-ROX-041223	Total/NA	Water	8260B	
MB 400-622122/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622122/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 620825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-3	MW23-ROX-041223	Total/NA	Water	3520C	
MB 400-620825/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	3520C	

Analysis Batch: 621246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-3	MW23-ROX-041223	Total/NA	Water	8270D LL	620825
MB 400-620825/1-A	Method Blank	Total/NA	Water	8270D LL	620825
LCS 400-620825/2-A	Lab Control Sample	Total/NA	Water	8270D LL	620825

Prep Batch: 621528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-3 - RERA	MW23-ROX-041223	Total/NA	Water	3520C	
400-236045-3	MW23-ROX-041223	Total/NA	Water	3520C	
MB 400-621528/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621528/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621528/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 621820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-3	MW23-ROX-041223	Total/NA	Water	8270D	621528
MB 400-621528/1-A	Method Blank	Total/NA	Water	8270D	621528
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	8270D	621528
LCS 400-621528/5-A	Lab Control Sample	Total/NA	Water	8270D	621528
LCSD 400-621528/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	621528

Analysis Batch: 622050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-621528/1-A	Method Blank	Total/NA	Water	8270D LL	621528
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621528

Analysis Batch: 624927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-3 - RERA	MW23-ROX-041223	Total/NA	Water	8270D LL	621528

GC Semi VOA

Prep Batch: 621798

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-2	TB-ROX-041223-8011-BP	Total/NA	Water	8011	
400-236045-3	MW23-ROX-041223	Total/NA	Water	8011	
MB 400-621798/1-A	Method Blank	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 621798 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-621798/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-621798/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 621824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236045-2	TB-ROX-041223-8011-BP	Total/NA	Water	8011	621798
400-236045-3	MW23-ROX-041223	Total/NA	Water	8011	621798
MB 400-621798/1-A	Method Blank	Total/NA	Water	8011	621798
LCS 400-621798/2-A	Lab Control Sample	Total/NA	Water	8011	621798
LCSD 400-621798/3-A	Lab Control Sample Dup	Total/NA	Water	8011	621798

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622122/4
Matrix: Water
Analysis Batch: 622122

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 09:27	1
Acrolein	ND		20	3.3	ug/L			04/25/23 09:27	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 09:27	1
Benzene	ND		1.0	0.13	ug/L			04/25/23 09:27	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 09:27	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 09:27	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 09:27	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 09:27	1
Bromomethane	ND		1.0	0.98	ug/L			04/25/23 09:27	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 09:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 09:27	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 09:27	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 09:27	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 09:27	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 09:27	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 09:27	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 09:27	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 09:27	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 09:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 09:27	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 09:27	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 09:27	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 09:27	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 09:27	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 09:27	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 09:27	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 09:27	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 09:27	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 09:27	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 09:27	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 09:27	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 09:27	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 09:27	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 09:27	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 09:27	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 09:27	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 09:27	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 09:27	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 09:27	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 09:27	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/25/23 09:27	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 09:27	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 09:27	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 09:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 09:27	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 09:27	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 09:27	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 09:27	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622122/4
Matrix: Water
Analysis Batch: 622122

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 09:27	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 09:27	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 09:27	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 09:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 09:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 09:27	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 09:27	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 09:27	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 09:27	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 09:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 09:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 09:27	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 09:27	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 09:27	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 09:27	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 09:27	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 09:27	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 09:27	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 09:27	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 09:27	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 09:27	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 09:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*04/25/23 09:27*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*04/25/23 09:27*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/25/23 09:27*	*1*

Lab Sample ID: LCS 400-622122/1002
Matrix: Water
Analysis Batch: 622122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	184		ug/L		92	43 - 160
Acrolein	500	416		ug/L		83	38 - 160
Acrylonitrile	500	483		ug/L		97	64 - 142
Benzene	50.0	47.6		ug/L		95	70 - 130
Bromobenzene	50.0	47.5		ug/L		95	70 - 132
Bromochloromethane	50.0	49.4		ug/L		99	70 - 130
Bromodichloromethane	50.0	44.5		ug/L		89	67 - 133
Bromoform	50.0	43.4		ug/L		87	57 - 140
Bromomethane	50.0	41.7		ug/L		83	10 - 160
2-Butanone (MEK)	200	180		ug/L		90	61 - 145
Carbon disulfide	50.0	47.9		ug/L		96	61 - 137
Carbon tetrachloride	50.0	44.9		ug/L		90	61 - 137
Chlorobenzene	50.0	49.5		ug/L		99	70 - 130
Dibromochloromethane	50.0	47.5		ug/L		95	67 - 135
Chloroethane	50.0	51.1		ug/L		102	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622122/1002
Matrix: Water
Analysis Batch: 622122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	30.2		ug/L		60	10 - 160
Chloroform	50.0	44.7		ug/L		89	69 - 130
1-Chlorohexane	50.0	47.8		ug/L		96	69 - 130
Chloromethane	50.0	44.5		ug/L		89	58 - 137
cis-1,2-Dichloroethene	50.0	45.2		ug/L		90	68 - 130
cis-1,3-Dichloropropene	50.0	45.8		ug/L		92	69 - 132
1,2-Dichlorobenzene	50.0	50.4		ug/L		101	67 - 130
1,3-Dichlorobenzene	50.0	50.2		ug/L		100	70 - 130
1,4-Dichlorobenzene	50.0	49.6		ug/L		99	70 - 130
Dichlorodifluoromethane	50.0	40.8		ug/L		82	41 - 146
1,1-Dichloroethane	50.0	45.7		ug/L		91	70 - 130
1,2-Dichloroethane	50.0	42.0		ug/L		84	69 - 130
1,1-Dichloroethene	50.0	46.2		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	48.3		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	47.5		ug/L		95	70 - 130
2,2-Dichloropropane	50.0	41.1		ug/L		82	52 - 135
1,1-Dichloropropene	50.0	45.3		ug/L		91	70 - 130
Ethylbenzene	50.0	48.3		ug/L		97	70 - 130
Ethyl methacrylate	50.0	44.5		ug/L		89	68 - 130
Hexachlorobutadiene	50.0	54.2		ug/L		108	53 - 140
2-Hexanone	200	174		ug/L		87	65 - 137
Isopropy benzene	50.0	49.3		ug/L		99	70 - 130
Methylene bromide	50.0	45.9		ug/L		92	70 - 130
Methylene Chloride	50.0	48.5		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	169		ug/L		84	69 - 138
Methyl tert-butyl ether	50.0	42.1		ug/L		84	66 - 130
m-Xylene & p-Xylene	50.0	47.7		ug/L		95	70 - 130
Naphthalene	50.0	45.9		ug/L		92	47 - 149
n-Butylbenzene	50.0	51.7		ug/L		103	67 - 130
N-Propylbenzene	50.0	49.3		ug/L		99	70 - 130
o-Chlorotoluene	50.0	47.7		ug/L		95	70 - 130
o-Xylene	50.0	47.9		ug/L		96	70 - 130
p-Chlorotoluene	50.0	47.4		ug/L		95	70 - 130
p-Isopropyltoluene	50.0	50.4		ug/L		101	65 - 130
sec-Butylbenzene	50.0	49.5		ug/L		99	66 - 130
Styrene	50.0	50.1		ug/L		100	70 - 130
tert-Butylbenzene	50.0	45.7		ug/L		91	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.3		ug/L		97	67 - 131
1,1,2,2-Tetrachloroethane	50.0	44.8		ug/L		90	70 - 131
Tetrachloroethene	50.0	49.3		ug/L		99	65 - 130
Toluene	50.0	47.0		ug/L		94	70 - 130
trans-1,2-Dichloroethene	50.0	47.4		ug/L		95	70 - 130
trans-1,3-Dichloropropene	50.0	44.9		ug/L		90	63 - 130
1,2,3-Trichlorobenzene	50.0	49.5		ug/L		99	60 - 138
1,2,4-Trichlorobenzene	50.0	50.4		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	43.6		ug/L		87	68 - 130
1,1,2-Trichloroethane	50.0	48.1		ug/L		96	70 - 130
Trichloroethene	50.0	46.9		ug/L		94	70 - 130
Trichlorofluoromethane	50.0	51.3		ug/L		103	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622122/1002
Matrix: Water
Analysis Batch: 622122

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	43.6		ug/L		87	70 - 130
1,2,4-Trimethy benzene	50.0	48.9		ug/L		98	70 - 130
1,3,5-Trimethy benzene	50.0	47.8		ug/L		96	69 - 130
Vinyl acetate	100	95.8		ug/L		96	26 - 160
Vinyl chloride	50.0	52.2		ug/L		104	59 - 136
Xylenes, Total	100	95.6		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzenethiol	ND		10	1.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzoic acid	ND		30	7.3	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzyl alcohol	ND		10	2.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/19/23 14:40	04/21/23 19:48	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chloroaniline	ND		10	3.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Chlorophenol	ND		10	2.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dibenzofuran	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Diethyl phthalate	ND		10	0.24	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/21/23 19:48	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
1,4-Dioxane	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachloroethane	ND		10	4.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
Indene	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Isophorone	ND		10	0.14	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Methylphenol	ND		10	1.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Nitroaniline	ND		10	2.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
3-Nitroaniline	ND		10	1.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Nitroaniline	ND		10	1.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
Nitrobenzene	ND		10	0.13	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Nitrophenol	ND		10	5.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Nitrophenol	ND		10	2.1	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/19/23 14:40	04/21/23 19:48	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
Phenol	ND		10	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
Pyridine	ND		10	3.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
Quinoline	ND		10	4.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
2-Fluorophenol	*49*		*13 - 113*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Phenol-d5	*71*		*17 - 127*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Terphenyl-d14	*78*		*44 - 149*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*04/19/23 14:40*	*04/21/23 19:48*	*1*

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	106		ug/L		88	21 - 120
Benzoic acid	554	441		ug/L		80	10 - 144
Benzyl alcohol	120	103		ug/L		86	28 - 120
Bis(2-chloroethoxy)methane	120	89.4		ug/L		74	47 - 120
Bis(2-chloroethyl)ether	120	94.5		ug/L		79	44 - 120
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121
Bis(2-ethylhexyl) phthalate	120	95.0		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	94.6		ug/L		79	54 - 122
Butyl benzyl phthalate	120	96.4		ug/L		80	54 - 133
4-Chloroaniline	120	86.0		ug/L		72	26 - 120
4-Chloro-3-methylphenol	120	107		ug/L		89	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	99.3		ug/L		83	52 - 121
2-Chlorophenol	120	95.5		ug/L		80	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	123		ug/L		103	31 - 150
Dibenzofuran	120	106		ug/L		88	56 - 122
3,3'-Dichlorobenzidine	160	199		ug/L		124	36 - 132
2,4-Dichlorophenol	120	101		ug/L		84	49 - 120
Diethyl phthalate	120	109		ug/L		91	50 - 137
2,4-Dimethylphenol	120	79.6		ug/L		66	48 - 120
Dimethyl phthalate	120	99.5		ug/L		83	57 - 124
Di-n-butyl phthalate	120	102		ug/L		85	58 - 126
4,6-Dinitro-ortho-cresol	240	215		ug/L		89	23 - 148
2,4-Dinitrophenol	240	246		ug/L		103	10 - 150
2,4-Dinitrotoluene	120	107		ug/L		89	54 - 142
2,6-Dinitrotoluene	120	102		ug/L		85	55 - 130
Di-n-octyl phthalate	120	92.3		ug/L		77	57 - 138
1,4-Dioxane	120	61.6		ug/L		51	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	95.8		ug/L		80	45 - 124
Hexachlorobenzene	120	105		ug/L		88	52 - 129
Hexachlorocyclopentadiene	120	76.0		ug/L		63	10 - 134
Hexachloroethane	120	94.5		ug/L		79	20 - 120
Indene	120	105		ug/L		88	49 - 120
Isophorone	120	91.3		ug/L		76	48 - 120
2-Methylphenol	120	103		ug/L		86	46 - 124
3 & 4 Methylphenol	120	104		ug/L		87	45 - 120
2-Nitroaniline	120	101		ug/L		84	51 - 145
3-Nitroaniline	120	126		ug/L		105	37 - 127
4-Nitroaniline	120	135		ug/L		113	36 - 137
Nitrobenzene	120	89.3		ug/L		74	45 - 120
2-Nitrophenol	120	97.1		ug/L		81	40 - 124
4-Nitrophenol	240	208		ug/L		87	23 - 146
N-Nitrosodimethylamine	120	98.3		ug/L		82	29 - 137
N-Nitrosodi-n-propylamine	120	104		ug/L		87	45 - 120
N-Nitrosodiphenylamine	119	88.3		ug/L		74	54 - 120
Pentachlorophenol	240	205		ug/L		85	31 - 130
Phenol	120	97.8		ug/L		81	11 - 120
Pyridine	240	164		ug/L		68	16 - 120
Quinoline	120	111		ug/L		93	49 - 130
2,4,5-Trichlorophenol	120	96.7		ug/L		81	51 - 136
2,4,6-Trichlorophenol	120	95.6		ug/L		80	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*72*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*84*		*17 - 127*
Terphenyl-d14	*82*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	99		26 - 150

Lab Sample ID: LCS 400-621528/5-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	4.70	J *-	ug/L		4	10 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	83		46 - 124
2-Fluorophenol	71		13 - 113
Nitrobenzene-d5	78		36 - 126
Phenol-d5	84		17 - 127
Terphenyl-d14	81		44 - 149
2,4,6-Tribromophenol	74		26 - 150

Lab Sample ID: LCSD 400-621528/6-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621528

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.22	J *- *1	ug/L		3	10 - 120	37	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	86		46 - 124
2-Fluorophenol	70		13 - 113
Nitrobenzene-d5	82		36 - 126
Phenol-d5	84		17 - 127
Terphenyl-d14	84		44 - 149
2,4,6-Tribromophenol	74		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 15:20	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/14/23 08:21	04/18/23 15:20	1
Anthracene	ND		0.20	0.032	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/23 08:21	04/18/23 15:20	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/14/23 08:21	04/18/23 15:20	1
Chrysene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 15:20	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-620825/1-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 620825

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/14/23 08:21	04/18/23 15:20	1
Fluoranthene	ND		0.20	0.068	ug/L		04/14/23 08:21	04/18/23 15:20	1
Fluorene	ND		0.20	0.11	ug/L		04/14/23 08:21	04/18/23 15:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/14/23 08:21	04/18/23 15:20	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/14/23 08:21	04/18/23 15:20	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/14/23 08:21	04/18/23 15:20	1
Phenanthrene	ND		0.20	0.036	ug/L		04/14/23 08:21	04/18/23 15:20	1
Pyrene	ND		0.20	0.040	ug/L		04/14/23 08:21	04/18/23 15:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/14/23 08:21*	*04/18/23 15:20*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/14/23 08:21*	*04/18/23 15:20*	*1*
Terphenyl-d14	*134*		*33 - 138*	*04/14/23 08:21*	*04/18/23 15:20*	*1*

Lab Sample ID: LCS 400-620825/2-A
Matrix: Water
Analysis Batch: 621246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 620825

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	103		ug/L		86	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	122		ug/L		102	49 - 120
Benzo[a]anthracene	120	122		ug/L		102	61 - 135
Benzo[a]pyrene	120	121		ug/L		101	52 - 120
Benzo[b]fluoranthene	120	118		ug/L		99	53 - 134
Benzo[g,h,i]perylene	120	123		ug/L		102	47 - 133
Benzo[k]fluoranthene	120	99.5		ug/L		83	57 - 134
Chrysene	120	112		ug/L		94	55 - 122
Dibenz(a,h)anthracene	120	130		ug/L		109	48 - 146
Fluoranthene	120	119		ug/L		99	54 - 128
Fluorene	120	123		ug/L		102	45 - 125
Indeno[1,2,3-cd]pyrene	120	116		ug/L		97	43 - 142
1-Methylnaphthalene	120	105		ug/L		88	41 - 120
2-Methylnaphthalene	120	108		ug/L		90	32 - 124
Phenanthrene	120	110		ug/L		92	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*15 - 122*
Nitrobenzene-d5	*78*		*19 - 130*
Terphenyl-d14	*94*		*33 - 138*

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/19/23 14:40	04/24/23 16:59	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/19/23 14:40	04/24/23 16:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*04/19/23 14:40*	*04/24/23 16:59*	*1*
Nitrobenzene-d5	*99*		*19 - 130*	*04/19/23 14:40*	*04/24/23 16:59*	*1*
Terphenyl-d14	*135*		*33 - 138*	*04/19/23 14:40*	*04/24/23 16:59*	*1*

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Methylnaphthalene	120	98.4		ug/L		82	41 - 120
2-Methylnaphthalene	120	97.1		ug/L		81	32 - 124

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*
Nitrobenzene-d5	*85*		*19 - 130*
Terphenyl-d14	*101*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-621798/1-A
Matrix: Water
Analysis Batch: 621824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621798

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/21/23 11:59	04/21/23 14:31	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/21/23 11:59	04/21/23 14:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*04/21/23 11:59*	*04/21/23 14:31*	*1*

Lab Sample ID: LCS 400-621798/2-A
Matrix: Water
Analysis Batch: 621824

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621798

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-D bromo-3-Chloropropane	0.101	0.0941		ug/L		94	60 - 140
1,2-D bromoethane	0.101	0.103		ug/L		103	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-621798/3-A
Matrix: Water
Analysis Batch: 621824

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621798

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.0974		ug/L		97	60 - 140	3	30
1,2-D bromoethane			0.101	0.105		ug/L		104	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/12/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State:	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60697537 – 3.2.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):
Melissa Remiger, Mary Massa, Brett Howell

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

SAMPLER NAME(S) (Print):
M. Massa, T. Jenkins

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; bret.howell@aecom.com

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
IR#
1.3°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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041223-8260-BP	4/12/2023	0000	Water	2					2	X			
	TB-ROX-041223-8011-BP	4/12/2023	0000	Water	2					2		X		
	MW23-ROX-041223	4/12/2023	1305	Water	6			2		8	X	X	X	X

400-236045 COC

MM 4/12/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 9818, 5564 3932 9807, 5564 3932 9792	4/12/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/13/23	Time: 9:18
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1599702, 1599703, 1599704, 1599705, 1599706, 1599707

5/16/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-236045-1

Login Number: 236045
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.3°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236045-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236117-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/30/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041323-8260	P114R-ROX-041323
TB-ROX-041323-8011	MW24-ROX-041323-EB
MW13-ROX-041323	MW24-ROX-041323

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 dibenz(a,h)anthracene and indeno[1,2,3-cd]pyrene were detected in method blank MB 400-621132/1-A. VOC and SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. The continuing calibration verification (CCV) for 1,4-dioxane and hexachlorocyclopentadiene were outside evaluation criteria, biased low. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-621132/1-A	PAHs	Dibenz(a,h)anthracene	0.153 µg/L
MB 400-621132/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0595 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times

(5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS 400-622160/1003	VOCs	2,2-Dichloropropane	**140**	NA	52-135
LCS/LCSD 400-621132/4-A/5-A	SVOCs	Benzenethiol	**5/6**	16	10-120/30
LCS/LCSD 400-621132/2-A/3-A	SVOCs	Benzoic acid	62/29	**73**	10-144/30
LCS/LCSD 400-621132/2-A/3-A	SVOCs	2-Chlorophenol	73/52	**33**	40-120/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-041323	SVOCs	Benzenethiol	**UJ**
P114R-ROX-041323	SVOCs	Benzenethiol	**UJ**
MW24-ROX-041323	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for 1,4-dioxane and hexachlorocyclopentadiene were outside evaluation criteria, biased low. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-041323	VOCs	Bromomethane	**UJ**
P114R-ROX-041323	VOCs	Bromomethane	**UJ**
MW24-ROX-041323	VOCs	Bromomethane	**UJ**
MW13-ROX-041323	SVOCs	1,4-Dioxane	**UJ**
P114R-ROX-041323	SVOCs	1,4-Dioxane	**UJ**
MW24-ROX-041323	SVOCs	1,4-Dioxane	**UJ**
MW13-ROX-041323	SVOCs	Hexachlorocyclopentadiene	**UJ**
P114R-ROX-041323	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW24-ROX-041323	SVOCs	Hexachlorocyclopentadiene	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 4/28/2023 8:04:58 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236117-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
4/28/2023 8:04:58 AM

Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 27
Surrogate Summary 28
Method Summary 30
Chronicle 31
QC Association 35
QC Sample Results 37
Chain of Custody 48
Receipt Checklists 49
Certification Summary 50

Job ID: 400-236117-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236117-1

Receipt
The samples were received on 4/14/2023 9:03 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.4°C

GC/MS VOA
Method 8260B: The laboratory control sample (LCS) for analytical batch 400-622160 recovered outside control limits for the following analyte: 2,2-Dichloropropane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041323-8260 (400-236117-1), MW13-ROX-041323 (400-236117-3), P114R-ROX-041323 (400-236117-4), MW24-ROX-041323-EB (400-236117-5) and MW24-ROX-041323 (400-236117-6). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-613356 was outside method criteria for the following analyte(s): Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621132 and analytical batch 400-621302 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621302 recovered above the upper control limit for 4-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621302 recovered above the upper control limit for Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-621132 and analytical batch 400-621302 recovered outside control limits for the following analytes: Benzoic acid and 2-Chlorophenol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621302 recovered outside acceptance criteria, low biased, for 1,4-Dioxane and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D_LL: The method blank for preparation batch 400-621132 and analytical batch 400-621486 contained Indeno[1,2,3-cd]pyrene and Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-622077 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-236117-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236117-1	TB-ROX-041323-8260	Water	04/13/23 12:00	04/14/23 09:03
400-236117-2	TB-ROX-041323-8011	Water	04/13/23 12:00	04/14/23 09:03
400-236117-3	MW13-ROX-041323	Water	04/13/23 10:00	04/14/23 09:03
400-236117-4	P114R-ROX-041323	Water	04/13/23 11:45	04/14/23 09:03
400-236117-5	MW24-ROX-041323-EB	Water	04/13/23 13:00	04/14/23 09:03
400-236117-6	MW24-ROX-041323	Water	04/13/23 13:50	04/14/23 09:03

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: TB-ROX-041323-8260 — Lab Sample ID: 400-236117-1

No Detections.

Client Sample ID: TB-ROX-041323-8011 — Lab Sample ID: 400-236117-2

No Detections.

Client Sample ID: MW13-ROX-041323 — Lab Sample ID: 400-236117-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.91	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	1.1		1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: P114R-ROX-041323 — Lab Sample ID: 400-236117-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.31	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	1.1		1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW24-ROX-041323-EB — Lab Sample ID: 400-236117-5

No Detections.

Client Sample ID: MW24-ROX-041323 — Lab Sample ID: 400-236117-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: TB-ROX-041323-8260
Date Collected: 04/13/23 12:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 19:36	1
Acrolein	ND		20	3.3	ug/L			04/25/23 19:36	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 19:36	1
Benzene	ND		1.0	0.13	ug/L			04/25/23 19:36	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 19:36	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 19:36	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 19:36	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 19:36	1
Bromomethane	ND		1.0	0.98	ug/L			04/25/23 19:36	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 19:36	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 19:36	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 19:36	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 19:36	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 19:36	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 19:36	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 19:36	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 19:36	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 19:36	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 19:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 19:36	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 19:36	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 19:36	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 19:36	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 19:36	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 19:36	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 19:36	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 19:36	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 19:36	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 19:36	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 19:36	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/25/23 19:36	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 19:36	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 19:36	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 19:36	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 19:36	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 19:36	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 19:36	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 19:36	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 19:36	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 19:36	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/25/23 19:36	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 19:36	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 19:36	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 19:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 19:36	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 19:36	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 19:36	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 19:36	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 19:36	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: TB-ROX-041323-8260
Date Collected: 04/13/23 12:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 19:36	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 19:36	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 19:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 19:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 19:36	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 19:36	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 19:36	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 19:36	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 19:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 19:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 19:36	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 19:36	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 19:36	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 19:36	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 19:36	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 19:36	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 19:36	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 19:36	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 19:36	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 19:36	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/25/23 19:36*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*04/25/23 19:36*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/25/23 19:36*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: TB-ROX-041323-8011
Date Collected: 04/13/23 12:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		04/24/23 13:58	04/24/23 19:07	1
1,2-D bromoethane	ND		0.021	0.016	ug/L		04/24/23 13:58	04/24/23 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*04/24/23 13:58*	*04/24/23 19:07*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW13-ROX-041323
Date Collected: 04/13/23 10:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 19:59	1
Acrolein	ND		20	3.3	ug/L			04/25/23 19:59	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 19:59	1
Benzene	**0.91**	**J**	1.0	0.13	ug/L			04/25/23 19:59	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 19:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 19:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 19:59	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 19:59	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/25/23 19:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 19:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 19:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 19:59	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 19:59	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 19:59	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 19:59	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 19:59	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 19:59	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 19:59	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 19:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 19:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 19:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 19:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 19:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 19:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 19:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 19:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 19:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 19:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 19:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 19:59	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/25/23 19:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 19:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 19:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 19:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 19:59	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 19:59	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 19:59	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 19:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 19:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 19:59	1
Methyl tert-butyl ether	**1.1**		1.0	0.22	ug/L			04/25/23 19:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 19:59	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 19:59	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 19:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 19:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 19:59	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 19:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 19:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 19:59	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW13-ROX-041323
Date Collected: 04/13/23 10:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 19:59	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 19:59	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 19:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 19:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 19:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 19:59	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 19:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 19:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 19:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 19:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 19:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 19:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 19:59	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 19:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 19:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 19:59	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 19:59	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 19:59	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 19:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 19:59	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/25/23 19:59*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*04/25/23 19:59*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*04/25/23 19:59*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 17:54	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/17/23 10:18	04/19/23 17:54	1
Anthracene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 17:54	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/17/23 10:18	04/19/23 17:54	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/17/23 10:18	04/19/23 17:54	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/17/23 10:18	04/19/23 17:54	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/17/23 10:18	04/19/23 17:54	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/17/23 10:18	04/19/23 17:54	1
Chrysene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/19/23 17:54	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/17/23 10:18	04/19/23 17:54	1
Fluoranthene	ND		0.20	0.067	ug/L		04/17/23 10:18	04/19/23 17:54	1
Fluorene	ND		0.20	0.11	ug/L		04/17/23 10:18	04/19/23 17:54	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/19/23 17:54	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/19/23 17:54	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/17/23 10:18	04/19/23 17:54	1
Phenanthrene	ND		0.20	0.035	ug/L		04/17/23 10:18	04/19/23 17:54	1
Pyrene	ND		0.20	0.039	ug/L		04/17/23 10:18	04/19/23 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*15 - 122*	*04/17/23 10:18*	*04/19/23 17:54*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*04/17/23 10:18*	*04/19/23 17:54*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW13-ROX-041323
Date Collected: 04/13/23 10:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*94*		*33 - 138*	*04/17/23 10:18*	*04/19/23 17:54*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/17/23 10:18	04/18/23 15:11	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/17/23 10:18	04/18/23 15:11	1
Benzoic acid	ND	*1	30	7.2	ug/L		04/17/23 10:18	04/18/23 15:11	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/17/23 10:18	04/18/23 15:11	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/17/23 10:18	04/18/23 15:11	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/17/23 10:18	04/18/23 15:11	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/17/23 10:18	04/18/23 15:11	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/17/23 10:18	04/18/23 15:11	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/17/23 10:18	04/18/23 15:11	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/17/23 10:18	04/18/23 15:11	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/17/23 10:18	04/18/23 15:11	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/17/23 10:18	04/18/23 15:11	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/17/23 10:18	04/18/23 15:11	1
2-Chlorophenol	ND	*1	9.9	2.2	ug/L		04/17/23 10:18	04/18/23 15:11	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/17/23 10:18	04/18/23 15:11	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:11	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:11	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/17/23 10:18	04/18/23 15:11	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/17/23 10:18	04/18/23 15:11	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/17/23 10:18	04/18/23 15:11	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/17/23 10:18	04/18/23 15:11	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:11	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/17/23 10:18	04/18/23 15:11	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/17/23 10:18	04/18/23 15:11	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/17/23 10:18	04/18/23 15:11	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/17/23 10:18	04/18/23 15:11	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/17/23 10:18	04/18/23 15:11	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:11	1
1,4-Dioxane	ND	UJ	9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:11	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:11	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:11	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/17/23 10:18	04/18/23 15:11	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/17/23 10:18	04/18/23 15:11	1
Indene	ND		9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:11	1
Isophorone	ND		9.9	0.14	ug/L		04/17/23 10:18	04/18/23 15:11	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/17/23 10:18	04/18/23 15:11	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/17/23 10:18	04/18/23 15:11	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/17/23 10:18	04/18/23 15:11	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/17/23 10:18	04/18/23 15:11	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/17/23 10:18	04/18/23 15:11	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/17/23 10:18	04/18/23 15:11	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/17/23 10:18	04/18/23 15:11	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/17/23 10:18	04/18/23 15:11	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/17/23 10:18	04/18/23 15:11	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW13-ROX-041323

Date Collected: 04/13/23 10:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/17/23 10:18	04/18/23 15:11	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/17/23 10:18	04/18/23 15:11	1
Pentachlorophenol	ND		20	1.4	ug/L		04/17/23 10:18	04/18/23 15:11	1
Phenol	ND		9.9	2.6	ug/L		04/17/23 10:18	04/18/23 15:11	1
Pyridine	ND		9.9	3.2	ug/L		04/17/23 10:18	04/18/23 15:11	1
Quinoline	ND		9.9	4.4	ug/L		04/17/23 10:18	04/18/23 15:11	1
2,4,5-Trichlorophenol	ND		9.9	3.6	ug/L		04/17/23 10:18	04/18/23 15:11	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/17/23 10:18	04/18/23 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*04/17/23 10:18*	*04/18/23 15:11*	*1*
2-Fluorophenol	*46*		*13 - 113*	*04/17/23 10:18*	*04/18/23 15:11*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/17/23 10:18*	*04/18/23 15:11*	*1*
Phenol-d5	*70*		*17 - 127*	*04/17/23 10:18*	*04/18/23 15:11*	*1*
Terphenyl-d14	*63*		*44 - 149*	*04/17/23 10:18*	*04/18/23 15:11*	*1*
2,4,6-Tribromophenol	*88*		*26 - 150*	*04/17/23 10:18*	*04/18/23 15:11*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		04/24/23 13:58	04/24/23 19:27	1
1,2-D bromoethane	ND		0.021	0.016	ug/L		04/24/23 13:58	04/24/23 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*51 - 149*	*04/24/23 13:58*	*04/24/23 19:27*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: P114R-ROX-041323
Date Collected: 04/13/23 11:45
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 20:21	1
Acrolein	ND		20	3.3	ug/L			04/25/23 20:21	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 20:21	1
Benzene	**0.31**	**J**	1.0	0.13	ug/L			04/25/23 20:21	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 20:21	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 20:21	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 20:21	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 20:21	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/25/23 20:21	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 20:21	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 20:21	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 20:21	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 20:21	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 20:21	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 20:21	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 20:21	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 20:21	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 20:21	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 20:21	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 20:21	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 20:21	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 20:21	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 20:21	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 20:21	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 20:21	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 20:21	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 20:21	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 20:21	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 20:21	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 20:21	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/25/23 20:21	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 20:21	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 20:21	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 20:21	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 20:21	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 20:21	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 20:21	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 20:21	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 20:21	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 20:21	1
Methyl tert-butyl ether	**1.1**		1.0	0.22	ug/L			04/25/23 20:21	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 20:21	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 20:21	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 20:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 20:21	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 20:21	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 20:21	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 20:21	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 20:21	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: P114R-ROX-041323
Date Collected: 04/13/23 11:45
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 20:21	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 20:21	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 20:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 20:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 20:21	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 20:21	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 20:21	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 20:21	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 20:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 20:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 20:21	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 20:21	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 20:21	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 20:21	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 20:21	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 20:21	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 20:21	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 20:21	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 20:21	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 20:21	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/25/23 20:21*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*04/25/23 20:21*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*04/25/23 20:21*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/17/23 10:18	04/19/23 18:12	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/17/23 10:18	04/19/23 18:12	1
Anthracene	ND		0.20	0.031	ug/L		04/17/23 10:18	04/19/23 18:12	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/17/23 10:18	04/19/23 18:12	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/17/23 10:18	04/19/23 18:12	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/17/23 10:18	04/19/23 18:12	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/17/23 10:18	04/19/23 18:12	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/17/23 10:18	04/19/23 18:12	1
Chrysene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/19/23 18:12	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/17/23 10:18	04/19/23 18:12	1
Fluoranthene	ND		0.20	0.067	ug/L		04/17/23 10:18	04/19/23 18:12	1
Fluorene	ND		0.20	0.11	ug/L		04/17/23 10:18	04/19/23 18:12	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/19/23 18:12	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/19/23 18:12	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/17/23 10:18	04/19/23 18:12	1
Phenanthrene	ND		0.20	0.035	ug/L		04/17/23 10:18	04/19/23 18:12	1
Pyrene	ND		0.20	0.039	ug/L		04/17/23 10:18	04/19/23 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*15 - 122*	*04/17/23 10:18*	*04/19/23 18:12*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*04/17/23 10:18*	*04/19/23 18:12*	*1*

Client Sample ID: P114R-ROX-041323
Date Collected: 04/13/23 11:45
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	97		33 - 138	04/17/23 10:18	04/19/23 18:12	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/17/23 10:18	04/18/23 15:33	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/17/23 10:18	04/18/23 15:33	1
Benzoic acid	ND	*1	29	7.2	ug/L		04/17/23 10:18	04/18/23 15:33	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/17/23 10:18	04/18/23 15:33	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/17/23 10:18	04/18/23 15:33	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		04/17/23 10:18	04/18/23 15:33	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/17/23 10:18	04/18/23 15:33	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/17/23 10:18	04/18/23 15:33	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/17/23 10:18	04/18/23 15:33	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/17/23 10:18	04/18/23 15:33	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/17/23 10:18	04/18/23 15:33	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/17/23 10:18	04/18/23 15:33	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/17/23 10:18	04/18/23 15:33	1
2-Chlorophenol	ND	*1	9.8	2.2	ug/L		04/17/23 10:18	04/18/23 15:33	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/17/23 10:18	04/18/23 15:33	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 15:33	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 15:33	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		04/17/23 10:18	04/18/23 15:33	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/17/23 10:18	04/18/23 15:33	1
Diethyl phthalate	ND		9.8	0.24	ug/L		04/17/23 10:18	04/18/23 15:33	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 15:33	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 15:33	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		04/17/23 10:18	04/18/23 15:33	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/17/23 10:18	04/18/23 15:33	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/17/23 10:18	04/18/23 15:33	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/17/23 10:18	04/18/23 15:33	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/17/23 10:18	04/18/23 15:33	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 15:33	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/17/23 10:18	04/18/23 15:33	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 15:33	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 15:33	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/17/23 10:18	04/18/23 15:33	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/17/23 10:18	04/18/23 15:33	1
Indene	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 15:33	1
Isophorone	ND		9.8	0.14	ug/L		04/17/23 10:18	04/18/23 15:33	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/17/23 10:18	04/18/23 15:33	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/17/23 10:18	04/18/23 15:33	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/17/23 10:18	04/18/23 15:33	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/17/23 10:18	04/18/23 15:33	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/17/23 10:18	04/18/23 15:33	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/17/23 10:18	04/18/23 15:33	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/17/23 10:18	04/18/23 15:33	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/17/23 10:18	04/18/23 15:33	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 15:33	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: P114R-ROX-041323

Date Collected: 04/13/23 11:45
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-4

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/17/23 10:18	04/18/23 15:33	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/17/23 10:18	04/18/23 15:33	1
Pentachlorophenol	ND		20	1.4	ug/L		04/17/23 10:18	04/18/23 15:33	1
Phenol	ND		9.8	2.6	ug/L		04/17/23 10:18	04/18/23 15:33	1
Pyridine	ND		9.8	3.1	ug/L		04/17/23 10:18	04/18/23 15:33	1
Quinoline	ND		9.8	4.4	ug/L		04/17/23 10:18	04/18/23 15:33	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/17/23 10:18	04/18/23 15:33	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*46 - 124*	*04/17/23 10:18*	*04/18/23 15:33*	*1*
2-Fluorophenol	*25*		*13 - 113*	*04/17/23 10:18*	*04/18/23 15:33*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/17/23 10:18*	*04/18/23 15:33*	*1*
Phenol-d5	*60*		*17 - 127*	*04/17/23 10:18*	*04/18/23 15:33*	*1*
Terphenyl-d14	*63*		*44 - 149*	*04/17/23 10:18*	*04/18/23 15:33*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*04/17/23 10:18*	*04/18/23 15:33*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/24/23 13:58	04/24/23 20:08	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/24/23 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*51 - 149*	*04/24/23 13:58*	*04/24/23 20:08*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW24-ROX-041323-EB
Date Collected: 04/13/23 13:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 20:44	1
Acrolein	ND		20	3.3	ug/L			04/25/23 20:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 20:44	1
Benzene	ND		1.0	0.13	ug/L			04/25/23 20:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 20:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 20:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 20:44	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 20:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/25/23 20:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 20:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 20:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 20:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 20:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 20:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 20:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 20:44	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 20:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 20:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 20:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 20:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 20:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 20:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 20:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 20:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 20:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 20:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 20:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 20:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 20:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 20:44	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/25/23 20:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 20:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 20:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 20:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 20:44	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 20:44	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 20:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 20:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 20:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 20:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/25/23 20:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 20:44	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 20:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 20:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 20:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 20:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 20:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 20:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 20:44	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW24-ROX-041323-EB

Date Collected: 04/13/23 13:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-5

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 20:44	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 20:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 20:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 20:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 20:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 20:44	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 20:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 20:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 20:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 20:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 20:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 20:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 20:44	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 20:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 20:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 20:44	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 20:44	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 20:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 20:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 20:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 119*		*04/25/23 20:44*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*04/25/23 20:44*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*04/25/23 20:44*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 18:29	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/17/23 10:18	04/19/23 18:29	1
Anthracene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 18:29	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/17/23 10:18	04/19/23 18:29	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/19/23 18:29	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/17/23 10:18	04/19/23 18:29	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/17/23 10:18	04/19/23 18:29	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/17/23 10:18	04/19/23 18:29	1
Chrysene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/19/23 18:29	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/17/23 10:18	04/19/23 18:29	1
Fluoranthene	ND		0.20	0.067	ug/L		04/17/23 10:18	04/19/23 18:29	1
Fluorene	ND		0.20	0.11	ug/L		04/17/23 10:18	04/19/23 18:29	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/19/23 18:29	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/19/23 18:29	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/17/23 10:18	04/19/23 18:29	1
Phenanthrene	ND		0.20	0.036	ug/L		04/17/23 10:18	04/19/23 18:29	1
Pyrene	ND		0.20	0.040	ug/L		04/17/23 10:18	04/19/23 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*15 - 122*	*04/17/23 10:18*	*04/19/23 18:29*	*1*
Nitrobenzene-d5	*92*		*19 - 130*	*04/17/23 10:18*	*04/19/23 18:29*	*1*

Client Sample ID: MW24-ROX-041323-EB
Date Collected: 04/13/23 13:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*113*		*33 - 138*	*04/17/23 10:18*	*04/19/23 18:29*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		04/17/23 10:18	04/18/23 15:55	1
Benzenethiol	ND	*-	9.9	1.7	ug/L		04/17/23 10:18	04/18/23 15:55	1
Benzoic acid	ND	*1	30	7.2	ug/L		04/17/23 10:18	04/18/23 15:55	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/17/23 10:18	04/18/23 15:55	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/17/23 10:18	04/18/23 15:55	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/17/23 10:18	04/18/23 15:55	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/17/23 10:18	04/18/23 15:55	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/17/23 10:18	04/18/23 15:55	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/17/23 10:18	04/18/23 15:55	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/17/23 10:18	04/18/23 15:55	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/17/23 10:18	04/18/23 15:55	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		04/17/23 10:18	04/18/23 15:55	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/17/23 10:18	04/18/23 15:55	1
2-Chlorophenol	ND	*1	9.9	2.2	ug/L		04/17/23 10:18	04/18/23 15:55	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/17/23 10:18	04/18/23 15:55	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:55	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:55	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/17/23 10:18	04/18/23 15:55	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/17/23 10:18	04/18/23 15:55	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/17/23 10:18	04/18/23 15:55	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/17/23 10:18	04/18/23 15:55	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:55	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/17/23 10:18	04/18/23 15:55	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/17/23 10:18	04/18/23 15:55	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/17/23 10:18	04/18/23 15:55	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/17/23 10:18	04/18/23 15:55	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/17/23 10:18	04/18/23 15:55	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:55	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:55	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/17/23 10:18	04/18/23 15:55	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/17/23 10:18	04/18/23 15:55	1
Hexachloroethane	ND		9.9	4.2	ug/L		04/17/23 10:18	04/18/23 15:55	1
Indene	ND		9.9	0.99	ug/L		04/17/23 10:18	04/18/23 15:55	1
Isophorone	ND		9.9	0.14	ug/L		04/17/23 10:18	04/18/23 15:55	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/17/23 10:18	04/18/23 15:55	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/17/23 10:18	04/18/23 15:55	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/17/23 10:18	04/18/23 15:55	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/17/23 10:18	04/18/23 15:55	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/17/23 10:18	04/18/23 15:55	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/17/23 10:18	04/18/23 15:55	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/17/23 10:18	04/18/23 15:55	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/17/23 10:18	04/18/23 15:55	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/17/23 10:18	04/18/23 15:55	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW24-ROX-041323-EB

Date Collected: 04/13/23 13:00
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-5

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/17/23 10:18	04/18/23 15:55	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/17/23 10:18	04/18/23 15:55	1
Pentachlorophenol	ND		20	1.4	ug/L		04/17/23 10:18	04/18/23 15:55	1
Phenol	ND		9.9	2.6	ug/L		04/17/23 10:18	04/18/23 15:55	1
Pyridine	ND		9.9	3.2	ug/L		04/17/23 10:18	04/18/23 15:55	1
Quinoline	ND		9.9	4.4	ug/L		04/17/23 10:18	04/18/23 15:55	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/17/23 10:18	04/18/23 15:55	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/17/23 10:18	04/18/23 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*04/17/23 10:18*	*04/18/23 15:55*	*1*
2-Fluorophenol	*36*		*13 - 113*	*04/17/23 10:18*	*04/18/23 15:55*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/17/23 10:18*	*04/18/23 15:55*	*1*
Phenol-d5	*58*		*17 - 127*	*04/17/23 10:18*	*04/18/23 15:55*	*1*
Terphenyl-d14	*75*		*44 - 149*	*04/17/23 10:18*	*04/18/23 15:55*	*1*
2,4,6-Tribromophenol	*65*		*26 - 150*	*04/17/23 10:18*	*04/18/23 15:55*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.028	0.016	ug/L		04/24/23 13:58	04/24/23 20:49	1
1,2-D bromoethane	ND		0.019	0.014	ug/L		04/24/23 13:58	04/24/23 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*51 - 149*	*04/24/23 13:58*	*04/24/23 20:49*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW24-ROX-041323
Date Collected: 04/13/23 13:50
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 21:07	1
Acrolein	ND		20	3.3	ug/L			04/25/23 21:07	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 21:07	1
Benzene	ND		1.0	0.13	ug/L			04/25/23 21:07	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 21:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 21:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 21:07	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 21:07	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/25/23 21:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 21:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 21:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 21:07	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 21:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 21:07	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 21:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 21:07	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 21:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 21:07	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 21:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 21:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 21:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 21:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 21:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 21:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 21:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 21:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 21:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 21:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 21:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 21:07	1
2,2-Dichloropropane	ND	*+	1.0	0.50	ug/L			04/25/23 21:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 21:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 21:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 21:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 21:07	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 21:07	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 21:07	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 21:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 21:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 21:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/25/23 21:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 21:07	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 21:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 21:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 21:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 21:07	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 21:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 21:07	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 21:07	1

Client Sample ID: MW24-ROX-041323
Date Collected: 04/13/23 13:50
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 21:07	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 21:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 21:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 21:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 21:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 21:07	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 21:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 21:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 21:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 21:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 21:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 21:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 21:07	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 21:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 21:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 21:07	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 21:07	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 21:07	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 21:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 21:07	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/25/23 21:07*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*04/25/23 21:07*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/25/23 21:07*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/17/23 10:18	04/19/23 18:46	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/17/23 10:18	04/19/23 18:46	1
Anthracene	ND		0.19	0.031	ug/L		04/17/23 10:18	04/19/23 18:46	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/17/23 10:18	04/19/23 18:46	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/17/23 10:18	04/19/23 18:46	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/17/23 10:18	04/19/23 18:46	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/17/23 10:18	04/19/23 18:46	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/17/23 10:18	04/19/23 18:46	1
Chrysene	ND		0.19	0.071	ug/L		04/17/23 10:18	04/19/23 18:46	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/17/23 10:18	04/19/23 18:46	1
Fluoranthene	ND		0.19	0.065	ug/L		04/17/23 10:18	04/19/23 18:46	1
Fluorene	ND		0.19	0.11	ug/L		04/17/23 10:18	04/19/23 18:46	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/17/23 10:18	04/19/23 18:46	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/17/23 10:18	04/19/23 18:46	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/17/23 10:18	04/19/23 18:46	1
Phenanthrene	ND		0.19	0.034	ug/L		04/17/23 10:18	04/19/23 18:46	1
Pyrene	ND		0.19	0.038	ug/L		04/17/23 10:18	04/19/23 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*15 - 122*	*04/17/23 10:18*	*04/19/23 18:46*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/17/23 10:18*	*04/19/23 18:46*	*1*

Client Sample ID: MW24-ROX-041323
Date Collected: 04/13/23 13:50
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	118		33 - 138	04/17/23 10:18	04/19/23 18:46	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/17/23 10:18	04/18/23 16:17	1
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		04/17/23 10:18	04/18/23 16:17	1
Benzoic acid	ND	*1	29	7.0	ug/L		04/17/23 10:18	04/18/23 16:17	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/17/23 10:18	04/18/23 16:17	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/17/23 10:18	04/18/23 16:17	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/17/23 10:18	04/18/23 16:17	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/17/23 10:18	04/18/23 16:17	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/17/23 10:18	04/18/23 16:17	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/17/23 10:18	04/18/23 16:17	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/17/23 10:18	04/18/23 16:17	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/17/23 10:18	04/18/23 16:17	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/17/23 10:18	04/18/23 16:17	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/17/23 10:18	04/18/23 16:17	1
2-Chlorophenol	ND	*1	9.5	2.1	ug/L		04/17/23 10:18	04/18/23 16:17	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/17/23 10:18	04/18/23 16:17	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/17/23 10:18	04/18/23 16:17	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/17/23 10:18	04/18/23 16:17	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/17/23 10:18	04/18/23 16:17	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/17/23 10:18	04/18/23 16:17	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/17/23 10:18	04/18/23 16:17	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/17/23 10:18	04/18/23 16:17	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/17/23 10:18	04/18/23 16:17	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/17/23 10:18	04/18/23 16:17	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/17/23 10:18	04/18/23 16:17	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/17/23 10:18	04/18/23 16:17	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/17/23 10:18	04/18/23 16:17	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/17/23 10:18	04/18/23 16:17	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/17/23 10:18	04/18/23 16:17	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		04/17/23 10:18	04/18/23 16:17	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/17/23 10:18	04/18/23 16:17	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/17/23 10:18	04/18/23 16:17	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/17/23 10:18	04/18/23 16:17	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/17/23 10:18	04/18/23 16:17	1
Indene	ND		9.5	0.95	ug/L		04/17/23 10:18	04/18/23 16:17	1
Isophorone	ND		9.5	0.13	ug/L		04/17/23 10:18	04/18/23 16:17	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/17/23 10:18	04/18/23 16:17	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/17/23 10:18	04/18/23 16:17	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/17/23 10:18	04/18/23 16:17	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/17/23 10:18	04/18/23 16:17	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/17/23 10:18	04/18/23 16:17	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/17/23 10:18	04/18/23 16:17	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/17/23 10:18	04/18/23 16:17	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/17/23 10:18	04/18/23 16:17	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/17/23 10:18	04/18/23 16:17	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: MW24-ROX-041323

Date Collected: 04/13/23 13:50
Date Received: 04/14/23 09:03

Lab Sample ID: 400-236117-6

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.2	ug/L		04/17/23 10:18	04/18/23 16:17	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/17/23 10:18	04/18/23 16:17	1
Pentachlorophenol	ND		19	1.3	ug/L		04/17/23 10:18	04/18/23 16:17	1
Phenol	ND		9.5	2.5	ug/L		04/17/23 10:18	04/18/23 16:17	1
Pyridine	ND		9.5	3.1	ug/L		04/17/23 10:18	04/18/23 16:17	1
Quinoline	ND		9.5	4.3	ug/L		04/17/23 10:18	04/18/23 16:17	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/17/23 10:18	04/18/23 16:17	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/17/23 10:18	04/18/23 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*04/17/23 10:18*	*04/18/23 16:17*	*1*
2-Fluorophenol	*37*		*13 - 113*	*04/17/23 10:18*	*04/18/23 16:17*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*04/17/23 10:18*	*04/18/23 16:17*	*1*
Phenol-d5	*73*		*17 - 127*	*04/17/23 10:18*	*04/18/23 16:17*	*1*
Terphenyl-d14	*87*		*44 - 149*	*04/17/23 10:18*	*04/18/23 16:17*	*1*
2,4,6-Tribromophenol	*82*		*26 - 150*	*04/17/23 10:18*	*04/18/23 16:17*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/24/23 13:58	04/24/23 20:29	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/24/23 13:58	04/24/23 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/24/23 13:58*	*04/24/23 20:29*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236117-1	TB-ROX-041323-8260	107	109	95
400-236117-3	MW13-ROX-041323	108	106	92
400-236117-4	P114R-ROX-041323	108	108	93
400-236117-5	MW24-ROX-041323-EB	109	107	93
400-236117-6	MW24-ROX-041323	108	108	95
LCS 400-622160/1003	Lab Control Sample	109	99	96
MB 400-622160/5	Method Blank	104	110	95

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236117-3	MW13-ROX-041323	78	46	79	70	63	88
400-236117-4	P114R-ROX-041323	76	25	78	60	63	86
400-236117-5	MW24-ROX-041323-EB	75	36	76	58	75	65
400-236117-6	MW24-ROX-041323	84	37	86	73	87	82
LCS 400-621132/2-A	Lab Control Sample	83	48	80	79	82	88
LCS 400-621132/4-A	Lab Control Sample	82	56	82	78	87	75
LCSD 400-621132/3-A	Lab Control Sample Dup	77	23	75	61	75	83
LCSD 400-621132/5-A	Lab Control Sample Dup	91	38	89	69	94	76
MB 400-621132/1-A	Method Blank	80	15	79	54	85	59

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236117-3	MW13-ROX-041323	96	93	94
400-236117-4	P114R-ROX-041323	97	96	97
400-236117-5	MW24-ROX-041323-EB	99	92	113
400-236117-6	MW24-ROX-041323	95	94	118
LCS 400-621132/2-A	Lab Control Sample	83	84	92
LCSD 400-621132/3-A	Lab Control Sample Dup	74	85	82
MB 400-621132/1-A	Method Blank	102	100	118

Surrogate Legend

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB2
Lab Sample ID	Client Sample ID	(51-149)
400-236117-2	TB-ROX-041323-8011	98
400-236117-3	MW13-ROX-041323	102
400-236117-4	P114R-ROX-041323	109
400-236117-5	MW24-ROX-041323-EB	108
400-236117-6	MW24-ROX-041323	112
LCS 400-622064/2-A	Lab Control Sample	89
LCSD 400-622064/3-A	Lab Control Sample Dup	97
MB 400-622064/1-A	Method Blank	74

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236117-1

Client Sample ID: TB-ROX-041323-8260
Lab Sample ID: 400-236117-1
Date Collected: 04/13/23 12:00
Matrix: Water
Date Received: 04/14/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622160	04/25/23 19:36	CAR	EET PEN

Client Sample ID: TB-ROX-041323-8011
Lab Sample ID: 400-236117-2
Date Collected: 04/13/23 12:00
Matrix: Water
Date Received: 04/14/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.7 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 19:07	PG	EET PEN

Client Sample ID: MW13-ROX-041323
Lab Sample ID: 400-236117-3
Date Collected: 04/13/23 10:00
Matrix: Water
Date Received: 04/14/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622160	04/25/23 19:59	CAR	EET PEN
Total/NA	Prep	3520C			253.6 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 15:11	S1B	EET PEN
Total/NA	Prep	3520C			253.6 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 17:54	PP1	EET PEN
Total/NA	Prep	8011			33.8 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 19:27	PG	EET PEN

Client Sample ID: P114R-ROX-041323
Lab Sample ID: 400-236117-4
Date Collected: 04/13/23 11:45
Matrix: Water
Date Received: 04/14/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622160	04/25/23 20:21	CAR	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 15:33	S1B	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 18:12	PP1	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 20:08	PG	EET PEN

Client Sample ID: MW24-ROX-041323-EB
Lab Sample ID: 400-236117-5
Date Collected: 04/13/23 13:00
Matrix: Water
Date Received: 04/14/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622160	04/25/23 20:44	CAR	EET PEN
Total/NA	Prep	3520C			253 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 15:55	S1B	EET PEN

Client Sample ID: MW24-ROX-041323-EB

Lab Sample ID: 400-236117-5

Date Collected: 04/13/23 13:00

Matrix: Water

Date Received: 04/14/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			253 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 18:29	PP1	EET PEN
Total/NA	Prep	8011			36.9 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 20:49	PG	EET PEN

Client Sample ID: MW24-ROX-041323

Lab Sample ID: 400-236117-6

Date Collected: 04/13/23 13:50

Matrix: Water

Date Received: 04/14/23 09:03

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622160	04/25/23 21:07	CAR	EET PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 16:17	S1B	EET PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 18:46	PP1	EET PEN
Total/NA	Prep	8011			36 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 20:29	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621132/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 12:36	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 17:02	PP1	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622064/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 16:23	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622160/5

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622160	04/25/23 12:24	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621132/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 12:58	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621486	04/19/23 17:20	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621132/4-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 13:42	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622064/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 16:44	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622160/1003
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622160	04/25/23 11:14	CAR	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621132/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 13:20	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621486	04/19/23 17:37	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621132/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 14:04	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-622064/3-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 17:04	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236117-1	TB-ROX-041323-8260	Total/NA	Water	8260B	
400-236117-3	MW13-ROX-041323	Total/NA	Water	8260B	
400-236117-4	P114R-ROX-041323	Total/NA	Water	8260B	
400-236117-5	MW24-ROX-041323-EB	Total/NA	Water	8260B	
400-236117-6	MW24-ROX-041323	Total/NA	Water	8260B	
MB 400-622160/5	Method Blank	Total/NA	Water	8260B	
LCS 400-622160/1003	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236117-3	MW13-ROX-041323	Total/NA	Water	3520C	
400-236117-4	P114R-ROX-041323	Total/NA	Water	3520C	
400-236117-5	MW24-ROX-041323-EB	Total/NA	Water	3520C	
400-236117-6	MW24-ROX-041323	Total/NA	Water	3520C	
MB 400-621132/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621132/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621132/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621132/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-621132/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 621302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236117-3	MW13-ROX-041323	Total/NA	Water	8270D	621132
400-236117-4	P114R-ROX-041323	Total/NA	Water	8270D	621132
400-236117-5	MW24-ROX-041323-EB	Total/NA	Water	8270D	621132
400-236117-6	MW24-ROX-041323	Total/NA	Water	8270D	621132
MB 400-621132/1-A	Method Blank	Total/NA	Water	8270D	621132
LCS 400-621132/2-A	Lab Control Sample	Total/NA	Water	8270D	621132
LCS 400-621132/4-A	Lab Control Sample	Total/NA	Water	8270D	621132
LCSD 400-621132/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	621132
LCSD 400-621132/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	621132

Analysis Batch: 621486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236117-3	MW13-ROX-041323	Total/NA	Water	8270D LL	621132
400-236117-4	P114R-ROX-041323	Total/NA	Water	8270D LL	621132
400-236117-5	MW24-ROX-041323-EB	Total/NA	Water	8270D LL	621132
400-236117-6	MW24-ROX-041323	Total/NA	Water	8270D LL	621132
MB 400-621132/1-A	Method Blank	Total/NA	Water	8270D LL	621132
LCS 400-621132/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621132
LCSD 400-621132/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	621132

GC Semi VOA

Prep Batch: 622064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236117-2	TB-ROX-041323-8011	Total/NA	Water	8011	
400-236117-3	MW13-ROX-041323	Total/NA	Water	8011	
400-236117-4	P114R-ROX-041323	Total/NA	Water	8011	
400-236117-5	MW24-ROX-041323-EB	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 622064 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236117-6	MW24-ROX-041323	Total/NA	Water	8011	
MB 400-622064/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622064/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622064/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236117-2	TB-ROX-041323-8011	Total/NA	Water	8011	622064
400-236117-3	MW13-ROX-041323	Total/NA	Water	8011	622064
400-236117-4	P114R-ROX-041323	Total/NA	Water	8011	622064
400-236117-5	MW24-ROX-041323-EB	Total/NA	Water	8011	622064
400-236117-6	MW24-ROX-041323	Total/NA	Water	8011	622064
MB 400-622064/1-A	Method Blank	Total/NA	Water	8011	622064
LCS 400-622064/2-A	Lab Control Sample	Total/NA	Water	8011	622064
LCSD 400-622064/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622064

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622160/5
Matrix: Water
Analysis Batch: 622160

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/25/23 12:24	1
Acrolein	ND		20	3.3	ug/L			04/25/23 12:24	1
Acrylonitrile	ND		10	2.8	ug/L			04/25/23 12:24	1
Benzene	ND		1.0	0.13	ug/L			04/25/23 12:24	1
Bromobenzene	ND		1.0	0.54	ug/L			04/25/23 12:24	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/25/23 12:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/25/23 12:24	1
Bromoform	ND		5.0	0.25	ug/L			04/25/23 12:24	1
Bromomethane	ND		1.0	0.98	ug/L			04/25/23 12:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/25/23 12:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/25/23 12:24	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/25/23 12:24	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/25/23 12:24	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/25/23 12:24	1
Chloroethane	ND		1.0	0.76	ug/L			04/25/23 12:24	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/25/23 12:24	1
Chloroform	ND		1.0	1.0	ug/L			04/25/23 12:24	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/25/23 12:24	1
Chloromethane	ND		1.0	0.32	ug/L			04/25/23 12:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/25/23 12:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/25/23 12:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/25/23 12:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/25/23 12:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/25/23 12:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/25/23 12:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/25/23 12:24	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/25/23 12:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 12:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 12:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 12:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/25/23 12:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/25/23 12:24	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/25/23 12:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/25/23 12:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/25/23 12:24	1
2-Hexanone	ND		25	1.4	ug/L			04/25/23 12:24	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/25/23 12:24	1
Methylene bromide	ND		5.0	0.22	ug/L			04/25/23 12:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/25/23 12:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/25/23 12:24	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/25/23 12:24	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/25/23 12:24	1
Naphthalene	ND		5.0	3.0	ug/L			04/25/23 12:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/25/23 12:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/25/23 12:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/25/23 12:24	1
o-Xylene	ND		5.0	0.60	ug/L			04/25/23 12:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/25/23 12:24	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622160/5
Matrix: Water
Analysis Batch: 622160

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/25/23 12:24	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/25/23 12:24	1
Styrene	ND		1.0	1.0	ug/L			04/25/23 12:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/25/23 12:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/25/23 12:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/25/23 12:24	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/25/23 12:24	1
Toluene	ND		1.0	0.41	ug/L			04/25/23 12:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/25/23 12:24	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/25/23 12:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/25/23 12:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/25/23 12:24	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/25/23 12:24	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/25/23 12:24	1
Trichloroethene	ND		1.0	0.15	ug/L			04/25/23 12:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/25/23 12:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/25/23 12:24	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/25/23 12:24	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/25/23 12:24	1
Vinyl acetate	ND		25	0.93	ug/L			04/25/23 12:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/25/23 12:24	1
Xylenes, Total	ND		10	1.6	ug/L			04/25/23 12:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/25/23 12:24*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*04/25/23 12:24*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/25/23 12:24*	*1*

Lab Sample ID: LCS 400-622160/1003
Matrix: Water
Analysis Batch: 622160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	249		ug/L		125	43 - 160
Acrolein	500	538		ug/L		108	38 - 160
Acrylonitrile	500	559		ug/L		112	64 - 142
Benzene	50.0	54.3		ug/L		109	70 - 130
Bromobenzene	50.0	52.3		ug/L		105	70 - 132
Bromochloromethane	50.0	50.7		ug/L		101	70 - 130
Bromodichloromethane	50.0	57.2		ug/L		114	67 - 133
Bromoform	50.0	58.7		ug/L		117	57 - 140
Bromomethane	50.0	46.7		ug/L		93	10 - 160
2-Butanone (MEK)	200	229		ug/L		115	61 - 145
Carbon disulfide	50.0	53.4		ug/L		107	61 - 137
Carbon tetrachloride	50.0	63.0		ug/L		126	61 - 137
Chlorobenzene	50.0	50.1		ug/L		100	70 - 130
Dibromochloromethane	50.0	52.8		ug/L		106	67 - 135
Chloroethane	50.0	40.1		ug/L		80	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622160/1003
Matrix: Water
Analysis Batch: 622160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	59.2		ug/L		118	10 - 160
Chloroform	50.0	55.3		ug/L		111	69 - 130
1-Chlorohexane	50.0	52.9		ug/L		106	69 - 130
Chloromethane	50.0	44.8		ug/L		90	58 - 137
cis-1,2-Dichloroethene	50.0	57.0		ug/L		114	68 - 130
cis-1,3-Dichloropropene	50.0	60.2		ug/L		120	69 - 132
1,2-Dichlorobenzene	50.0	49.4		ug/L		99	67 - 130
1,3-Dichlorobenzene	50.0	50.6		ug/L		101	70 - 130
1,4-Dichlorobenzene	50.0	49.9		ug/L		100	70 - 130
Dichlorodifluoromethane	50.0	38.5		ug/L		77	41 - 146
1,1-Dichloroethane	50.0	55.8		ug/L		112	70 - 130
1,2-Dichloroethane	50.0	57.2		ug/L		114	69 - 130
1,1-Dichloroethene	50.0	53.1		ug/L		106	63 - 134
1,2-Dichloropropane	50.0	56.5		ug/L		113	70 - 130
1,3-Dichloropropane	50.0	53.2		ug/L		106	70 - 130
2,2-Dichloropropane	50.0	70.1	*+	ug/L		140	52 - 135
1,1-Dichloropropene	50.0	55.2		ug/L		110	70 - 130
Ethylbenzene	50.0	51.5		ug/L		103	70 - 130
Ethyl methacrylate	50.0	55.7		ug/L		111	68 - 130
Hexachlorobutadiene	50.0	52.2		ug/L		104	53 - 140
2-Hexanone	200	213		ug/L		106	65 - 137
Isopropy benzene	50.0	49.6		ug/L		99	70 - 130
Methylene bromide	50.0	55.4		ug/L		111	70 - 130
Methylene Chloride	50.0	54.0		ug/L		108	66 - 135
4-Methyl-2-pentanone (MIBK)	200	231		ug/L		116	69 - 138
Methyl tert-butyl ether	50.0	58.1		ug/L		116	66 - 130
m-Xylene & p-Xylene	50.0	49.6		ug/L		99	70 - 130
Naphthalene	50.0	53.3		ug/L		107	47 - 149
n-Butylbenzene	50.0	55.4		ug/L		111	67 - 130
N-Propylbenzene	50.0	54.7		ug/L		109	70 - 130
o-Chlorotoluene	50.0	54.7		ug/L		109	70 - 130
o-Xylene	50.0	49.8		ug/L		100	70 - 130
p-Chlorotoluene	50.0	54.4		ug/L		109	70 - 130
p-Isopropyltoluene	50.0	54.0		ug/L		108	65 - 130
sec-Butylbenzene	50.0	53.6		ug/L		107	66 - 130
Styrene	50.0	49.9		ug/L		100	70 - 130
tert-Butylbenzene	50.0	56.3		ug/L		113	64 - 139
1,1,1,2-Tetrachloroethane	50.0	58.2		ug/L		116	67 - 131
1,1,2,2-Tetrachloroethane	50.0	56.0		ug/L		112	70 - 131
Tetrachloroethene	50.0	50.1		ug/L		100	65 - 130
Toluene	50.0	49.1		ug/L		98	70 - 130
trans-1,2-Dichloroethene	50.0	52.2		ug/L		104	70 - 130
trans-1,3-Dichloropropene	50.0	60.1		ug/L		120	63 - 130
1,2,3-Trichlorobenzene	50.0	53.9		ug/L		108	60 - 138
1,2,4-Trichlorobenzene	50.0	53.2		ug/L		106	60 - 140
1,1,1-Trichloroethane	50.0	58.1		ug/L		116	68 - 130
1,1,2-Trichloroethane	50.0	52.1		ug/L		104	70 - 130
Trichloroethene	50.0	51.8		ug/L		104	70 - 130
Trichlorofluoromethane	50.0	50.4		ug/L		101	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622160/1003
Matrix: Water
Analysis Batch: 622160

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	56.5		ug/L		113	70 - 130
1,2,4-Trimethy benzene	50.0	54.7		ug/L		109	70 - 130
1,3,5-Trimethy benzene	50.0	54.2		ug/L		108	69 - 130
Vinyl acetate	100	130		ug/L		130	26 - 160
Vinyl chloride	50.0	41.8		ug/L		84	59 - 136
Xylenes, Total	100	99.4		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621132/1-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
Benzenethiol	ND		10	1.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
Benzoic acid	ND		30	7.3	ug/L		04/17/23 10:18	04/18/23 12:36	1
Benzyl alcohol	ND		10	2.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/17/23 10:18	04/18/23 12:36	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/17/23 10:18	04/18/23 12:36	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/17/23 10:18	04/18/23 12:36	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Chloroaniline	ND		10	3.4	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Chlorophenol	ND		10	2.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Dibenzofuran	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Diethyl phthalate	ND		10	0.24	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/17/23 10:18	04/18/23 12:36	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
1,4-Dioxane	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621132/1-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
Hexachloroethane	ND		10	4.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
Indene	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Isophorone	ND		10	0.14	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Methylphenol	ND		10	1.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Nitroaniline	ND		10	2.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
3-Nitroaniline	ND		10	1.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Nitroaniline	ND		10	1.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
Nitrobenzene	ND		10	0.13	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Nitrophenol	ND		10	5.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Nitrophenol	ND		10	2.1	ug/L		04/17/23 10:18	04/18/23 12:36	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/17/23 10:18	04/18/23 12:36	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/17/23 10:18	04/18/23 12:36	1
Pentachlorophenol	ND		20	1.4	ug/L		04/17/23 10:18	04/18/23 12:36	1
Phenol	ND		10	2.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
Pyridine	ND		10	3.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
Quinoline	ND		10	4.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/17/23 10:18	04/18/23 12:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
2-Fluorophenol	*15*		*13 - 113*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
Phenol-d5	*54*		*17 - 127*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
Terphenyl-d14	*85*		*44 - 149*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
2,4,6-Tribromophenol	*59*		*26 - 150*	*04/17/23 10:18*	*04/18/23 12:36*	*1*

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	115		ug/L		96	21 - 120
Benzoic acid	554	345		ug/L		62	10 - 144
Benzyl alcohol	120	96.1		ug/L		80	28 - 120
Bis(2-chloroethoxy)methane	120	88.9		ug/L		74	47 - 120
Bis(2-chloroethyl)ether	120	84.1		ug/L		70	44 - 120
bis (2-chloroisopropyl) ether	120	90.2		ug/L		75	33 - 121
Bis(2-ethylhexyl) phthalate	120	106		ug/L		88	52 - 147
4-Bromophenyl phenyl ether	120	102		ug/L		85	54 - 122
Butyl benzyl phthalate	120	105		ug/L		87	54 - 133
4-Chloroaniline	120	108		ug/L		90	26 - 120
4-Chloro-3-methylphenol	120	104		ug/L		87	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	100		ug/L		84	52 - 121
2-Chlorophenol	120	88.0		ug/L		73	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	107		ug/L		89	56 - 122
3,3'-Dichlorobenzidine	160	206		ug/L		129	36 - 132
2,4-Dichlorophenol	120	104		ug/L		87	49 - 120
Diethyl phthalate	120	109		ug/L		91	50 - 137
2,4-Dimethylphenol	120	83.2		ug/L		69	48 - 120
Dimethyl phthalate	120	100		ug/L		84	57 - 124
Di-n-butyl phthalate	120	113		ug/L		94	58 - 126
4,6-Dinitro-ortho-cresol	240	210		ug/L		88	23 - 148
2,4-Dinitrophenol	240	255		ug/L		106	10 - 150
2,4-Dinitrotoluene	120	107		ug/L		89	54 - 142
2,6-Dinitrotoluene	120	102		ug/L		85	55 - 130
Di-n-octyl phthalate	120	109		ug/L		91	57 - 138
1,4-Dioxane	120	66.6		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	100		ug/L		83	45 - 124
Hexachlorobenzene	120	107		ug/L		89	52 - 129
Hexachlorocyclopentadiene	120	71.9		ug/L		60	10 - 134
Hexachloroethane	120	96.4		ug/L		80	20 - 120
Indene	120	94.2		ug/L		79	49 - 120
Isophorone	120	90.2		ug/L		75	48 - 120
2-Methylphenol	120	107		ug/L		89	46 - 124
3 & 4 Methylphenol	120	105		ug/L		87	45 - 120
2-Nitroaniline	120	106		ug/L		88	51 - 145
3-Nitroaniline	120	97.2		ug/L		81	37 - 127
4-Nitroaniline	120	125		ug/L		104	36 - 137
Nitrobenzene	120	92.1		ug/L		77	45 - 120
2-Nitrophenol	120	107		ug/L		89	40 - 124
4-Nitrophenol	240	281		ug/L		117	23 - 146
N-Nitrosodimethylamine	120	95.9		ug/L		80	29 - 137
N-Nitrosodi-n-propylamine	120	108		ug/L		90	45 - 120
N-Nitrosodiphenylamine	119	101		ug/L		85	54 - 120
Pentachlorophenol	240	190		ug/L		79	31 - 130
Phenol	120	90.2		ug/L		75	11 - 120
Pyridine	240	151		ug/L		63	16 - 120
Quinoline	120	106		ug/L		89	49 - 130
2,4,5-Trichlorophenol	120	102		ug/L		85	51 - 136
2,4,6-Trichlorophenol	120	98.5		ug/L		82	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*80*		*36 - 126*
Phenol-d5	*79*		*17 - 127*
Terphenyl-d14	*82*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*88*		*26 - 150*

Lab Sample ID: LCS 400-621132/4-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	6.32	J *-	ug/L		5	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*46 - 124*
2-Fluorophenol	*56*		*13 - 113*
Nitrobenzene-d5	*82*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*75*		*26 - 150*

Lab Sample ID: LCSD 400-621132/3-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	102		ug/L		85	21 - 120	12	30
Benzoic acid			554	161	*1	ug/L		29	10 - 144	73	30
Benzyl alcohol			120	92.8		ug/L		77	28 - 120	3	30
Bis(2-chloroethoxy)methane			120	87.9		ug/L		73	47 - 120	1	30
Bis(2-chloroethyl)ether			120	90.8		ug/L		76	44 - 120	8	30
bis (2-chloroisopropyl) ether			120	87.1		ug/L		73	33 - 121	3	30
Bis(2-ethylhexyl) phthalate			120	102		ug/L		85	52 - 147	4	30
4-Bromophenyl phenyl ether			120	98.9		ug/L		82	54 - 122	3	30
Butyl benzyl phthalate			120	99.9		ug/L		83	54 - 133	5	30
4-Chloroaniline			120	110		ug/L		91	26 - 120	2	30
4-Chloro-3-methylphenol			120	98.3		ug/L		82	48 - 131	6	30
2-Chloronaphthalene			120	98.9		ug/L		82	52 - 121	2	30
2-Chlorophenol			120	62.8	*1	ug/L		52	40 - 120	33	30
4-Chlorophenyl phenyl ether			120	101		ug/L		85	56 - 125	3	30
Dibenz[a,h]acridine			120	97.7		ug/L		82	31 - 150	3	30
Dibenzofuran			120	104		ug/L		87	56 - 122	2	30
3,3'-Dichlorobenzidine			160	199		ug/L		124	36 - 132	3	30
2,4-Dichlorophenol			120	92.0		ug/L		77	49 - 120	12	30
Diethyl phthalate			120	107		ug/L		89	50 - 137	2	30
2,4-Dimethylphenol			120	80.9		ug/L		67	48 - 120	3	30
Dimethyl phthalate			120	99.1		ug/L		83	57 - 124	1	30
Di-n-butyl phthalate			120	110		ug/L		92	58 - 126	2	30
4,6-Dinitro-ortho-cresol			240	200		ug/L		84	23 - 148	5	30
2,4-Dinitrophenol			240	232		ug/L		97	10 - 150	9	30
2,4-Dinitrotoluene			120	105		ug/L		87	54 - 142	2	30
2,6-Dinitrotoluene			120	99.5		ug/L		83	55 - 130	3	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621132/3-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	105		ug/L		88	57 - 138	3	30
1,4-Dioxane			120	64.8		ug/L		54	31 - 120	3	30
1,2-Diphenylhydrazine (as Azobenzene)			120	98.5		ug/L		82	45 - 124	2	30
Hexachlorobenzene			120	107		ug/L		89	52 - 129	1	30
Hexachlorocyclopentadiene			120	71.0		ug/L		59	10 - 134	1	30
Hexachloroethane			120	91.1		ug/L		76	20 - 120	6	30
Indene			120	91.1		ug/L		76	49 - 120	3	30
Isophorone			120	89.4		ug/L		74	48 - 120	1	30
2-Methylphenol			120	98.4		ug/L		82	46 - 124	8	30
3 & 4 Methylphenol			120	96.4		ug/L		80	45 - 120	8	30
2-Nitroaniline			120	103		ug/L		86	51 - 145	2	30
3-Nitroaniline			120	96.4		ug/L		80	37 - 127	1	30
4-Nitroaniline			120	121		ug/L		101	36 - 137	3	30
Nitrobenzene			120	90.2		ug/L		75	45 - 120	2	30
2-Nitrophenol			120	94.8		ug/L		79	40 - 124	12	30
4-Nitrophenol			240	261		ug/L		109	23 - 146	7	30
N-Nitrosodimethylamine			120	90.2		ug/L		75	29 - 137	6	30
N-Nitrosodi-n-propylamine			120	104		ug/L		87	45 - 120	4	30
N-Nitrosodiphenylamine			119	99.1		ug/L		83	54 - 120	2	30
Pentachlorophenol			240	180		ug/L		75	31 - 130	6	30
Phenol			120	71.8		ug/L		60	11 - 120	23	30
Pyridine			240	151		ug/L		63	16 - 120	0	30
Quinoline			120	105		ug/L		87	49 - 130	1	30
2,4,5-Trichlorophenol			120	96.5		ug/L		80	51 - 136	5	30
2,4,6-Trichlorophenol			120	93.0		ug/L		78	50 - 127	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*23*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*61*		*17 - 127*
Terphenyl-d14	*75*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

Lab Sample ID: LCSD 400-621132/5-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	7.44	J *-	ug/L		6	10 - 120	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*89*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621132/5-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	76		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621132/1-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 17:02	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/17/23 10:18	04/19/23 17:02	1
Anthracene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/17/23 10:18	04/19/23 17:02	1
Chrysene	ND		0.20	0.074	ug/L		04/17/23 10:18	04/19/23 17:02	1
Dibenz(a,h)anthracene	0.153	J	0.20	0.050	ug/L		04/17/23 10:18	04/19/23 17:02	1
Fluoranthene	ND		0.20	0.068	ug/L		04/17/23 10:18	04/19/23 17:02	1
Fluorene	ND		0.20	0.11	ug/L		04/17/23 10:18	04/19/23 17:02	1
Indeno[1,2,3-cd]pyrene	0.0595	J	0.20	0.043	ug/L		04/17/23 10:18	04/19/23 17:02	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/17/23 10:18	04/19/23 17:02	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/17/23 10:18	04/19/23 17:02	1
Phenanthrene	ND		0.20	0.036	ug/L		04/17/23 10:18	04/19/23 17:02	1
Pyrene	ND		0.20	0.040	ug/L		04/17/23 10:18	04/19/23 17:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	102		15 - 122	04/17/23 10:18	04/19/23 17:02	1
Nitrobenzene-d5	100		19 - 130	04/17/23 10:18	04/19/23 17:02	1
Terphenyl-d14	118		33 - 138	04/17/23 10:18	04/19/23 17:02	1

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	110		ug/L		92	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	122		ug/L		101	49 - 120
Benzo[a]anthracene	120	126		ug/L		105	61 - 135
Benzo[a]pyrene	120	120		ug/L		100	52 - 120
Benzo[b]fluoranthene	120	109		ug/L		91	53 - 134
Benzo[g,h,i]perylene	120	121		ug/L		101	47 - 133
Benzo[k]fluoranthene	120	98.7		ug/L		82	57 - 134
Chrysene	120	114		ug/L		95	55 - 122
Dibenz(a,h)anthracene	120	133		ug/L		110	48 - 146
Fluoranthene	120	112		ug/L		93	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluorene			120	128		ug/L		107	45 - 125		
Indeno[1,2,3-cd]pyrene			120	121		ug/L		101	43 - 142		
1-Methylnaphthalene			120	107		ug/L		89	41 - 120		
2-Methylnaphthalene			120	113		ug/L		94	32 - 124		
Phenanthrene			120	112		ug/L		94	48 - 120		
Pyrene			120	112		ug/L		93	48 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*15 - 122*
Nitrobenzene-d5	*84*		*19 - 130*
Terphenyl-d14	*92*		*33 - 138*

Lab Sample ID: LCSD 400-621132/3-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	98.3		ug/L		82	41 - 120	11	56
Acenaphthylene			120	110		ug/L		92	44 - 120	6	56
Anthracene			120	111		ug/L		93	49 - 120	9	51
Benzo[a]anthracene			120	114		ug/L		95	61 - 135	10	49
Benzo[a]pyrene			120	110		ug/L		92	52 - 120	8	50
Benzo[b]fluoranthene			120	101		ug/L		84	53 - 134	8	54
Benzo[g,h,i]perylene			120	107		ug/L		90	47 - 133	12	50
Benzo[k]fluoranthene			120	92.1		ug/L		77	57 - 134	7	52
Chrysene			120	103		ug/L		86	55 - 122	10	50
Dibenz(a,h)anthracene			120	120		ug/L		100	48 - 146	10	50
Fluoranthene			120	106		ug/L		88	54 - 128	6	52
Fluorene			120	117		ug/L		98	45 - 125	9	56
Indeno[1,2,3-cd]pyrene			120	108		ug/L		90	43 - 142	12	51
1-Methylnaphthalene			120	104		ug/L		86	41 - 120	3	55
2-Methylnaphthalene			120	107		ug/L		89	32 - 124	6	57
Phenanthrene			120	101		ug/L		84	48 - 120	11	56
Pyrene			120	102		ug/L		85	48 - 132	9	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*15 - 122*
Nitrobenzene-d5	*85*		*19 - 130*
Terphenyl-d14	*82*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622064/1-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/24/23 13:58	04/24/23 16:23	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-622064/1-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/24/23 16:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*04/24/23 13:58*	*04/24/23 16:23*	*1*

Lab Sample ID: LCS 400-622064/2-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622064

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.0901		ug/L		90	60 - 140		
1,2-D bromoethane			0.101	0.102		ug/L		101	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*51 - 149*

Lab Sample ID: LCSD 400-622064/3-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622064

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.0906		ug/L		90	60 - 140	1	30
1,2-D bromoethane			0.101	0.110		ug/L		109	60 - 140	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/13/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): J. Mayer, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

400-236117 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 0.4 IR11

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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041323-8260	4/13/2023	0000	Water	2					2	X			
	TB-ROX-041323-8011	4/13/2023	0000	Water	2					2		X		
	MW13-ROX-041323	4/13/2023	1000	Water	6			2		8	X	X	X	X
	P114R-ROX-041323	4/13/2023	1145	Water	6			2		8	X	X	X	X
	MW24-ROX-041323-EB	4/13/2023	1300	Water	6			2		8	X	X	X	X
	MW24-ROX-041323	4/13/2023	1350	Water	6			2		8	X	X	X	X

Relinquished by: (Signature) JOE MAYER	Received by: (Signature) FEDEX: 5564 3932 9781	Date: 4/13/2023	Time: 1600
Relinquished by: (Signature)	Received by: (Signature) Temp 0.4 IR11	Date: 4.14.23	Time: 9:03
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 130ct22

CUSTODY SEALS: 1599708, 1599709

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-236117-1

Login Number: 236117
List Number: 1
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236117-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400- 400-236185-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/31/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041423-8260	TB-ROX-041423-8011
MW5-ROX-041423	ROST4PZG-ROX-041423
MW28-ROX-041423	--

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 dibenz(a,h)anthracene and indeno[1,2,3-cd]pyrene were detected in the method blank. SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC or PAH surrogate recoveries were outside criteria in samples MW5-ROX-041423 and MW28-ROX-041423, respectively. Several VOC MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in sample MW5-ROX-041423. The continuing calibration verifications (CCV) for 1,4-dioxane and hexachlorocyclopentadiene were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-621132/1-A	PAHs	Dibenz(a,h)anthracene	0.153 µg/L
MB 400-621132/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0595 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS/LCSD 400-621132/4-A/5-A	SVOCs	Benzenethiol	**5/6**	16	10-120/30
LCS/LCSD 400-621132/2-A/3-A	SVOCs	Benzoic acid	62/29	**73**	10-144/30
LCS/LCSD 400-621132/2-A/3-A	SVOCs	2-Chlorophenol	73/52	**33**	40-120/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-041423	SVOCs	Benzenethiol	**UJ**
ROST4PZG-ROX-041423	SVOCs	Benzenethiol	**UJ**
MW28-ROX-041423	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW5-ROX-041423	SVOCs	Terphenyl-d14	**28**	44-149
MW28-ROX-041423	PAHs	2-Fluorobiphenyl	**125**	15-122
MW28-ROX-041423	PAHs	Nitrobenzene-d5	**180**	19-130

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, although not requested, sample MW5-ROX-041423 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
MW5-ROX-041423 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW5-ROX-041423 MS/MSD	VOCs	Acetone	99/65	**41**	43-150/30
MW5-ROX-041423 MS/MSD	VOCs	Acrolein	93/66	**34**	38-150/31
MW5-ROX-041423 MS/MSD	VOCs	Hexachlorobutadiene	108/74	**37**	31-149/36
MW5-ROX-041423 MS/MSD	VOCs	n-Butylbenzene	100/71	**34**	41-142/31

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data associated with MS/MSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-041423	VOCs	2-Chloroethyl vinyl ether	**UJ**

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 continuing calibration verifications (CCV) for 1,4-dioxane and hexachlorocyclopentadiene were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-041423	SVOCs	1,4-Dioxane	**UJ**
MW5-ROX-041423	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZG-ROX-041423	SVOCs	1,4-Dioxane	**UJ**
ROST4PZG-ROX-041423	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW28-ROX-041423	SVOCs	1,4-Dioxane	**UJ**
MW28-ROX-041423	SVOCs	Hexachlorocyclopentadiene	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Generated 4/28/2023 7:43:48 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236185-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



Generated
4/28/2023 7:43:48 AM

Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 23
Surrogate Summary 24
Method Summary 26
Chronicle 27
QC Association 31
QC Sample Results 33
Chain of Custody 47
Receipt Checklists 48
Certification Summary 49

Job ID: 400-236185-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236185-1

Receipt
The samples were received on 4/15/2023 7:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.1°C

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-622388 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-622388 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 400-622388 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041423-8260 (400-236185-1), MW5-ROX-041423 (400-236185-3), ROST4PZG-ROX-041423 (400-236185-4) and MW28-ROX-041423 (400-236185-5). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW5-ROX-041423 (400-236185-3). These results have been reported and qualified.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621132 and analytical batch 400-621302 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621302 recovered above the upper control limit for 4-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621302 recovered above the upper control limit for Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-621132 and analytical batch 400-621302 recovered outside control limits for the following analytes: Benzoic acid and 2-Chlorophenol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621302 recovered outside acceptance criteria, low biased, for 1,4-Dioxane and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D_LL: The method blank for preparation batch 400-621132 and analytical batch 400-621486 contained Indeno[1,2,3-cd]pyrene and Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D_LL: Surrogate recovery for the following sample was outside the upper control limit: MW28-ROX-041423 (400-236185-5).

Job ID: 400-236185-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622077 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236185-1	TB-ROX-041423-8260	Water	04/14/23 12:11	04/15/23 07:50
400-236185-2	TB-ROX-041423-8011	Water	04/14/23 12:11	04/15/23 07:50
400-236185-3	MW5-ROX-041423	Water	04/14/23 10:00	04/15/23 07:50
400-236185-4	ROST4PZG-ROX-041423	Water	04/14/23 11:15	04/15/23 07:50
400-236185-5	MW28-ROX-041423	Water	04/14/23 12:55	04/15/23 07:50

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: TB-ROX-041423-8260 — Lab Sample ID: 400-236185-1

No Detections.

Client Sample ID: TB-ROX-041423-8011 — Lab Sample ID: 400-236185-2

No Detections.

Client Sample ID: MW5-ROX-041423 — Lab Sample ID: 400-236185-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.31	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	2.9		1.0	0.22	ug/L	1		8260B	Total/NA
tert-Butylbenzene	1.0		1.0	0.63	ug/L	1		8260B	Total/NA
Trichloroethene	0.24	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: ROST4PZG-ROX-041423 — Lab Sample ID: 400-236185-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.0	0.13	ug/L	1		8260B	Total/NA

Client Sample ID: MW28-ROX-041423 — Lab Sample ID: 400-236185-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.31	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	1.9		1.0	0.22	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: TB-ROX-041423-8260
Date Collected: 04/14/23 12:11
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/26/23 19:25	1
Acrolein	ND		20	3.3	ug/L			04/26/23 19:25	1
Acrylonitrile	ND		10	2.8	ug/L			04/26/23 19:25	1
Benzene	ND		1.0	0.13	ug/L			04/26/23 19:25	1
Bromobenzene	ND		1.0	0.54	ug/L			04/26/23 19:25	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/26/23 19:25	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/26/23 19:25	1
Bromoform	ND		5.0	0.25	ug/L			04/26/23 19:25	1
Bromomethane	ND		1.0	0.98	ug/L			04/26/23 19:25	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/26/23 19:25	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/26/23 19:25	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/26/23 19:25	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/26/23 19:25	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/26/23 19:25	1
Chloroethane	ND		1.0	0.76	ug/L			04/26/23 19:25	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/26/23 19:25	1
Chloroform	ND		1.0	1.0	ug/L			04/26/23 19:25	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/26/23 19:25	1
Chloromethane	ND		1.0	0.32	ug/L			04/26/23 19:25	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/26/23 19:25	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/26/23 19:25	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/26/23 19:25	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/26/23 19:25	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/26/23 19:25	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/26/23 19:25	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/26/23 19:25	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/26/23 19:25	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 19:25	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 19:25	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 19:25	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 19:25	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/26/23 19:25	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/26/23 19:25	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/26/23 19:25	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/26/23 19:25	1
2-Hexanone	ND		25	1.4	ug/L			04/26/23 19:25	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/26/23 19:25	1
Methylene bromide	ND		5.0	0.22	ug/L			04/26/23 19:25	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/26/23 19:25	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/26/23 19:25	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/26/23 19:25	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/26/23 19:25	1
Naphthalene	ND		5.0	3.0	ug/L			04/26/23 19:25	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/26/23 19:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/23 19:25	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/26/23 19:25	1
o-Xylene	ND		5.0	0.60	ug/L			04/26/23 19:25	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/26/23 19:25	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/26/23 19:25	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: TB-ROX-041423-8260
Date Collected: 04/14/23 12:11
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/26/23 19:25	1
Styrene	ND		1.0	1.0	ug/L			04/26/23 19:25	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/26/23 19:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/26/23 19:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/26/23 19:25	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/26/23 19:25	1
Toluene	ND		1.0	0.41	ug/L			04/26/23 19:25	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 19:25	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/26/23 19:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/26/23 19:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/26/23 19:25	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/26/23 19:25	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/26/23 19:25	1
Trichloroethene	ND		1.0	0.15	ug/L			04/26/23 19:25	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/26/23 19:25	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/26/23 19:25	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/26/23 19:25	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/26/23 19:25	1
Vinyl acetate	ND		25	0.93	ug/L			04/26/23 19:25	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/26/23 19:25	1
Xylenes, Total	ND		10	1.6	ug/L			04/26/23 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/26/23 19:25*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/26/23 19:25*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/26/23 19:25*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: TB-ROX-041423-8011
Date Collected: 04/14/23 12:11
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/24/23 13:58	04/24/23 21:50	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/24/23 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*51 - 149*	*04/24/23 13:58*	*04/24/23 21:50*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: MW5-ROX-041423
Date Collected: 04/14/23 10:00
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	F2	25	10	ug/L			04/26/23 16:44	1
Acrolein	ND	F2	20	3.3	ug/L			04/26/23 16:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/26/23 16:44	1
Benzene	**0.31**	**J**	1.0	0.13	ug/L			04/26/23 16:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/26/23 16:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/26/23 16:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/26/23 16:44	1
Bromoform	ND		5.0	0.25	ug/L			04/26/23 16:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/26/23 16:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/26/23 16:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/26/23 16:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/26/23 16:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/26/23 16:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/26/23 16:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/26/23 16:44	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			04/26/23 16:44	1
Chloroform	ND		1.0	1.0	ug/L			04/26/23 16:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/26/23 16:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/26/23 16:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/26/23 16:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/26/23 16:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/26/23 16:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/26/23 16:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/26/23 16:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/26/23 16:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/26/23 16:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/26/23 16:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 16:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 16:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 16:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 16:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/26/23 16:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/26/23 16:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/26/23 16:44	1
Hexachlorobutadiene	ND	F2	5.0	0.90	ug/L			04/26/23 16:44	1
2-Hexanone	ND		25	1.4	ug/L			04/26/23 16:44	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/26/23 16:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/26/23 16:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/26/23 16:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/26/23 16:44	1
Methyl tert-butyl ether	**2.9**		1.0	0.22	ug/L			04/26/23 16:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/26/23 16:44	1
Naphthalene	ND		5.0	3.0	ug/L			04/26/23 16:44	1
n-Butylbenzene	ND	F2	1.0	0.76	ug/L			04/26/23 16:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/23 16:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/26/23 16:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/26/23 16:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/26/23 16:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/26/23 16:44	1

Client Sample ID: MW5-ROX-041423

Date Collected: 04/14/23 10:00
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/26/23 16:44	1
Styrene	ND		1.0	1.0	ug/L			04/26/23 16:44	1
tert-Butylbenzene	**1.0**		1.0	0.63	ug/L			04/26/23 16:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/26/23 16:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/26/23 16:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/26/23 16:44	1
Toluene	ND		1.0	0.41	ug/L			04/26/23 16:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 16:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/26/23 16:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/26/23 16:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/26/23 16:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/26/23 16:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/26/23 16:44	1
Trichloroethene	**0.24**	**J**	1.0	0.15	ug/L			04/26/23 16:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/26/23 16:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/26/23 16:44	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/26/23 16:44	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/26/23 16:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/26/23 16:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/26/23 16:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/26/23 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/26/23 16:44*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/26/23 16:44*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/26/23 16:44*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/17/23 10:18	04/19/23 19:04	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/17/23 10:18	04/19/23 19:04	1
Anthracene	ND		0.19	0.031	ug/L		04/17/23 10:18	04/19/23 19:04	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/17/23 10:18	04/19/23 19:04	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/17/23 10:18	04/19/23 19:04	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/17/23 10:18	04/19/23 19:04	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/17/23 10:18	04/19/23 19:04	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/17/23 10:18	04/19/23 19:04	1
Chrysene	ND		0.19	0.072	ug/L		04/17/23 10:18	04/19/23 19:04	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/17/23 10:18	04/19/23 19:04	1
Fluoranthene	ND		0.19	0.066	ug/L		04/17/23 10:18	04/19/23 19:04	1
Fluorene	ND		0.19	0.11	ug/L		04/17/23 10:18	04/19/23 19:04	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/17/23 10:18	04/19/23 19:04	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/17/23 10:18	04/19/23 19:04	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/17/23 10:18	04/19/23 19:04	1
Phenanthrene	ND		0.19	0.035	ug/L		04/17/23 10:18	04/19/23 19:04	1
Pyrene	ND		0.19	0.039	ug/L		04/17/23 10:18	04/19/23 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*15 - 122*	*04/17/23 10:18*	*04/19/23 19:04*	*1*
Nitrobenzene-d5	*92*		*19 - 130*	*04/17/23 10:18*	*04/19/23 19:04*	*1*

Client Sample ID: MW5-ROX-041423
Date Collected: 04/14/23 10:00
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*53*		*33 - 138*	*04/17/23 10:18*	*04/19/23 19:04*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/17/23 10:18	04/18/23 16:39	1
Benzenethiol	ND	*- UJ	9.7	1.7	ug/L		04/17/23 10:18	04/18/23 16:39	1
Benzoic acid	ND	*1	29	7.1	ug/L		04/17/23 10:18	04/18/23 16:39	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/17/23 10:18	04/18/23 16:39	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/17/23 10:18	04/18/23 16:39	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/17/23 10:18	04/18/23 16:39	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/17/23 10:18	04/18/23 16:39	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/17/23 10:18	04/18/23 16:39	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/17/23 10:18	04/18/23 16:39	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/17/23 10:18	04/18/23 16:39	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/17/23 10:18	04/18/23 16:39	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/17/23 10:18	04/18/23 16:39	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/17/23 10:18	04/18/23 16:39	1
2-Chlorophenol	ND	*1	9.7	2.1	ug/L		04/17/23 10:18	04/18/23 16:39	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/17/23 10:18	04/18/23 16:39	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/17/23 10:18	04/18/23 16:39	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/17/23 10:18	04/18/23 16:39	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/17/23 10:18	04/18/23 16:39	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/17/23 10:18	04/18/23 16:39	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/17/23 10:18	04/18/23 16:39	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/17/23 10:18	04/18/23 16:39	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/17/23 10:18	04/18/23 16:39	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/17/23 10:18	04/18/23 16:39	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/17/23 10:18	04/18/23 16:39	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/17/23 10:18	04/18/23 16:39	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/17/23 10:18	04/18/23 16:39	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/17/23 10:18	04/18/23 16:39	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/17/23 10:18	04/18/23 16:39	1
1,4-Dioxane	ND	UJ	9.7	0.97	ug/L		04/17/23 10:18	04/18/23 16:39	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/17/23 10:18	04/18/23 16:39	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/17/23 10:18	04/18/23 16:39	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/17/23 10:18	04/18/23 16:39	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/17/23 10:18	04/18/23 16:39	1
Indene	ND		9.7	0.97	ug/L		04/17/23 10:18	04/18/23 16:39	1
Isophorone	ND		9.7	0.14	ug/L		04/17/23 10:18	04/18/23 16:39	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/17/23 10:18	04/18/23 16:39	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/17/23 10:18	04/18/23 16:39	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/17/23 10:18	04/18/23 16:39	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/17/23 10:18	04/18/23 16:39	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/17/23 10:18	04/18/23 16:39	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/17/23 10:18	04/18/23 16:39	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/17/23 10:18	04/18/23 16:39	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/17/23 10:18	04/18/23 16:39	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/17/23 10:18	04/18/23 16:39	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: MW5-ROX-041423
Date Collected: 04/14/23 10:00
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/17/23 10:18	04/18/23 16:39	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/17/23 10:18	04/18/23 16:39	1
Pentachlorophenol	ND		19	1.4	ug/L		04/17/23 10:18	04/18/23 16:39	1
Phenol	ND		9.7	2.5	ug/L		04/17/23 10:18	04/18/23 16:39	1
Pyridine	ND		9.7	3.1	ug/L		04/17/23 10:18	04/18/23 16:39	1
Quinoline	ND		9.7	4.4	ug/L		04/17/23 10:18	04/18/23 16:39	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/17/23 10:18	04/18/23 16:39	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/17/23 10:18	04/18/23 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*56*		*46 - 124*	*04/17/23 10:18*	*04/18/23 16:39*	*1*
2-Fluorophenol	*34*		*13 - 113*	*04/17/23 10:18*	*04/18/23 16:39*	*1*
Nitrobenzene-d5	*59*		*36 - 126*	*04/17/23 10:18*	*04/18/23 16:39*	*1*
Phenol-d5	*51*		*17 - 127*	*04/17/23 10:18*	*04/18/23 16:39*	*1*
Terphenyl-d14	*28*	*S1-*	*44 - 149*	*04/17/23 10:18*	*04/18/23 16:39*	*1*
2,4,6-Tribromophenol	*59*		*26 - 150*	*04/17/23 10:18*	*04/18/23 16:39*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/24/23 13:58	04/24/23 22:10	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/24/23 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/24/23 13:58*	*04/24/23 22:10*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: ROST4PZG-ROX-041423

Date Collected: 04/14/23 11:15
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-4

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/26/23 19:52	1
Acrolein	ND		20	3.3	ug/L			04/26/23 19:52	1
Acrylonitrile	ND		10	2.8	ug/L			04/26/23 19:52	1
Benzene	**0.41**	**J**	1.0	0.13	ug/L			04/26/23 19:52	1
Bromobenzene	ND		1.0	0.54	ug/L			04/26/23 19:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/26/23 19:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/26/23 19:52	1
Bromoform	ND		5.0	0.25	ug/L			04/26/23 19:52	1
Bromomethane	ND		1.0	0.98	ug/L			04/26/23 19:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/26/23 19:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/26/23 19:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/26/23 19:52	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/26/23 19:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/26/23 19:52	1
Chloroethane	ND		1.0	0.76	ug/L			04/26/23 19:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/26/23 19:52	1
Chloroform	ND		1.0	1.0	ug/L			04/26/23 19:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/26/23 19:52	1
Chloromethane	ND		1.0	0.32	ug/L			04/26/23 19:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/26/23 19:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/26/23 19:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/26/23 19:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/26/23 19:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/26/23 19:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/26/23 19:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/26/23 19:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/26/23 19:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 19:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 19:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 19:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 19:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/26/23 19:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/26/23 19:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/26/23 19:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/26/23 19:52	1
2-Hexanone	ND		25	1.4	ug/L			04/26/23 19:52	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/26/23 19:52	1
Methylene bromide	ND		5.0	0.22	ug/L			04/26/23 19:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/26/23 19:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/26/23 19:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/26/23 19:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/26/23 19:52	1
Naphthalene	ND		5.0	3.0	ug/L			04/26/23 19:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/26/23 19:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/23 19:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/26/23 19:52	1
o-Xylene	ND		5.0	0.60	ug/L			04/26/23 19:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/26/23 19:52	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/26/23 19:52	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: ROST4PZG-ROX-041423
Date Collected: 04/14/23 11:15
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/26/23 19:52	1
Styrene	ND		1.0	1.0	ug/L			04/26/23 19:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/26/23 19:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/26/23 19:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/26/23 19:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/26/23 19:52	1
Toluene	ND		1.0	0.41	ug/L			04/26/23 19:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 19:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/26/23 19:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/26/23 19:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/26/23 19:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/26/23 19:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/26/23 19:52	1
Trichloroethene	ND		1.0	0.15	ug/L			04/26/23 19:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/26/23 19:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/26/23 19:52	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/26/23 19:52	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/26/23 19:52	1
Vinyl acetate	ND		25	0.93	ug/L			04/26/23 19:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/26/23 19:52	1
Xylenes, Total	ND		10	1.6	ug/L			04/26/23 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*04/26/23 19:52*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/26/23 19:52*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*04/26/23 19:52*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/17/23 10:18	04/19/23 19:21	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/17/23 10:18	04/19/23 19:21	1
Anthracene	ND		0.20	0.031	ug/L		04/17/23 10:18	04/19/23 19:21	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/17/23 10:18	04/19/23 19:21	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/17/23 10:18	04/19/23 19:21	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/17/23 10:18	04/19/23 19:21	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/17/23 10:18	04/19/23 19:21	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/17/23 10:18	04/19/23 19:21	1
Chrysene	ND		0.20	0.072	ug/L		04/17/23 10:18	04/19/23 19:21	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/17/23 10:18	04/19/23 19:21	1
Fluoranthene	ND		0.20	0.066	ug/L		04/17/23 10:18	04/19/23 19:21	1
Fluorene	ND		0.20	0.11	ug/L		04/17/23 10:18	04/19/23 19:21	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/19/23 19:21	1
1-Methylnaphthalene	ND		0.20	0.072	ug/L		04/17/23 10:18	04/19/23 19:21	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/17/23 10:18	04/19/23 19:21	1
Phenanthrene	ND		0.20	0.035	ug/L		04/17/23 10:18	04/19/23 19:21	1
Pyrene	ND		0.20	0.039	ug/L		04/17/23 10:18	04/19/23 19:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*15 - 122*	*04/17/23 10:18*	*04/19/23 19:21*	*1*
Nitrobenzene-d5	*92*		*19 - 130*	*04/17/23 10:18*	*04/19/23 19:21*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: ROST4PZG-ROX-041423
Date Collected: 04/14/23 11:15
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	115		33 - 138	04/17/23 10:18	04/19/23 19:21	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/17/23 10:18	04/18/23 17:01	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/17/23 10:18	04/18/23 17:01	1
Benzoic acid	ND	*1	29	7.1	ug/L		04/17/23 10:18	04/18/23 17:01	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/17/23 10:18	04/18/23 17:01	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/17/23 10:18	04/18/23 17:01	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/17/23 10:18	04/18/23 17:01	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/17/23 10:18	04/18/23 17:01	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/17/23 10:18	04/18/23 17:01	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/17/23 10:18	04/18/23 17:01	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/17/23 10:18	04/18/23 17:01	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/17/23 10:18	04/18/23 17:01	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/17/23 10:18	04/18/23 17:01	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/17/23 10:18	04/18/23 17:01	1
2-Chlorophenol	ND	*1	9.8	2.1	ug/L		04/17/23 10:18	04/18/23 17:01	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/17/23 10:18	04/18/23 17:01	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:01	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:01	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		04/17/23 10:18	04/18/23 17:01	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/17/23 10:18	04/18/23 17:01	1
Diethyl phthalate	ND		9.8	0.23	ug/L		04/17/23 10:18	04/18/23 17:01	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 17:01	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:01	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/17/23 10:18	04/18/23 17:01	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/17/23 10:18	04/18/23 17:01	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/17/23 10:18	04/18/23 17:01	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/17/23 10:18	04/18/23 17:01	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/17/23 10:18	04/18/23 17:01	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:01	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:01	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:01	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:01	1
Hexachlorocyclopentadiene	ND	UJ	20	2.5	ug/L		04/17/23 10:18	04/18/23 17:01	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/17/23 10:18	04/18/23 17:01	1
Indene	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:01	1
Isophorone	ND		9.8	0.14	ug/L		04/17/23 10:18	04/18/23 17:01	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/17/23 10:18	04/18/23 17:01	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/17/23 10:18	04/18/23 17:01	1
2-Nitroaniline	ND		9.8	2.1	ug/L		04/17/23 10:18	04/18/23 17:01	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/17/23 10:18	04/18/23 17:01	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/17/23 10:18	04/18/23 17:01	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/17/23 10:18	04/18/23 17:01	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/17/23 10:18	04/18/23 17:01	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/17/23 10:18	04/18/23 17:01	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 17:01	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: ROST4PZG-ROX-041423
Date Collected: 04/14/23 11:15
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/17/23 10:18	04/18/23 17:01	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/17/23 10:18	04/18/23 17:01	1
Pentachlorophenol	ND		20	1.4	ug/L		04/17/23 10:18	04/18/23 17:01	1
Phenol	ND		9.8	2.5	ug/L		04/17/23 10:18	04/18/23 17:01	1
Pyridine	ND		9.8	3.1	ug/L		04/17/23 10:18	04/18/23 17:01	1
Quinoline	ND		9.8	4.4	ug/L		04/17/23 10:18	04/18/23 17:01	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/17/23 10:18	04/18/23 17:01	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*46 - 124*	*04/17/23 10:18*	*04/18/23 17:01*	*1*
2-Fluorophenol	*15*		*13 - 113*	*04/17/23 10:18*	*04/18/23 17:01*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*04/17/23 10:18*	*04/18/23 17:01*	*1*
Phenol-d5	*39*		*17 - 127*	*04/17/23 10:18*	*04/18/23 17:01*	*1*
Terphenyl-d14	*56*		*44 - 149*	*04/17/23 10:18*	*04/18/23 17:01*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*04/17/23 10:18*	*04/18/23 17:01*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/24/23 13:58	04/24/23 22:31	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/24/23 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*04/24/23 13:58*	*04/24/23 22:31*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: MW28-ROX-041423

Date Collected: 04/14/23 12:55
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-5

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/26/23 20:18	1
Acrolein	ND		20	3.3	ug/L			04/26/23 20:18	1
Acrylonitrile	ND		10	2.8	ug/L			04/26/23 20:18	1
Benzene	**0.31**	**J**	1.0	0.13	ug/L			04/26/23 20:18	1
Bromobenzene	ND		1.0	0.54	ug/L			04/26/23 20:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/26/23 20:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/26/23 20:18	1
Bromoform	ND		5.0	0.25	ug/L			04/26/23 20:18	1
Bromomethane	ND		1.0	0.98	ug/L			04/26/23 20:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/26/23 20:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/26/23 20:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/26/23 20:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/26/23 20:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/26/23 20:18	1
Chloroethane	ND		1.0	0.76	ug/L			04/26/23 20:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/26/23 20:18	1
Chloroform	ND		1.0	1.0	ug/L			04/26/23 20:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/26/23 20:18	1
Chloromethane	ND		1.0	0.32	ug/L			04/26/23 20:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/26/23 20:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/26/23 20:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/26/23 20:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/26/23 20:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/26/23 20:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/26/23 20:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/26/23 20:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/26/23 20:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 20:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 20:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 20:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 20:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/26/23 20:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/26/23 20:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/26/23 20:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/26/23 20:18	1
2-Hexanone	ND		25	1.4	ug/L			04/26/23 20:18	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/26/23 20:18	1
Methylene bromide	ND		5.0	0.22	ug/L			04/26/23 20:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/26/23 20:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/26/23 20:18	1
Methyl tert-butyl ether	**1.9**		1.0	0.22	ug/L			04/26/23 20:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/26/23 20:18	1
Naphthalene	ND		5.0	3.0	ug/L			04/26/23 20:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/26/23 20:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/23 20:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/26/23 20:18	1
o-Xylene	ND		5.0	0.60	ug/L			04/26/23 20:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/26/23 20:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/26/23 20:18	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: MW28-ROX-041423
Date Collected: 04/14/23 12:55
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/26/23 20:18	1
Styrene	ND		1.0	1.0	ug/L			04/26/23 20:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/26/23 20:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/26/23 20:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/26/23 20:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/26/23 20:18	1
Toluene	ND		1.0	0.41	ug/L			04/26/23 20:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 20:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/26/23 20:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/26/23 20:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/26/23 20:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/26/23 20:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/26/23 20:18	1
Trichloroethene	ND		1.0	0.15	ug/L			04/26/23 20:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/26/23 20:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/26/23 20:18	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/26/23 20:18	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/26/23 20:18	1
Vinyl acetate	ND		25	0.93	ug/L			04/26/23 20:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/26/23 20:18	1
Xylenes, Total	ND		10	1.6	ug/L			04/26/23 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/26/23 20:18*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/26/23 20:18*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/26/23 20:18*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/17/23 10:18	04/19/23 19:38	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/17/23 10:18	04/19/23 19:38	1
Anthracene	ND		0.20	0.031	ug/L		04/17/23 10:18	04/19/23 19:38	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/17/23 10:18	04/20/23 18:47	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/17/23 10:18	04/20/23 18:47	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/17/23 10:18	04/20/23 18:47	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/17/23 10:18	04/20/23 18:47	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/17/23 10:18	04/20/23 18:47	1
Chrysene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/20/23 18:47	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/17/23 10:18	04/20/23 18:47	1
Fluoranthene	ND		0.20	0.067	ug/L		04/17/23 10:18	04/19/23 19:38	1
Fluorene	ND		0.20	0.11	ug/L		04/17/23 10:18	04/19/23 19:38	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/20/23 18:47	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/17/23 10:18	04/20/23 18:47	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/17/23 10:18	04/20/23 18:47	1
Phenanthrene	ND		0.20	0.035	ug/L		04/17/23 10:18	04/19/23 19:38	1
Pyrene	ND		0.20	0.039	ug/L		04/17/23 10:18	04/20/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*125*	*S1+*	*15 - 122*	*04/17/23 10:18*	*04/20/23 18:47*	*1*
Nitrobenzene-d5	*180*	*S1+*	*19 - 130*	*04/17/23 10:18*	*04/20/23 18:47*	*1*

Client Sample ID: MW28-ROX-041423
Date Collected: 04/14/23 12:55
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	123		33 - 138	04/17/23 10:18	04/20/23 18:47	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/17/23 10:18	04/18/23 17:23	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/17/23 10:18	04/18/23 17:23	1
Benzoic acid	ND	*1	30	7.2	ug/L		04/17/23 10:18	04/18/23 17:23	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/17/23 10:18	04/18/23 17:23	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/17/23 10:18	04/18/23 17:23	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		04/17/23 10:18	04/18/23 17:23	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/17/23 10:18	04/18/23 17:23	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/17/23 10:18	04/18/23 17:23	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/17/23 10:18	04/18/23 17:23	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/17/23 10:18	04/18/23 17:23	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/17/23 10:18	04/18/23 17:23	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/17/23 10:18	04/18/23 17:23	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/17/23 10:18	04/18/23 17:23	1
2-Chlorophenol	ND	*1	9.8	2.2	ug/L		04/17/23 10:18	04/18/23 17:23	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/17/23 10:18	04/18/23 17:23	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:23	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:23	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		04/17/23 10:18	04/18/23 17:23	1
2,4-Dichlorophenol	ND		9.8	3.0	ug/L		04/17/23 10:18	04/18/23 17:23	1
Diethyl phthalate	ND		9.8	0.24	ug/L		04/17/23 10:18	04/18/23 17:23	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 17:23	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:23	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		04/17/23 10:18	04/18/23 17:23	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/17/23 10:18	04/18/23 17:23	1
2,4-Dinitrophenol	ND		30	3.3	ug/L		04/17/23 10:18	04/18/23 17:23	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/17/23 10:18	04/18/23 17:23	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/17/23 10:18	04/18/23 17:23	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:23	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:23	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:23	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/17/23 10:18	04/18/23 17:23	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/17/23 10:18	04/18/23 17:23	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/17/23 10:18	04/18/23 17:23	1
Indene	ND		9.8	0.98	ug/L		04/17/23 10:18	04/18/23 17:23	1
Isophorone	ND		9.8	0.14	ug/L		04/17/23 10:18	04/18/23 17:23	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/17/23 10:18	04/18/23 17:23	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/17/23 10:18	04/18/23 17:23	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/17/23 10:18	04/18/23 17:23	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/17/23 10:18	04/18/23 17:23	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/17/23 10:18	04/18/23 17:23	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/17/23 10:18	04/18/23 17:23	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/17/23 10:18	04/18/23 17:23	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/17/23 10:18	04/18/23 17:23	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 17:23	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: MW28-ROX-041423
Date Collected: 04/14/23 12:55
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/17/23 10:18	04/18/23 17:23	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/17/23 10:18	04/18/23 17:23	1
Pentachlorophenol	ND		20	1.4	ug/L		04/17/23 10:18	04/18/23 17:23	1
Phenol	ND		9.8	2.6	ug/L		04/17/23 10:18	04/18/23 17:23	1
Pyridine	ND		9.8	3.1	ug/L		04/17/23 10:18	04/18/23 17:23	1
Quinoline	ND		9.8	4.4	ug/L		04/17/23 10:18	04/18/23 17:23	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/17/23 10:18	04/18/23 17:23	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/17/23 10:18	04/18/23 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*46 - 124*	*04/17/23 10:18*	*04/18/23 17:23*	*1*
2-Fluorophenol	*14*		*13 - 113*	*04/17/23 10:18*	*04/18/23 17:23*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*04/17/23 10:18*	*04/18/23 17:23*	*1*
Phenol-d5	*40*		*17 - 127*	*04/17/23 10:18*	*04/18/23 17:23*	*1*
Terphenyl-d14	*58*		*44 - 149*	*04/17/23 10:18*	*04/18/23 17:23*	*1*
2,4,6-Tribromophenol	*53*		*26 - 150*	*04/17/23 10:18*	*04/18/23 17:23*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/24/23 13:58	04/24/23 22:51	1
1,2-D bromoethane	ND		0.019	0.014	ug/L		04/24/23 13:58	04/24/23 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*120*		*51 - 149*	*04/24/23 13:58*	*04/24/23 22:51*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236185-1	TB-ROX-041423-8260	92	103	97
400-236185-3	MW5-ROX-041423	96	100	96
400-236185-3 MS	MW5-ROX-041423	91	98	96
400-236185-3 MSD	MW5-ROX-041423	95	96	98
400-236185-4	ROST4PZG-ROX-041423	91	100	100
400-236185-5	MW28-ROX-041423	92	104	97
LCS 400-622388/1002	Lab Control Sample	92	96	100
MB 400-622388/4	Method Blank	93	100	95

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236185-3	MW5-ROX-041423	56	34	59	51	28 S1-	59
400-236185-4	ROST4PZG-ROX-041423	60	15	63	39	56	60
400-236185-5	MW28-ROX-041423	59	14	61	40	58	53
LCS 400-621132/2-A	Lab Control Sample	83	48	80	79	82	88
LCS 400-621132/4-A	Lab Control Sample	82	56	82	78	87	75
LCSD 400-621132/3-A	Lab Control Sample Dup	77	23	75	61	75	83
LCSD 400-621132/5-A	Lab Control Sample Dup	91	38	89	69	94	76
MB 400-621132/1-A	Method Blank	80	15	79	54	85	59

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236185-3	MW5-ROX-041423	89	92	53
400-236185-4	ROST4PZG-ROX-041423	98	92	115
400-236185-5	MW28-ROX-041423	125 S1+	180 S1+	123
LCS 400-621132/2-A	Lab Control Sample	83	84	92
LCSD 400-621132/3-A	Lab Control Sample Dup	74	85	82
MB 400-621132/1-A	Method Blank	102	100	118

Surrogate Legend

FBP = 2-Fluorobiphenyl

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
		BFB2								
Lab Sample ID	Client Sample ID	(51-149)								
400-236185-2	TB-ROX-041423-8011	103								
400-236185-3	MW5-ROX-041423	112								
400-236185-4	ROST4PZG-ROX-041423	101								
400-236185-5	MW28-ROX-041423	120								
LCS 400-622064/2-A	Lab Control Sample	89								
LCSD 400-622064/3-A	Lab Control Sample Dup	97								
MB 400-622064/1-A	Method Blank	74								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: TB-ROX-041423-8260
Lab Sample ID: 400-236185-1
Date Collected: 04/14/23 12:11
Matrix: Water
Date Received: 04/15/23 07:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 19:25	BPO	EET PEN

Client Sample ID: TB-ROX-041423-8011
Lab Sample ID: 400-236185-2
Date Collected: 04/14/23 12:11
Matrix: Water
Date Received: 04/15/23 07:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.8 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 21:50	PG	EET PEN

Client Sample ID: MW5-ROX-041423
Lab Sample ID: 400-236185-3
Date Collected: 04/14/23 10:00
Matrix: Water
Date Received: 04/15/23 07:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 16:44	BPO	EET PEN
Total/NA	Prep	3520C			257.2 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 16:39	S1B	EET PEN
Total/NA	Prep	3520C			257.2 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 19:04	PP1	EET PEN
Total/NA	Prep	8011			35.6 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 22:10	PG	EET PEN

Client Sample ID: ROST4PZG-ROX-041423
Lab Sample ID: 400-236185-4
Date Collected: 04/14/23 11:15
Matrix: Water
Date Received: 04/15/23 07:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 19:52	BPO	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 17:01	S1B	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 19:21	PP1	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 22:31	PG	EET PEN

Client Sample ID: MW28-ROX-041423
Lab Sample ID: 400-236185-5
Date Collected: 04/14/23 12:55
Matrix: Water
Date Received: 04/15/23 07:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 20:18	BPO	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 17:23	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: MW28-ROX-041423

Lab Sample ID: 400-236185-5

Date Collected: 04/14/23 12:55
Date Received: 04/15/23 07:50

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			254 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 19:38	PP1	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621702	04/20/23 18:47	PP1	EET PEN
Total/NA	Prep	8011			36.6 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 22:51	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621132/1-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 12:36	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621486	04/19/23 17:02	PP1	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622064/1-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 16:23	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622388/4

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 16:18	BPO	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-621132/2-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 12:58	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621486	04/19/23 17:20	PP1	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621132/4-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 13:42	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622064/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 16:44	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622388/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 15:18	BPO	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621132/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 13:20	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	621486	04/19/23 17:37	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621132/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621132	04/17/23 10:18	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621302	04/18/23 14:04	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622064/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 17:04	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236185-1

Client Sample ID: MW5-ROX-041423
Date Collected: 04/14/23 10:00
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-3 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 18:05	BPO	EET PEN

Client Sample ID: MW5-ROX-041423
Date Collected: 04/14/23 10:00
Date Received: 04/15/23 07:50

Lab Sample ID: 400-236185-3 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622388	04/26/23 18:31	BPO	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-1	TB-ROX-041423-8260	Total/NA	Water	8260B	
400-236185-3	MW5-ROX-041423	Total/NA	Water	8260B	
400-236185-4	ROST4PZG-ROX-041423	Total/NA	Water	8260B	
400-236185-5	MW28-ROX-041423	Total/NA	Water	8260B	
MB 400-622388/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622388/1002	Lab Control Sample	Total/NA	Water	8260B	
400-236185-3 MS	MW5-ROX-041423	Total/NA	Water	8260B	
400-236185-3 MSD	MW5-ROX-041423	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-3	MW5-ROX-041423	Total/NA	Water	3520C	
400-236185-4	ROST4PZG-ROX-041423	Total/NA	Water	3520C	
400-236185-5	MW28-ROX-041423	Total/NA	Water	3520C	
MB 400-621132/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621132/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621132/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621132/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-621132/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 621302

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-3	MW5-ROX-041423	Total/NA	Water	8270D	621132
400-236185-4	ROST4PZG-ROX-041423	Total/NA	Water	8270D	621132
400-236185-5	MW28-ROX-041423	Total/NA	Water	8270D	621132
MB 400-621132/1-A	Method Blank	Total/NA	Water	8270D	621132
LCS 400-621132/2-A	Lab Control Sample	Total/NA	Water	8270D	621132
LCS 400-621132/4-A	Lab Control Sample	Total/NA	Water	8270D	621132
LCSD 400-621132/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	621132
LCSD 400-621132/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	621132

Analysis Batch: 621486

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-3	MW5-ROX-041423	Total/NA	Water	8270D LL	621132
400-236185-4	ROST4PZG-ROX-041423	Total/NA	Water	8270D LL	621132
400-236185-5	MW28-ROX-041423	Total/NA	Water	8270D LL	621132
MB 400-621132/1-A	Method Blank	Total/NA	Water	8270D LL	621132
LCS 400-621132/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621132
LCSD 400-621132/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	621132

Analysis Batch: 621702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-5	MW28-ROX-041423	Total/NA	Water	8270D LL	621132

GC Semi VOA

Prep Batch: 622064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-2	TB-ROX-041423-8011	Total/NA	Water	8011	
400-236185-3	MW5-ROX-041423	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 622064 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-4	ROST4PZG-ROX-041423	Total/NA	Water	8011	
400-236185-5	MW28-ROX-041423	Total/NA	Water	8011	
MB 400-622064/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622064/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622064/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236185-2	TB-ROX-041423-8011	Total/NA	Water	8011	622064
400-236185-3	MW5-ROX-041423	Total/NA	Water	8011	622064
400-236185-4	ROST4PZG-ROX-041423	Total/NA	Water	8011	622064
400-236185-5	MW28-ROX-041423	Total/NA	Water	8011	622064
MB 400-622064/1-A	Method Blank	Total/NA	Water	8011	622064
LCS 400-622064/2-A	Lab Control Sample	Total/NA	Water	8011	622064
LCSD 400-622064/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622064

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622388/4
Matrix: Water
Analysis Batch: 622388

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/26/23 16:18	1
Acrolein	ND		20	3.3	ug/L			04/26/23 16:18	1
Acrylonitrile	ND		10	2.8	ug/L			04/26/23 16:18	1
Benzene	ND		1.0	0.13	ug/L			04/26/23 16:18	1
Bromobenzene	ND		1.0	0.54	ug/L			04/26/23 16:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/26/23 16:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/26/23 16:18	1
Bromoform	ND		5.0	0.25	ug/L			04/26/23 16:18	1
Bromomethane	ND		1.0	0.98	ug/L			04/26/23 16:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/26/23 16:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/26/23 16:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/26/23 16:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/26/23 16:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/26/23 16:18	1
Chloroethane	ND		1.0	0.76	ug/L			04/26/23 16:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/26/23 16:18	1
Chloroform	ND		1.0	1.0	ug/L			04/26/23 16:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/26/23 16:18	1
Chloromethane	ND		1.0	0.32	ug/L			04/26/23 16:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/26/23 16:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/26/23 16:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/26/23 16:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/26/23 16:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/26/23 16:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/26/23 16:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/26/23 16:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/26/23 16:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 16:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 16:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 16:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/23 16:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/26/23 16:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/26/23 16:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/26/23 16:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/26/23 16:18	1
2-Hexanone	ND		25	1.4	ug/L			04/26/23 16:18	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/26/23 16:18	1
Methylene bromide	ND		5.0	0.22	ug/L			04/26/23 16:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/26/23 16:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/26/23 16:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/26/23 16:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/26/23 16:18	1
Naphthalene	ND		5.0	3.0	ug/L			04/26/23 16:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/26/23 16:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/23 16:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/26/23 16:18	1
o-Xylene	ND		5.0	0.60	ug/L			04/26/23 16:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/26/23 16:18	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622388/4
Matrix: Water
Analysis Batch: 622388

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/26/23 16:18	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/26/23 16:18	1
Styrene	ND		1.0	1.0	ug/L			04/26/23 16:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/26/23 16:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/26/23 16:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/26/23 16:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/26/23 16:18	1
Toluene	ND		1.0	0.41	ug/L			04/26/23 16:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/26/23 16:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/26/23 16:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/26/23 16:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/26/23 16:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/26/23 16:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/26/23 16:18	1
Trichloroethene	ND		1.0	0.15	ug/L			04/26/23 16:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/26/23 16:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/26/23 16:18	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/26/23 16:18	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/26/23 16:18	1
Vinyl acetate	ND		25	0.93	ug/L			04/26/23 16:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/26/23 16:18	1
Xylenes, Total	ND		10	1.6	ug/L			04/26/23 16:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*04/26/23 16:18*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/26/23 16:18*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/26/23 16:18*	*1*

Lab Sample ID: LCS 400-622388/1002
Matrix: Water
Analysis Batch: 622388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	167		ug/L		83	43 - 160
Acrolein	500	441		ug/L		88	38 - 160
Acrylonitrile	500	475		ug/L		95	64 - 142
Benzene	50.0	48.9		ug/L		98	70 - 130
Bromobenzene	50.0	50.3		ug/L		101	70 - 132
Bromochloromethane	50.0	50.7		ug/L		101	70 - 130
Bromodichloromethane	50.0	45.7		ug/L		91	67 - 133
Bromoform	50.0	47.1		ug/L		94	57 - 140
Bromomethane	50.0	59.8		ug/L		120	10 - 160
2-Butanone (MEK)	200	189		ug/L		94	61 - 145
Carbon disulfide	50.0	47.4		ug/L		95	61 - 137
Carbon tetrachloride	50.0	46.7		ug/L		93	61 - 137
Chlorobenzene	50.0	50.8		ug/L		102	70 - 130
Dibromochloromethane	50.0	49.1		ug/L		98	67 - 135
Chloroethane	50.0	47.7		ug/L		95	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622388/1002
Matrix: Water
Analysis Batch: 622388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	40.3		ug/L		81	10 - 160
Chloroform	50.0	45.6		ug/L		91	69 - 130
1-Chlorohexane	50.0	48.0		ug/L		96	69 - 130
Chloromethane	50.0	42.8		ug/L		86	58 - 137
cis-1,2-Dichloroethene	50.0	45.7		ug/L		91	68 - 130
cis-1,3-Dichloropropene	50.0	48.0		ug/L		96	69 - 132
1,2-Dichlorobenzene	50.0	50.3		ug/L		101	67 - 130
1,3-Dichlorobenzene	50.0	50.2		ug/L		100	70 - 130
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130
Dichlorodifluoromethane	50.0	48.6		ug/L		97	41 - 146
1,1-Dichloroethane	50.0	46.7		ug/L		93	70 - 130
1,2-Dichloroethane	50.0	43.8		ug/L		88	69 - 130
1,1-Dichloroethene	50.0	47.9		ug/L		96	63 - 134
1,2-Dichloropropane	50.0	48.6		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	49.8		ug/L		100	70 - 130
2,2-Dichloropropane	50.0	42.7		ug/L		85	52 - 135
1,1-Dichloropropene	50.0	47.0		ug/L		94	70 - 130
Ethylbenzene	50.0	49.4		ug/L		99	70 - 130
Ethyl methacrylate	50.0	48.8		ug/L		98	68 - 130
Hexachlorobutadiene	50.0	50.4		ug/L		101	53 - 140
2-Hexanone	200	181		ug/L		90	65 - 137
Isopropy benzene	50.0	49.6		ug/L		99	70 - 130
Methylene bromide	50.0	47.6		ug/L		95	70 - 130
Methylene Chloride	50.0	48.7		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	179		ug/L		89	69 - 138
Methyl tert-butyl ether	50.0	46.2		ug/L		92	66 - 130
m-Xylene & p-Xylene	50.0	49.1		ug/L		98	70 - 130
Naphthalene	50.0	47.6		ug/L		95	47 - 149
n-Butylbenzene	50.0	48.3		ug/L		97	67 - 130
N-Propylbenzene	50.0	50.8		ug/L		102	70 - 130
o-Chlorotoluene	50.0	47.8		ug/L		96	70 - 130
o-Xylene	50.0	49.4		ug/L		99	70 - 130
p-Chlorotoluene	50.0	48.6		ug/L		97	70 - 130
p-Isopropyltoluene	50.0	48.9		ug/L		98	65 - 130
sec-Butylbenzene	50.0	48.9		ug/L		98	66 - 130
Styrene	50.0	51.0		ug/L		102	70 - 130
tert-Butylbenzene	50.0	45.2		ug/L		90	64 - 139
1,1,1,2-Tetrachloroethane	50.0	49.5		ug/L		99	67 - 131
1,1,2,2-Tetrachloroethane	50.0	47.5		ug/L		95	70 - 131
Tetrachloroethene	50.0	51.0		ug/L		102	65 - 130
Toluene	50.0	48.9		ug/L		98	70 - 130
trans-1,2-Dichloroethene	50.0	48.3		ug/L		97	70 - 130
trans-1,3-Dichloropropene	50.0	47.7		ug/L		95	63 - 130
1,2,3-Trichlorobenzene	50.0	51.1		ug/L		102	60 - 138
1,2,4-Trichlorobenzene	50.0	50.2		ug/L		100	60 - 140
1,1,1-Trichloroethane	50.0	45.3		ug/L		91	68 - 130
1,1,2-Trichloroethane	50.0	49.8		ug/L		100	70 - 130
Trichloroethene	50.0	48.9		ug/L		98	70 - 130
Trichlorofluoromethane	50.0	50.9		ug/L		102	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622388/1002
Matrix: Water
Analysis Batch: 622388

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	46.5		ug/L		93	70 - 130
1,2,4-Trimethy benzene	50.0	49.4		ug/L		99	70 - 130
1,3,5-Trimethy benzene	50.0	48.4		ug/L		97	69 - 130
Vinyl acetate	100	102		ug/L		102	26 - 160
Vinyl chloride	50.0	56.6		ug/L		113	59 - 136
Xylenes, Total	100	98.5		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: 400-236185-3 MS
Matrix: Water
Analysis Batch: 622388

Client Sample ID: MW5-ROX-041423
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	F2	200	197		ug/L		99	43 - 150
Acrolein	ND	F2	500	466		ug/L		93	38 - 150
Acrylonitrile	ND		500	538		ug/L		108	62 - 149
Benzene	0.31	J	50.0	49.4		ug/L		98	56 - 142
Bromobenzene	ND		50.0	49.6		ug/L		99	59 - 136
Bromochloromethane	ND		50.0	52.3		ug/L		105	64 - 140
Bromodichloromethane	ND		50.0	46.6		ug/L		93	59 - 143
Bromoform	ND		50.0	47.5		ug/L		95	50 - 140
Bromomethane	ND		50.0	38.3		ug/L		77	10 - 150
2-Butanone (MEK)	ND		200	204		ug/L		102	55 - 150
Carbon disulfide	ND		50.0	49.2		ug/L		98	48 - 150
Carbon tetrachloride	ND		50.0	47.2		ug/L		94	55 - 145
Chlorobenzene	ND		50.0	50.2		ug/L		100	64 - 130
Dibromochloromethane	ND		50.0	48.9		ug/L		98	56 - 143
Chloroethane	ND		50.0	45.3		ug/L		91	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	46.5		ug/L		93	60 - 141
1-Chlorohexane	ND		50.0	47.6		ug/L		95	56 - 136
Chloromethane	ND		50.0	39.7		ug/L		79	49 - 148
cis-1,2-Dichloroethene	ND		50.0	46.6		ug/L		93	59 - 143
cis-1,3-Dichloropropene	ND		50.0	48.3		ug/L		97	57 - 140
1,2-Dichlorobenzene	ND		50.0	51.4		ug/L		103	52 - 137
1,3-Dichlorobenzene	ND		50.0	50.4		ug/L		101	54 - 135
1,4-Dichlorobenzene	ND		50.0	50.2		ug/L		100	53 - 135
Dichlorodifluoromethane	ND		50.0	46.4		ug/L		93	16 - 150
1,1-Dichloroethane	ND		50.0	46.6		ug/L		93	61 - 144
1,2-Dichloroethane	ND		50.0	45.0		ug/L		90	60 - 141
1,1-Dichloroethene	ND		50.0	48.2		ug/L		96	54 - 147
1,2-Dichloropropane	ND		50.0	49.6		ug/L		99	66 - 137
1,3-Dichloropropane	ND		50.0	49.7		ug/L		99	66 - 133
2,2-Dichloropropane	ND		50.0	42.4		ug/L		85	42 - 144

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-236185-3 MS
Matrix: Water
Analysis Batch: 622388

Client Sample ID: MW5-ROX-041423
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	ND		50.0	47.3		ug/L		95	65 - 136
Ethylbenzene	ND		50.0	48.7		ug/L		97	58 - 131
Ethyl methacrylate	ND		50.0	49.3		ug/L		99	64 - 130
Hexachlorobutadiene	ND	F2	50.0	53.9		ug/L		108	31 - 149
2-Hexanone	ND		200	183		ug/L		91	65 - 140
Isopropy benzene	ND		50.0	49.6		ug/L		99	56 - 133
Methylene bromide	ND		50.0	49.5		ug/L		99	63 - 138
Methylene Chloride	ND		50.0	49.9		ug/L		100	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	192		ug/L		96	63 - 146
Methyl tert-butyl ether	2.9		50.0	50.9		ug/L		96	59 - 137
m-Xylene & p-Xylene	ND		50.0	48.1		ug/L		96	57 - 130
Naphthalene	ND		50.0	50.7		ug/L		101	25 - 150
n-Butylbenzene	ND	F2	50.0	49.9		ug/L		100	41 - 142
N-Propylbenzene	ND		50.0	49.5		ug/L		99	51 - 138
o-Chlorotoluene	ND		50.0	47.4		ug/L		95	53 - 134
o-Xylene	ND		50.0	48.9		ug/L		98	61 - 130
p-Chlorotoluene	ND		50.0	47.3		ug/L		95	54 - 133
p-Isopropyltoluene	ND		50.0	49.8		ug/L		100	48 - 139
sec-Butylbenzene	ND		50.0	49.7		ug/L		99	50 - 138
Styrene	ND		50.0	51.0		ug/L		102	58 - 131
tert-Butylbenzene	1.0		50.0	47.2		ug/L		92	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	48.4		ug/L		97	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	49.0		ug/L		98	66 - 135
Tetrachloroethene	ND		50.0	48.9		ug/L		98	52 - 133
Toluene	ND		50.0	47.5		ug/L		95	65 - 130
trans-1,2-Dichloroethene	ND		50.0	48.8		ug/L		98	61 - 143
trans-1,3-Dichloropropene	ND		50.0	46.3		ug/L		93	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	53.0		ug/L		106	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	51.0		ug/L		102	39 - 148
1,1,1-Trichloroethane	ND		50.0	45.5		ug/L		91	57 - 142
1,1,2-Trichloroethane	ND		50.0	49.7		ug/L		99	66 - 131
Trichloroethene	0.24	J	50.0	48.9		ug/L		97	64 - 136
Trichlorofluoromethane	ND		50.0	50.6		ug/L		101	54 - 150
1,2,3-Trichloropropane	ND		50.0	47.6		ug/L		95	65 - 133
1,2,4-Trimethy benzene	ND		50.0	49.0		ug/L		98	50 - 139
1,3,5-Trimethy benzene	ND		50.0	48.3		ug/L		97	52 - 135
Vinyl acetate	ND		100	104		ug/L		104	26 - 150
Vinyl chloride	ND		50.0	53.9		ug/L		108	46 - 150
Xylenes, Total	ND		100	97.0		ug/L		97	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-236185-3 MSD
Matrix: Water
Analysis Batch: 622388

Client Sample ID: MW5-ROX-041423
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND	F2	200	131	F2	ug/L		65	43 - 150	41	30
Acrolein	ND	F2	500	329	F2	ug/L		66	38 - 150	34	31
Acrylonitrile	ND		500	445		ug/L		89	62 - 149	19	30
Benzene	0.31	J	50.0	44.2		ug/L		88	56 - 142	11	30
Bromobenzene	ND		50.0	42.0		ug/L		84	59 - 136	17	30
Bromochloromethane	ND		50.0	46.4		ug/L		93	64 - 140	12	30
Bromodichloromethane	ND		50.0	41.4		ug/L		83	59 - 143	12	30
Bromoform	ND		50.0	43.0		ug/L		86	50 - 140	10	30
Bromomethane	ND		50.0	54.2		ug/L		108	10 - 150	34	50
2-Butanone (MEK)	ND		200	171		ug/L		85	55 - 150	18	30
Carbon disulfide	ND		50.0	43.7		ug/L		87	48 - 150	12	30
Carbon tetrachloride	ND		50.0	42.2		ug/L		84	55 - 145	11	30
Chlorobenzene	ND		50.0	42.3		ug/L		85	64 - 130	17	30
Dibromochloromethane	ND		50.0	44.2		ug/L		88	56 - 143	10	30
Chloroethane	ND		50.0	41.9		ug/L		84	50 - 150	8	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	41.6		ug/L		83	60 - 141	11	30
1-Chlorohexane	ND		50.0	38.2		ug/L		76	56 - 136	22	30
Chloromethane	ND		50.0	40.0		ug/L		80	49 - 148	1	31
cis-1,2-Dichloroethene	ND		50.0	41.0		ug/L		82	59 - 143	13	30
cis-1,3-Dichloropropene	ND		50.0	41.7		ug/L		83	57 - 140	15	30
1,2-Dichlorobenzene	ND		50.0	40.2		ug/L		80	52 - 137	24	30
1,3-Dichlorobenzene	ND		50.0	39.7		ug/L		79	54 - 135	24	30
1,4-Dichlorobenzene	ND		50.0	40.2		ug/L		80	53 - 135	22	30
Dichlorodifluoromethane	ND		50.0	47.9		ug/L		96	16 - 150	3	31
1,1-Dichloroethane	ND		50.0	42.4		ug/L		85	61 - 144	10	30
1,2-Dichloroethane	ND		50.0	39.6		ug/L		79	60 - 141	13	30
1,1-Dichloroethene	ND		50.0	42.8		ug/L		86	54 - 147	12	30
1,2-Dichloropropane	ND		50.0	44.1		ug/L		88	66 - 137	12	30
1,3-Dichloropropane	ND		50.0	44.0		ug/L		88	66 - 133	12	30
2,2-Dichloropropane	ND		50.0	38.2		ug/L		76	42 - 144	10	31
1,1-Dichloropropene	ND		50.0	42.1		ug/L		84	65 - 136	12	30
Ethylbenzene	ND		50.0	40.4		ug/L		81	58 - 131	19	30
Ethyl methacrylate	ND		50.0	43.4		ug/L		87	64 - 130	13	30
Hexachlorobutadiene	ND	F2	50.0	36.9	F2	ug/L		74	31 - 149	37	36
2-Hexanone	ND		200	159		ug/L		80	65 - 140	14	30
Isopropy benzene	ND		50.0	39.2		ug/L		78	56 - 133	23	30
Methylene bromide	ND		50.0	43.0		ug/L		86	63 - 138	14	30
Methylene Chloride	ND		50.0	45.5		ug/L		91	60 - 146	9	32
4-Methyl-2-pentanone (MIBK)	ND		200	164		ug/L		82	63 - 146	15	30
Methyl tert-butyl ether	2.9		50.0	46.2		ug/L		87	59 - 137	10	30
m-Xylene & p-Xylene	ND		50.0	39.3		ug/L		79	57 - 130	20	30
Naphthalene	ND		50.0	41.4		ug/L		83	25 - 150	20	30
n-Butylbenzene	ND	F2	50.0	35.5	F2	ug/L		71	41 - 142	34	31
N-Propylbenzene	ND		50.0	40.7		ug/L		81	51 - 138	19	30
o-Chlorotoluene	ND		50.0	38.8		ug/L		78	53 - 134	20	30
o-Xylene	ND		50.0	39.9		ug/L		80	61 - 130	20	30
p-Chlorotoluene	ND		50.0	38.1		ug/L		76	54 - 133	22	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-236185-3 MSD
Matrix: Water
Analysis Batch: 622388

Client Sample ID: MW5-ROX-041423
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	37.9		ug/L		76	48 - 139	27	30
sec-Butylbenzene	ND		50.0	38.1		ug/L		76	50 - 138	26	30
Styrene	ND		50.0	41.0		ug/L		82	58 - 131	22	30
tert-Butylbenzene	1.0		50.0	37.0		ug/L		72	54 - 146	24	30
1,1,1,2-Tetrachloroethane	ND		50.0	43.0		ug/L		86	59 - 137	12	30
1,1,2,2-Tetrachloroethane	ND		50.0	43.9		ug/L		88	66 - 135	11	30
Tetrachloroethene	ND		50.0	42.2		ug/L		84	52 - 133	15	30
Toluene	ND		50.0	41.7		ug/L		83	65 - 130	13	30
trans-1,2-Dichloroethene	ND		50.0	43.9		ug/L		88	61 - 143	11	30
trans-1,3-Dichloropropene	ND		50.0	41.3		ug/L		83	53 - 133	11	30
1,2,3-Trichlorobenzene	ND		50.0	41.7		ug/L		83	43 - 145	24	30
1,2,4-Trichlorobenzene	ND		50.0	39.8		ug/L		80	39 - 148	25	30
1,1,1-Trichloroethane	ND		50.0	40.7		ug/L		81	57 - 142	11	30
1,1,2-Trichloroethane	ND		50.0	44.1		ug/L		88	66 - 131	12	30
Trichloroethene	0.24	J	50.0	43.4		ug/L		86	64 - 136	12	30
Trichlorofluoromethane	ND		50.0	45.4		ug/L		91	54 - 150	11	30
1,2,3-Trichloropropane	ND		50.0	43.3		ug/L		87	65 - 133	10	30
1,2,4-Trimethy benzene	ND		50.0	38.6		ug/L		77	50 - 139	24	30
1,3,5-Trimethy benzene	ND		50.0	38.8		ug/L		78	52 - 135	22	30
Vinyl acetate	ND		100	93.3		ug/L		93	26 - 150	11	33
Vinyl chloride	ND		50.0	54.1		ug/L		108	46 - 150	0	30
Xylenes, Total	ND		100	79.2		ug/L		79	59 - 130	20	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621132/1-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
Benzenethiol	ND		10	1.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
Benzoic acid	ND		30	7.3	ug/L		04/17/23 10:18	04/18/23 12:36	1
Benzyl alcohol	ND		10	2.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/17/23 10:18	04/18/23 12:36	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/17/23 10:18	04/18/23 12:36	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/17/23 10:18	04/18/23 12:36	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Chloroaniline	ND		10	3.4	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Chlorophenol	ND		10	2.2	ug/L		04/17/23 10:18	04/18/23 12:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621132/1-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Dibenzofuran	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Diethyl phthalate	ND		10	0.24	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/17/23 10:18	04/18/23 12:36	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
1,4-Dioxane	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/17/23 10:18	04/18/23 12:36	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
Hexachloroethane	ND		10	4.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
Indene	ND		10	1.0	ug/L		04/17/23 10:18	04/18/23 12:36	1
Isophorone	ND		10	0.14	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Methylphenol	ND		10	1.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Nitroaniline	ND		10	2.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
3-Nitroaniline	ND		10	1.8	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Nitroaniline	ND		10	1.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
Nitrobenzene	ND		10	0.13	ug/L		04/17/23 10:18	04/18/23 12:36	1
2-Nitrophenol	ND		10	5.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
4-Nitrophenol	ND		10	2.1	ug/L		04/17/23 10:18	04/18/23 12:36	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/17/23 10:18	04/18/23 12:36	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/17/23 10:18	04/18/23 12:36	1
Pentachlorophenol	ND		20	1.4	ug/L		04/17/23 10:18	04/18/23 12:36	1
Phenol	ND		10	2.6	ug/L		04/17/23 10:18	04/18/23 12:36	1
Pyridine	ND		10	3.2	ug/L		04/17/23 10:18	04/18/23 12:36	1
Quinoline	ND		10	4.5	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/17/23 10:18	04/18/23 12:36	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/17/23 10:18	04/18/23 12:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
2-Fluorophenol	*15*		*13 - 113*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
Phenol-d5	*54*		*17 - 127*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
Terphenyl-d14	*85*		*44 - 149*	*04/17/23 10:18*	*04/18/23 12:36*	*1*
2,4,6-Tribromophenol	*59*		*26 - 150*	*04/17/23 10:18*	*04/18/23 12:36*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	115		ug/L		96	21 - 120
Benzoic acid	554	345		ug/L		62	10 - 144
Benzyl alcohol	120	96.1		ug/L		80	28 - 120
Bis(2-chloroethoxy)methane	120	88.9		ug/L		74	47 - 120
Bis(2-chloroethyl)ether	120	84.1		ug/L		70	44 - 120
bis (2-chloroisopropyl) ether	120	90.2		ug/L		75	33 - 121
Bis(2-ethylhexyl) phthalate	120	106		ug/L		88	52 - 147
4-Bromophenyl phenyl ether	120	102		ug/L		85	54 - 122
Butyl benzyl phthalate	120	105		ug/L		87	54 - 133
4-Chloroaniline	120	108		ug/L		90	26 - 120
4-Chloro-3-methylphenol	120	104		ug/L		87	48 - 131
2-Chloronaphthalene	120	100		ug/L		84	52 - 121
2-Chlorophenol	120	88.0		ug/L		73	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	107		ug/L		89	56 - 122
3,3'-Dichlorobenzidine	160	206		ug/L		129	36 - 132
2,4-Dichlorophenol	120	104		ug/L		87	49 - 120
Diethyl phthalate	120	109		ug/L		91	50 - 137
2,4-Dimethylphenol	120	83.2		ug/L		69	48 - 120
Dimethyl phthalate	120	100		ug/L		84	57 - 124
Di-n-butyl phthalate	120	113		ug/L		94	58 - 126
4,6-Dinitro-ortho-cresol	240	210		ug/L		88	23 - 148
2,4-Dinitrophenol	240	255		ug/L		106	10 - 150
2,4-Dinitrotoluene	120	107		ug/L		89	54 - 142
2,6-Dinitrotoluene	120	102		ug/L		85	55 - 130
Di-n-octyl phthalate	120	109		ug/L		91	57 - 138
1,4-Dioxane	120	66.6		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	100		ug/L		83	45 - 124
Hexachlorobenzene	120	107		ug/L		89	52 - 129
Hexachlorocyclopentadiene	120	71.9		ug/L		60	10 - 134
Hexachloroethane	120	96.4		ug/L		80	20 - 120
Indene	120	94.2		ug/L		79	49 - 120
Isophorone	120	90.2		ug/L		75	48 - 120
2-Methylphenol	120	107		ug/L		89	46 - 124
3 & 4 Methylphenol	120	105		ug/L		87	45 - 120
2-Nitroaniline	120	106		ug/L		88	51 - 145
3-Nitroaniline	120	97.2		ug/L		81	37 - 127
4-Nitroaniline	120	125		ug/L		104	36 - 137
Nitrobenzene	120	92.1		ug/L		77	45 - 120
2-Nitrophenol	120	107		ug/L		89	40 - 124
4-Nitrophenol	240	281		ug/L		117	23 - 146
N-Nitrosodimethylamine	120	95.9		ug/L		80	29 - 137
N-Nitrosodi-n-propylamine	120	108		ug/L		90	45 - 120
N-Nitrosodiphenylamine	119	101		ug/L		85	54 - 120
Pentachlorophenol	240	190		ug/L		79	31 - 130
Phenol	120	90.2		ug/L		75	11 - 120
Pyridine	240	151		ug/L		63	16 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	106		ug/L		89	49 - 130		
2,4,5-Trichlorophenol			120	102		ug/L		85	51 - 136		
2,4,6-Trichlorophenol			120	98.5		ug/L		82	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*80*		*36 - 126*
Phenol-d5	*79*		*17 - 127*
Terphenyl-d14	*82*		*44 - 149*
2,4,6-Tribromophenol	*88*		*26 - 150*

Lab Sample ID: LCS 400-621132/4-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	6.32	J *-	ug/L		5	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*46 - 124*
2-Fluorophenol	*56*		*13 - 113*
Nitrobenzene-d5	*82*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*75*		*26 - 150*

Lab Sample ID: LCSD 400-621132/3-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	102		ug/L		85	21 - 120	12	30
Benzoic acid			554	161	*1	ug/L		29	10 - 144	73	30
Benzyl alcohol			120	92.8		ug/L		77	28 - 120	3	30
Bis(2-chloroethoxy)methane			120	87.9		ug/L		73	47 - 120	1	30
Bis(2-chloroethyl)ether			120	90.8		ug/L		76	44 - 120	8	30
bis (2-chloroisopropyl) ether			120	87.1		ug/L		73	33 - 121	3	30
Bis(2-ethylhexyl) phthalate			120	102		ug/L		85	52 - 147	4	30
4-Bromophenyl phenyl ether			120	98.9		ug/L		82	54 - 122	3	30
Butyl benzyl phthalate			120	99.9		ug/L		83	54 - 133	5	30
4-Chloroaniline			120	110		ug/L		91	26 - 120	2	30
4-Chloro-3-methylphenol			120	98.3		ug/L		82	48 - 131	6	30
2-Chloronaphthalene			120	98.9		ug/L		82	52 - 121	2	30
2-Chlorophenol			120	62.8	*1	ug/L		52	40 - 120	33	30
4-Chlorophenyl phenyl ether			120	101		ug/L		85	56 - 125	3	30
Dibenz[a,h]acridine			120	97.7		ug/L		82	31 - 150	3	30
Dibenzofuran			120	104		ug/L		87	56 - 122	2	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621132/3-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine			160	199		ug/L		124	36 - 132	3	30
2,4-Dichlorophenol			120	92.0		ug/L		77	49 - 120	12	30
Diethyl phthalate			120	107		ug/L		89	50 - 137	2	30
2,4-Dimethylphenol			120	80.9		ug/L		67	48 - 120	3	30
Dimethyl phthalate			120	99.1		ug/L		83	57 - 124	1	30
Di-n-butyl phthalate			120	110		ug/L		92	58 - 126	2	30
4,6-Dinitro-ortho-cresol			240	200		ug/L		84	23 - 148	5	30
2,4-Dinitrophenol			240	232		ug/L		97	10 - 150	9	30
2,4-Dinitrotoluene			120	105		ug/L		87	54 - 142	2	30
2,6-Dinitrotoluene			120	99.5		ug/L		83	55 - 130	3	30
Di-n-octyl phthalate			120	105		ug/L		88	57 - 138	3	30
1,4-Dioxane			120	64.8		ug/L		54	31 - 120	3	30
1,2-Diphenylhydrazine (as Azobenzene)			120	98.5		ug/L		82	45 - 124	2	30
Hexachlorobenzene			120	107		ug/L		89	52 - 129	1	30
Hexachlorocyclopentadiene			120	71.0		ug/L		59	10 - 134	1	30
Hexachloroethane			120	91.1		ug/L		76	20 - 120	6	30
Indene			120	91.1		ug/L		76	49 - 120	3	30
Isophorone			120	89.4		ug/L		74	48 - 120	1	30
2-Methylphenol			120	98.4		ug/L		82	46 - 124	8	30
3 & 4 Methylphenol			120	96.4		ug/L		80	45 - 120	8	30
2-Nitroaniline			120	103		ug/L		86	51 - 145	2	30
3-Nitroaniline			120	96.4		ug/L		80	37 - 127	1	30
4-Nitroaniline			120	121		ug/L		101	36 - 137	3	30
Nitrobenzene			120	90.2		ug/L		75	45 - 120	2	30
2-Nitrophenol			120	94.8		ug/L		79	40 - 124	12	30
4-Nitrophenol			240	261		ug/L		109	23 - 146	7	30
N-Nitrosodimethylamine			120	90.2		ug/L		75	29 - 137	6	30
N-Nitrosodi-n-propylamine			120	104		ug/L		87	45 - 120	4	30
N-Nitrosodiphenylamine			119	99.1		ug/L		83	54 - 120	2	30
Pentachlorophenol			240	180		ug/L		75	31 - 130	6	30
Phenol			120	71.8		ug/L		60	11 - 120	23	30
Pyridine			240	151		ug/L		63	16 - 120	0	30
Quinoline			120	105		ug/L		87	49 - 130	1	30
2,4,5-Trichlorophenol			120	96.5		ug/L		80	51 - 136	5	30
2,4,6-Trichlorophenol			120	93.0		ug/L		78	50 - 127	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*23*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*61*		*17 - 127*
Terphenyl-d14	*75*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621132/5-A
Matrix: Water
Analysis Batch: 621302

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	7.44	J *-	ug/L		6	10 - 120	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*89*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*76*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621132/1-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621132

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 17:02	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/17/23 10:18	04/19/23 17:02	1
Anthracene	ND		0.20	0.032	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/17/23 10:18	04/19/23 17:02	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/17/23 10:18	04/19/23 17:02	1
Chrysene	ND		0.20	0.074	ug/L		04/17/23 10:18	04/19/23 17:02	1
Dibenz(a,h)anthracene	0.153	J	0.20	0.050	ug/L		04/17/23 10:18	04/19/23 17:02	1
Fluoranthene	ND		0.20	0.068	ug/L		04/17/23 10:18	04/19/23 17:02	1
Fluorene	ND		0.20	0.11	ug/L		04/17/23 10:18	04/19/23 17:02	1
Indeno[1,2,3-cd]pyrene	0.0595	J	0.20	0.043	ug/L		04/17/23 10:18	04/19/23 17:02	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/17/23 10:18	04/19/23 17:02	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/17/23 10:18	04/19/23 17:02	1
Phenanthrene	ND		0.20	0.036	ug/L		04/17/23 10:18	04/19/23 17:02	1
Pyrene	ND		0.20	0.040	ug/L		04/17/23 10:18	04/19/23 17:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*15 - 122*	*04/17/23 10:18*	*04/19/23 17:02*	*1*
Nitrobenzene-d5	*100*		*19 - 130*	*04/17/23 10:18*	*04/19/23 17:02*	*1*
Terphenyl-d14	*118*		*33 - 138*	*04/17/23 10:18*	*04/19/23 17:02*	*1*

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			120	110		ug/L		92	41 - 120		
Acenaphthylene			120	117		ug/L		98	44 - 120		
Anthracene			120	122		ug/L		101	49 - 120		

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-621132/2-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[a]anthracene			120	126		ug/L		105	61 - 135		
Benzo[a]pyrene			120	120		ug/L		100	52 - 120		
Benzo[b]fluoranthene			120	109		ug/L		91	53 - 134		
Benzo[g,h,i]perylene			120	121		ug/L		101	47 - 133		
Benzo[k]fluoranthene			120	98.7		ug/L		82	57 - 134		
Chrysene			120	114		ug/L		95	55 - 122		
Dibenz(a,h)anthracene			120	133		ug/L		110	48 - 146		
Fluoranthene			120	112		ug/L		93	54 - 128		
Fluorene			120	128		ug/L		107	45 - 125		
Indeno[1,2,3-cd]pyrene			120	121		ug/L		101	43 - 142		
1-Methylnaphthalene			120	107		ug/L		89	41 - 120		
2-Methylnaphthalene			120	113		ug/L		94	32 - 124		
Phenanthrene			120	112		ug/L		94	48 - 120		
Pyrene			120	112		ug/L		93	48 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*15 - 122*
Nitrobenzene-d5	*84*		*19 - 130*
Terphenyl-d14	*92*		*33 - 138*

Lab Sample ID: LCSD 400-621132/3-A
Matrix: Water
Analysis Batch: 621486

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621132

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	98.3		ug/L		82	41 - 120	11	56
Acenaphthylene			120	110		ug/L		92	44 - 120	6	56
Anthracene			120	111		ug/L		93	49 - 120	9	51
Benzo[a]anthracene			120	114		ug/L		95	61 - 135	10	49
Benzo[a]pyrene			120	110		ug/L		92	52 - 120	8	50
Benzo[b]fluoranthene			120	101		ug/L		84	53 - 134	8	54
Benzo[g,h,i]perylene			120	107		ug/L		90	47 - 133	12	50
Benzo[k]fluoranthene			120	92.1		ug/L		77	57 - 134	7	52
Chrysene			120	103		ug/L		86	55 - 122	10	50
Dibenz(a,h)anthracene			120	120		ug/L		100	48 - 146	10	50
Fluoranthene			120	106		ug/L		88	54 - 128	6	52
Fluorene			120	117		ug/L		98	45 - 125	9	56
Indeno[1,2,3-cd]pyrene			120	108		ug/L		90	43 - 142	12	51
1-Methylnaphthalene			120	104		ug/L		86	41 - 120	3	55
2-Methylnaphthalene			120	107		ug/L		89	32 - 124	6	57
Phenanthrene			120	101		ug/L		84	48 - 120	11	56
Pyrene			120	102		ug/L		85	48 - 132	9	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*15 - 122*
Nitrobenzene-d5	*85*		*19 - 130*
Terphenyl-d14	*82*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622064/1-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/24/23 13:58	04/24/23 16:23	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/24/23 16:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*04/24/23 13:58*	*04/24/23 16:23*	*1*

Lab Sample ID: LCS 400-622064/2-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622064

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.0901		ug/L		90	60 - 140		
1,2-D bromoethane			0.101	0.102		ug/L		101	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*51 - 149*

Lab Sample ID: LCSD 400-622064/3-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622064

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.0906		ug/L		90	60 - 140	1	30
1,2-D bromoethane			0.101	0.110		ug/L		109	60 - 140	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/14/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPG/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60697537 – 3.2.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):	SAMPLER NAME(S) (Print):	LAB USE ONLY
Melissa Remiger, Mary Massa, Brett Howell	J. Mayer, T. Jenkins	

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-236185 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041423-8260	4/14/2023	0000	Water	2					2	X			
	TB-ROX-041423-8011	4/14/2023	0000	Water	2					2		X		
	MW5-ROX-041423	4/14/2023	1000	Water	6			2		8	X	X	X	X
	ROST4PZG-ROX-041423	4/14/2023	1115	Water	6			2		8	X	X	X	X
	MW28-ROX-041423	4/14/2023	1255	Water	6			2		8	X	X	X	X

4-14-23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
JOE MAYER	FEDEX: 5564 3932 9770	4/14/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		4/15/23	0750

Version: 13Oct22

CUSTODY SEALS: 1599710, 1599711

0.1°C IR11

Page 47 of 49

4/28/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-236185-1

Login Number: 236185
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236185-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236316-1-Rev. 1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/30/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041823-8260	MW22-ROX-041823
TB-ROX-041823-8011	ROST4PZE-ROX-041823
MW2-ROX-041823-EB	ROST4PZE-ROX-041823-DUP
MW2-ROX-041823	--

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 2-butanone (MEK) and diethyl phthalate were detected in equipment blank MW2-ROX-041823-EB. LCS/LCSD recoveries and SVOC LCS/LCSD RPDs for benzenethiol were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in equipment blank MW2-ROX-041823-EB. The continuing calibration verification (CCV) for 1,4-dioxane and vinyl chloride were outside evaluation criteria, biased low. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on June 08, 2023, to include missing initial calibration verifications (ICVs) for method 8270D.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MW2-ROX-041823-EB	VOCs	2-Butanone (MEK)	3.2 µg/L
MW2-ROX-041823-EB	SVOCs	Diethyl phthalate	0.5 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW2-ROX-041823	VOCs	2-Butanone (MEK)	-	**U**
MW2-ROX-041823	SVOCs	Diethyl 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
LCS/LCSD 400-621528/5-A/6-A	SVOCs	Benzenethiol	**4/3**	**37**	10-120/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-041823	SVOCs	Benzenethiol	**UJ**
MW22-ROX-041823	SVOCs	Benzenethiol	**UJ**
ROST4PZE-ROX-041823	SVOCs	Benzenethiol	**UJ**
ROST4PZE-ROX-041823-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW2-ROX-041823-EB	PAHs	2-Fluorobiphenyl	**149**	15-122
MW2-ROX-041823-EB	PAHs	Nitrobenzene-d_5	**136**	19-130
MW2-ROX-041823-EB	PAHs	Terphenyl-d_{14}	**178**	33-138

Equipment blanks and method blanks are quality control samples and do not require qualification. No qualification of data was required.

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
ROST4PZE-ROX-041823	ROST4PZE-ROX-041823-DUP

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

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

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

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for vinyl chloride and 1,4-dioxane were outside evaluation criteria, biased low. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST4PZE-ROX-041823	VOCs	Bromomethane	**UJ**
ROST4PZE-ROX-041823-DUP	VOCs	Bromomethane	**UJ**
MW22-ROX-041823	VOCs	Bromomethane	**UJ**
MW2-ROX-041823	VOCs	Bromomethane	**UJ**
ROST4PZE-ROX-041823	VOCs	Vinyl chloride	**UJ**
ROST4PZE-ROX-041823-DUP	VOCs	Vinyl chloride	**UJ**
MW22-ROX-041823	VOCs	Vinyl chloride	**UJ**
MW2-ROX-041823	VOCs	Vinyl chloride	**UJ**
ROST4PZE-ROX-041823	SVOCs	1,4-Dioxane	**UJ**
ROST4PZE-ROX-041823-DUP	SVOCs	1,4-Dioxane	**UJ**
MW22-ROX-041823	SVOCs	1,4-Dioxane	**UJ**
MW2-ROX-041823	SVOCs	1,4-Dioxane	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 5/12/2023 1:11:10 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236316-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

Job Notes

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Authorization



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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 9
Definitions 32
Surrogate Summary 33
Method Summary 35
Chronicle 36
QC Association 40
QC Sample Results 42
Chain of Custody 51
Receipt Checklists 52
Certification Summary 53

Job ID: 400-236316-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236316-1

Receipt
The samples were received on 4/19/2023 9:16 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.1°C, 1.2°C and 5.0°C

GC/MS VOA
Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-613356 was outside method criteria for the following analyte(s): Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW2-ROX-041823 (400-236316-4) and MW22-ROX-041823 (400-236316-5). Elevated reporting limits (RLs) are provided.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-622650 recovered outside acceptance criteria, low biased, for Vinyl chloride. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041823-8260 (400-236316-1), MW2-ROX-041823-EB (400-236316-3), MW2-ROX-041823 (400-236316-4), MW22-ROX-041823 (400-236316-5), ROST4PZE-ROX-041823 (400-236316-6) and ROST4PZE-ROX-041823-DUP (400-236316-7). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The following sample MW2-ROX-041823-EB (400-236316-3) contained 2-Butanone (MEK) between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621820 recovered above the upper control limit for Benzenethiol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 400-621820/6).

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621528 and analytical batch 400-621820 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-621528 and analytical batch 400-621820 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621820 recovered outside acceptance criteria, low biased, for 1,4-Dioxane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D_LL: Surrogate recovery for the following sample was outside the upper control limit: MW2-ROX-041823-EB (400-236316-3). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Job ID: 400-236316-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622312 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236316-1	TB-ROX-041823-8260	Water	04/18/23 12:00	04/19/23 09:16
400-236316-2	TB-ROX-041823-8011	Water	04/18/23 12:00	04/19/23 09:16
400-236316-3	MW2-ROX-041823-EB	Water	04/18/23 08:20	04/19/23 09:16
400-236316-4	MW2-ROX-041823	Water	04/18/23 09:20	04/19/23 09:16
400-236316-5	MW22-ROX-041823	Water	04/18/23 10:30	04/19/23 09:16
400-236316-6	ROST4PZE-ROX-041823	Water	04/18/23 11:45	04/19/23 09:16
400-236316-7	ROST4PZE-ROX-041823-DUP	Water	04/18/23 11:45	04/19/23 09:16

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: TB-ROX-041823-8260 — Lab Sample ID: 400-236316-1

No Detections.

Client Sample ID: TB-ROX-041823-8011 — Lab Sample ID: 400-236316-2

No Detections.

Client Sample ID: MW2-ROX-041823-EB — Lab Sample ID: 400-236316-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	3.2	J	25	2.6	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.50	J	9.5	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: MW2-ROX-041823 — Lab Sample ID: 400-236316-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	62		50	20	ug/L	2		8260B	Total/NA
Benzene	0.84	J	2.0	0.26	ug/L	2		8260B	Total/NA
Bromodichloromethane	1.0	J	2.0	1.0	ug/L	2		8260B	Total/NA
2-Butanone (MEK)	9.8	J U	50	5.2	ug/L	2		8260B	Total/NA
Ethylbenzene	400		2.0	1.0	ug/L	2		8260B	Total/NA
Isopropy benzene	23		2.0	1.1	ug/L	2		8260B	Total/NA
m-Xylene & p-Xylene	230		10	1.3	ug/L	2		8260B	Total/NA
Naphthalene	50		10	6.0	ug/L	2		8260B	Total/NA
n-Butylbenzene	2.4		2.0	1.5	ug/L	2		8260B	Total/NA
N-Propylbenzene	27		2.0	1.4	ug/L	2		8260B	Total/NA
o-Xylene	20		10	1.2	ug/L	2		8260B	Total/NA
p-Isopropyltoluene	1.6	J	2.0	1.4	ug/L	2		8260B	Total/NA
tert-Butylbenzene	16		2.0	1.3	ug/L	2		8260B	Total/NA
Toluene	3.1		2.0	0.82	ug/L	2		8260B	Total/NA
1,2,4-Trimethy benzene	86		2.0	1.6	ug/L	2		8260B	Total/NA
1,3,5-Trimethy benzene	27		2.0	1.1	ug/L	2		8260B	Total/NA
Xylenes, Total	250		20	3.2	ug/L	2		8260B	Total/NA
1-Methylnaphthalene	9.5		0.20	0.072	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	26		0.20	0.059	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.38	J U	9.8	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: MW22-ROX-041823 — Lab Sample ID: 400-236316-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	48	J	50	20	ug/L	2		8260B	Total/NA
Benzene	23		2.0	0.26	ug/L	2		8260B	Total/NA
2-Butanone (MEK)	5.2	J	50	5.2	ug/L	2		8260B	Total/NA
Ethylbenzene	82		2.0	1.0	ug/L	2		8260B	Total/NA
Isopropy benzene	20		2.0	1.1	ug/L	2		8260B	Total/NA
m-Xylene & p-Xylene	320		10	1.3	ug/L	2		8260B	Total/NA
Naphthalene	67		10	6.0	ug/L	2		8260B	Total/NA
n-Butylbenzene	3.3		2.0	1.5	ug/L	2		8260B	Total/NA
N-Propylbenzene	36		2.0	1.4	ug/L	2		8260B	Total/NA
o-Xylene	11		10	1.2	ug/L	2		8260B	Total/NA
p-Isopropyltoluene	2.0		2.0	1.4	ug/L	2		8260B	Total/NA
sec-Butylbenzene	1.8	J	2.0	1.4	ug/L	2		8260B	Total/NA
tert-Butylbenzene	4.5		2.0	1.3	ug/L	2		8260B	Total/NA
Toluene	18		2.0	0.82	ug/L	2		8260B	Total/NA
1,2,4-Trimethy benzene	180		2.0	1.6	ug/L	2		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW22-ROX-041823 (Continued) — Lab Sample ID: 400-236316-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethy benzene	56		2.0	1.1	ug/L	2		8260B	Total/NA
Xylenes, Total	330		20	3.2	ug/L	2		8260B	Total/NA
1-Methylnaphthalene	10		0.20	0.072	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	11		0.20	0.059	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.69	J	9.8	0.23	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	4.3	J	9.8	3.4	ug/L	1		8270D	Total/NA

Client Sample ID: ROST4PZE-ROX-041823 — Lab Sample ID: 400-236316-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.6		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	9.1		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	2.4		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	31		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	26		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	1.7		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	5.8		5.0	0.60	ug/L	1		8260B	Total/NA
Toluene	0.90	J	1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	61		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	1.3		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	37		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	1.6		0.20	0.031	ug/L	1		8270D LL	Total/NA
Chrysene	0.16	J	0.20	0.073	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.22		0.20	0.067	ug/L	1		8270D LL	Total/NA
Fluorene	1.7		0.20	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	56		0.20	0.073	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	21		0.20	0.059	ug/L	1		8270D LL	Total/NA
Phenanthrene	4.7		0.20	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.42		0.20	0.039	ug/L	1		8270D LL	Total/NA
Dibenzofuran	1.4	J	9.8	0.17	ug/L	1		8270D	Total/NA

Client Sample ID: ROST4PZE-ROX-041823-DUP — Lab Sample ID: 400-236316-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.8		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	10		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	2.6		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	32		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	27		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	1.9		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	6.2		5.0	0.60	ug/L	1		8260B	Total/NA
Toluene	1.1		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	57		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	1.4		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	38		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	1.3		0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.38		0.19	0.043	ug/L	1		8270D LL	Total/NA
Fluorene	1.4		0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	55		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	20		0.19	0.058	ug/L	1		8270D LL	Total/NA
Phenanthrene	3.9		0.19	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.29		0.19	0.039	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: TB-ROX-041823-8260
Date Collected: 04/18/23 12:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/23 13:52	1
Acrolein	ND		20	3.3	ug/L			04/28/23 13:52	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/23 13:52	1
Benzene	ND		1.0	0.13	ug/L			04/28/23 13:52	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/23 13:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/23 13:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/23 13:52	1
Bromoform	ND		5.0	0.25	ug/L			04/28/23 13:52	1
Bromomethane	ND		1.0	0.98	ug/L			04/28/23 13:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/28/23 13:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/23 13:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/23 13:52	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/23 13:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/23 13:52	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/23 13:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/23 13:52	1
Chloroform	ND		1.0	1.0	ug/L			04/28/23 13:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/23 13:52	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/23 13:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/23 13:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/23 13:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/23 13:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/23 13:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/23 13:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/23 13:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/23 13:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/23 13:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 13:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 13:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 13:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 13:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/23 13:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/28/23 13:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/23 13:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/23 13:52	1
2-Hexanone	ND		25	1.4	ug/L			04/28/23 13:52	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/28/23 13:52	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/23 13:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/23 13:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/23 13:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/23 13:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/28/23 13:52	1
Naphthalene	ND		5.0	3.0	ug/L			04/28/23 13:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/28/23 13:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/28/23 13:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/23 13:52	1
o-Xylene	ND		5.0	0.60	ug/L			04/28/23 13:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/23 13:52	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/28/23 13:52	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: TB-ROX-041823-8260
Date Collected: 04/18/23 12:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/28/23 13:52	1
Styrene	ND		1.0	1.0	ug/L			04/28/23 13:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/23 13:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/23 13:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/23 13:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/23 13:52	1
Toluene	ND		1.0	0.41	ug/L			04/28/23 13:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 13:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/23 13:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/23 13:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/23 13:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/23 13:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/23 13:52	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/23 13:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/23 13:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/23 13:52	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/28/23 13:52	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/28/23 13:52	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/23 13:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/28/23 13:52	1
Xylenes, Total	ND		10	1.6	ug/L			04/28/23 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/28/23 13:52*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/28/23 13:52*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/28/23 13:52*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: TB-ROX-041823-8011
Date Collected: 04/18/23 12:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/25/23 15:00	04/26/23 11:33	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/25/23 15:00	04/26/23 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*04/25/23 15:00*	*04/26/23 11:33*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW2-ROX-041823-EB
Date Collected: 04/18/23 08:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/23 08:57	1
Acrolein	ND		20	3.3	ug/L			04/28/23 08:57	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/23 08:57	1
Benzene	ND		1.0	0.13	ug/L			04/28/23 08:57	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/23 08:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/23 08:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/23 08:57	1
Bromoform	ND		5.0	0.25	ug/L			04/28/23 08:57	1
Bromomethane	ND		1.0	0.98	ug/L			04/28/23 08:57	1
2-Butanone (MEK)	**3.2**	**J**	25	2.6	ug/L			04/28/23 08:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/23 08:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/23 08:57	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/23 08:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/23 08:57	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/23 08:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/23 08:57	1
Chloroform	ND		1.0	1.0	ug/L			04/28/23 08:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/23 08:57	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/23 08:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/23 08:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/23 08:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/23 08:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/23 08:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/23 08:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/23 08:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/23 08:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/23 08:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 08:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 08:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 08:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 08:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/23 08:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/28/23 08:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/23 08:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/23 08:57	1
2-Hexanone	ND		25	1.4	ug/L			04/28/23 08:57	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/28/23 08:57	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/23 08:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/23 08:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/23 08:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/23 08:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/28/23 08:57	1
Naphthalene	ND		5.0	3.0	ug/L			04/28/23 08:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/28/23 08:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/28/23 08:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/23 08:57	1
o-Xylene	ND		5.0	0.60	ug/L			04/28/23 08:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/23 08:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/28/23 08:57	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW2-ROX-041823-EB

Date Collected: 04/18/23 08:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/28/23 08:57	1
Styrene	ND		1.0	1.0	ug/L			04/28/23 08:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/23 08:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/23 08:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/23 08:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/23 08:57	1
Toluene	ND		1.0	0.41	ug/L			04/28/23 08:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 08:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/23 08:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/23 08:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/23 08:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/23 08:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/23 08:57	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/23 08:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/23 08:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/23 08:57	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/28/23 08:57	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/28/23 08:57	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/23 08:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/28/23 08:57	1
Xylenes, Total	ND		10	1.6	ug/L			04/28/23 08:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/28/23 08:57*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/28/23 08:57*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/28/23 08:57*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 18:45	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/19/23 14:40	04/21/23 18:45	1
Anthracene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 18:45	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/23 14:40	04/21/23 18:45	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/19/23 14:40	04/21/23 18:45	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/19/23 14:40	04/21/23 18:45	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/19/23 14:40	04/21/23 18:45	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/19/23 14:40	04/21/23 18:45	1
Chrysene	ND		0.19	0.071	ug/L		04/19/23 14:40	04/21/23 18:45	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/23 14:40	04/21/23 18:45	1
Fluoranthene	ND		0.19	0.065	ug/L		04/19/23 14:40	04/21/23 18:45	1
Fluorene	ND		0.19	0.10	ug/L		04/19/23 14:40	04/21/23 18:45	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/19/23 14:40	04/21/23 18:45	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/19/23 14:40	04/21/23 18:45	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/19/23 14:40	04/21/23 18:45	1
Phenanthrene	ND		0.19	0.034	ug/L		04/19/23 14:40	04/21/23 18:45	1
Pyrene	ND		0.19	0.038	ug/L		04/19/23 14:40	04/21/23 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*149*	*S1+*	*15 - 122*	*04/19/23 14:40*	*04/21/23 18:45*	*1*
Nitrobenzene-d5	*136*	*S1+*	*19 - 130*	*04/19/23 14:40*	*04/21/23 18:45*	*1*

Client Sample ID: MW2-ROX-041823-EB
Date Collected: 04/18/23 08:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*178*	*S1+*	*33 - 138*	*04/19/23 14:40*	*04/21/23 18:45*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/19/23 14:40	04/21/23 23:36	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		04/19/23 14:40	04/21/23 23:36	1
Benzoic acid	ND		29	7.0	ug/L		04/19/23 14:40	04/21/23 23:36	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/19/23 14:40	04/21/23 23:36	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/19/23 14:40	04/21/23 23:36	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/19/23 14:40	04/21/23 23:36	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/19/23 14:40	04/21/23 23:36	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/19/23 14:40	04/21/23 23:36	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/19/23 14:40	04/21/23 23:36	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/19/23 14:40	04/21/23 23:36	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/19/23 14:40	04/21/23 23:36	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/19/23 14:40	04/21/23 23:36	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/19/23 14:40	04/21/23 23:36	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/19/23 14:40	04/21/23 23:36	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/19/23 14:40	04/21/23 23:36	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/19/23 14:40	04/21/23 23:36	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/19/23 14:40	04/21/23 23:36	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/19/23 14:40	04/21/23 23:36	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/19/23 14:40	04/21/23 23:36	1
Diethyl phthalate	**0.50**	**J**	9.5	0.23	ug/L		04/19/23 14:40	04/21/23 23:36	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/19/23 14:40	04/21/23 23:36	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/19/23 14:40	04/21/23 23:36	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/19/23 14:40	04/21/23 23:36	1
4,6-Dinitro-ortho-cresol	ND	*-	9.5	1.5	ug/L		04/19/23 14:40	04/21/23 23:36	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/19/23 14:40	04/21/23 23:36	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/19/23 14:40	04/21/23 23:36	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/19/23 14:40	04/21/23 23:36	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/19/23 14:40	04/21/23 23:36	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/19/23 14:40	04/21/23 23:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/19/23 14:40	04/21/23 23:36	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/19/23 14:40	04/21/23 23:36	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/19/23 14:40	04/21/23 23:36	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/19/23 14:40	04/21/23 23:36	1
Indene	ND		9.5	0.95	ug/L		04/19/23 14:40	04/21/23 23:36	1
Isophorone	ND		9.5	0.13	ug/L		04/19/23 14:40	04/21/23 23:36	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/19/23 14:40	04/21/23 23:36	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/19/23 14:40	04/21/23 23:36	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/19/23 14:40	04/21/23 23:36	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/19/23 14:40	04/21/23 23:36	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/19/23 14:40	04/21/23 23:36	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/19/23 14:40	04/21/23 23:36	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/19/23 14:40	04/21/23 23:36	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/19/23 14:40	04/21/23 23:36	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/19/23 14:40	04/21/23 23:36	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW2-ROX-041823-EB

Date Collected: 04/18/23 08:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-3

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/19/23 14:40	04/21/23 23:36	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/19/23 14:40	04/21/23 23:36	1
Pentachlorophenol	ND		19	1.3	ug/L		04/19/23 14:40	04/21/23 23:36	1
Phenol	ND		9.5	2.5	ug/L		04/19/23 14:40	04/21/23 23:36	1
Pyridine	ND		9.5	3.1	ug/L		04/19/23 14:40	04/21/23 23:36	1
Quinoline	ND		9.5	4.3	ug/L		04/19/23 14:40	04/21/23 23:36	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/19/23 14:40	04/21/23 23:36	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/19/23 14:40	04/21/23 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/19/23 14:40*	*04/21/23 23:36*	*1*
2-Fluorophenol	*66*		*13 - 113*	*04/19/23 14:40*	*04/21/23 23:36*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*04/19/23 14:40*	*04/21/23 23:36*	*1*
Phenol-d5	*84*		*17 - 127*	*04/19/23 14:40*	*04/21/23 23:36*	*1*
Terphenyl-d14	*85*		*44 - 149*	*04/19/23 14:40*	*04/21/23 23:36*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*04/19/23 14:40*	*04/21/23 23:36*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/25/23 15:00	04/26/23 11:54	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/25/23 15:00	04/26/23 11:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*04/25/23 15:00*	*04/26/23 11:54*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW2-ROX-041823
Date Collected: 04/18/23 09:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**62**		50	20	ug/L			04/28/23 17:40	2
Acrolein	ND		40	6.6	ug/L			04/28/23 17:40	2
Acrylonitrile	ND		20	5.6	ug/L			04/28/23 17:40	2
Benzene	**0.84**	**J**	2.0	0.26	ug/L			04/28/23 17:40	2
Bromobenzene	ND		2.0	1.1	ug/L			04/28/23 17:40	2
Bromochloromethane	ND		2.0	0.42	ug/L			04/28/23 17:40	2
Bromodichloromethane	**1.0**	**J**	2.0	1.0	ug/L			04/28/23 17:40	2
Bromoform	ND		10	0.50	ug/L			04/28/23 17:40	2
Bromomethane	ND	UJ	2.0	2.0	ug/L			04/28/23 17:40	2
2-Butanone (MEK)	**9.8**	**J** U	50	5.2	ug/L			04/28/23 17:40	2
Carbon disulfide	ND		2.0	1.0	ug/L			04/28/23 17:40	2
Carbon tetrachloride	ND		2.0	0.38	ug/L			04/28/23 17:40	2
Chlorobenzene	ND		2.0	0.30	ug/L			04/28/23 17:40	2
Dibromochloromethane	ND		2.0	0.48	ug/L			04/28/23 17:40	2
Chloroethane	ND		2.0	1.5	ug/L			04/28/23 17:40	2
2-Chloroethyl vinyl ether	ND		10	4.0	ug/L			04/28/23 17:40	2
Chloroform	ND		2.0	2.0	ug/L			04/28/23 17:40	2
1-Chlorohexane	ND		2.0	0.64	ug/L			04/28/23 17:40	2
Chloromethane	ND		2.0	0.64	ug/L			04/28/23 17:40	2
cis-1,2-Dichloroethene	ND		2.0	0.40	ug/L			04/28/23 17:40	2
cis-1,3-Dichloropropene	ND		10	1.0	ug/L			04/28/23 17:40	2
1,2-Dichlorobenzene	ND		2.0	1.0	ug/L			04/28/23 17:40	2
1,3-Dichlorobenzene	ND		2.0	1.1	ug/L			04/28/23 17:40	2
1,4-Dichlorobenzene	ND		2.0	1.3	ug/L			04/28/23 17:40	2
Dichlorodifluoromethane	ND		2.0	1.7	ug/L			04/28/23 17:40	2
1,1-Dichloroethane	ND		2.0	1.0	ug/L			04/28/23 17:40	2
1,2-Dichloroethane	ND		2.0	0.38	ug/L			04/28/23 17:40	2
1,1-Dichloroethene	ND		2.0	1.0	ug/L			04/28/23 17:40	2
1,2-Dichloropropane	ND		2.0	1.0	ug/L			04/28/23 17:40	2
1,3-Dichloropropane	ND		2.0	1.0	ug/L			04/28/23 17:40	2
2,2-Dichloropropane	ND		2.0	1.0	ug/L			04/28/23 17:40	2
1,1-Dichloropropene	ND		2.0	1.0	ug/L			04/28/23 17:40	2
Ethylbenzene	**400**		2.0	1.0	ug/L			04/28/23 17:40	2
Ethyl methacrylate	ND		2.0	1.2	ug/L			04/28/23 17:40	2
Hexachlorobutadiene	ND		10	1.8	ug/L			04/28/23 17:40	2
2-Hexanone	ND		50	2.8	ug/L			04/28/23 17:40	2
Isopropylbenzene	**23**		2.0	1.1	ug/L			04/28/23 17:40	2
Methylene bromide	ND		10	0.44	ug/L			04/28/23 17:40	2
Methylene Chloride	ND		10	6.0	ug/L			04/28/23 17:40	2
4-Methyl-2-pentanone (MIBK)	ND		50	3.6	ug/L			04/28/23 17:40	2
Methyl tert-butyl ether	ND		2.0	0.44	ug/L			04/28/23 17:40	2
m-Xylene & p-Xylene	**230**		10	1.3	ug/L			04/28/23 17:40	2
Naphthalene	**50**		10	6.0	ug/L			04/28/23 17:40	2
n-Butylbenzene	**2.4**		2.0	1.5	ug/L			04/28/23 17:40	2
N-Propylbenzene	**27**		2.0	1.4	ug/L			04/28/23 17:40	2
o-Chlorotoluene	ND		2.0	1.1	ug/L			04/28/23 17:40	2
o-Xylene	**20**		10	1.2	ug/L			04/28/23 17:40	2
p-Chlorotoluene	ND		2.0	1.1	ug/L			04/28/23 17:40	2
p-Isopropyltoluene	**1.6**	**J**	2.0	1.4	ug/L			04/28/23 17:40	2

Client Sample ID: MW2-ROX-041823
Date Collected: 04/18/23 09:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		2.0	1.4	ug/L			04/28/23 17:40	2
Styrene	ND		2.0	2.0	ug/L			04/28/23 17:40	2
tert-Butylbenzene	**16**		2.0	1.3	ug/L			04/28/23 17:40	2
1,1,1,2-Tetrachloroethane	ND		2.0	0.32	ug/L			04/28/23 17:40	2
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/L			04/28/23 17:40	2
Tetrachloroethene	ND		2.0	1.8	ug/L			04/28/23 17:40	2
Toluene	**3.1**		2.0	0.82	ug/L			04/28/23 17:40	2
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/L			04/28/23 17:40	2
trans-1,3-Dichloropropene	ND		10	0.40	ug/L			04/28/23 17:40	2
1,2,3-Trichlorobenzene	ND		2.0	1.8	ug/L			04/28/23 17:40	2
1,2,4-Trichlorobenzene	ND		2.0	1.6	ug/L			04/28/23 17:40	2
1,1,1-Trichloroethane	ND		2.0	0.36	ug/L			04/28/23 17:40	2
1,1,2-Trichloroethane	ND		10	0.42	ug/L			04/28/23 17:40	2
Trichloroethene	ND		2.0	0.30	ug/L			04/28/23 17:40	2
Trichlorofluoromethane	ND		2.0	1.0	ug/L			04/28/23 17:40	2
1,2,3-Trichloropropane	ND		10	1.7	ug/L			04/28/23 17:40	2
1,2,4-Trimethylbenzene	**86**		2.0	1.6	ug/L			04/28/23 17:40	2
1,3,5-Trimethylbenzene	**27**		2.0	1.1	ug/L			04/28/23 17:40	2
Vinyl acetate	ND		50	1.9	ug/L			04/28/23 17:40	2
Vinyl chloride	ND	UJ	2.0	1.0	ug/L			04/28/23 17:40	2
Xylenes, Total	**250**		20	3.2	ug/L			04/28/23 17:40	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 119*		*04/28/23 17:40*	*2*
Dibromofluoromethane	*98*		*75 - 126*		*04/28/23 17:40*	*2*
Toluene-d8 (Surr)	*93*		*64 - 132*		*04/28/23 17:40*	*2*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/19/23 14:40	04/24/23 17:34	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/19/23 14:40	04/24/23 17:34	1
Anthracene	ND		0.20	0.031	ug/L		04/19/23 14:40	04/24/23 17:34	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/19/23 14:40	04/24/23 17:34	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/19/23 14:40	04/24/23 17:34	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/19/23 14:40	04/24/23 17:34	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/19/23 14:40	04/24/23 17:34	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/19/23 14:40	04/24/23 17:34	1
Chrysene	ND		0.20	0.072	ug/L		04/19/23 14:40	04/24/23 17:34	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/19/23 14:40	04/24/23 17:34	1
Fluoranthene	ND		0.20	0.066	ug/L		04/19/23 14:40	04/24/23 17:34	1
Fluorene	ND		0.20	0.11	ug/L		04/19/23 14:40	04/24/23 17:34	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/19/23 14:40	04/24/23 17:34	1
1-Methylnaphthalene	**9.5**		0.20	0.072	ug/L		04/19/23 14:40	04/24/23 17:34	1
2-Methylnaphthalene	**26**		0.20	0.059	ug/L		04/19/23 14:40	04/24/23 17:34	1
Phenanthrene	ND		0.20	0.035	ug/L		04/19/23 14:40	04/24/23 17:34	1
Pyrene	ND		0.20	0.039	ug/L		04/19/23 14:40	04/24/23 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*04/19/23 14:40*	*04/24/23 17:34*	*1*
Nitrobenzene-d5	*112*		*19 - 130*	*04/19/23 14:40*	*04/24/23 17:34*	*1*

Client Sample ID: MW2-ROX-041823
Date Collected: 04/18/23 09:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*127*		*33 - 138*	*04/19/23 14:40*	*04/24/23 17:34*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/19/23 14:40	04/21/23 23:56	1
Benzenethiol	ND	*- *1 UJ	9.8	1.7	ug/L		04/19/23 14:40	04/21/23 23:56	1
Benzoic acid	ND		29	7.1	ug/L		04/19/23 14:40	04/21/23 23:56	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/19/23 14:40	04/21/23 23:56	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/19/23 14:40	04/21/23 23:56	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/19/23 14:40	04/21/23 23:56	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/19/23 14:40	04/21/23 23:56	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/19/23 14:40	04/21/23 23:56	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/19/23 14:40	04/21/23 23:56	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/19/23 14:40	04/21/23 23:56	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/19/23 14:40	04/21/23 23:56	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/19/23 14:40	04/21/23 23:56	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/19/23 14:40	04/21/23 23:56	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/19/23 14:40	04/21/23 23:56	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/19/23 14:40	04/21/23 23:56	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/19/23 14:40	04/21/23 23:56	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/19/23 14:40	04/21/23 23:56	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		04/19/23 14:40	04/21/23 23:56	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/19/23 14:40	04/21/23 23:56	1
Diethyl phthalate	**0.38**	**J** U	9.8	0.23	ug/L		04/19/23 14:40	04/21/23 23:56	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/19/23 14:40	04/21/23 23:56	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/21/23 23:56	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/19/23 14:40	04/21/23 23:56	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/19/23 14:40	04/21/23 23:56	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/21/23 23:56	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/21/23 23:56	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/21/23 23:56	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/21/23 23:56	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/19/23 14:40	04/21/23 23:56	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/19/23 14:40	04/21/23 23:56	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/19/23 14:40	04/21/23 23:56	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		04/19/23 14:40	04/21/23 23:56	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/19/23 14:40	04/21/23 23:56	1
Indene	ND		9.8	0.98	ug/L		04/19/23 14:40	04/21/23 23:56	1
Isophorone	ND		9.8	0.14	ug/L		04/19/23 14:40	04/21/23 23:56	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/19/23 14:40	04/21/23 23:56	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/19/23 14:40	04/21/23 23:56	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/19/23 14:40	04/21/23 23:56	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/19/23 14:40	04/21/23 23:56	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/19/23 14:40	04/21/23 23:56	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/19/23 14:40	04/21/23 23:56	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/19/23 14:40	04/21/23 23:56	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/19/23 14:40	04/21/23 23:56	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/19/23 14:40	04/21/23 23:56	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW2-ROX-041823
Date Collected: 04/18/23 09:20
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/19/23 14:40	04/21/23 23:56	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/19/23 14:40	04/21/23 23:56	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/21/23 23:56	1
Phenol	ND		9.8	2.5	ug/L		04/19/23 14:40	04/21/23 23:56	1
Pyridine	ND		9.8	3.1	ug/L		04/19/23 14:40	04/21/23 23:56	1
Quinoline	ND		9.8	4.4	ug/L		04/19/23 14:40	04/21/23 23:56	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/19/23 14:40	04/21/23 23:56	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/19/23 14:40	04/21/23 23:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*04/19/23 14:40*	*04/21/23 23:56*	*1*
2-Fluorophenol	*52*		*13 - 113*	*04/19/23 14:40*	*04/21/23 23:56*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*04/19/23 14:40*	*04/21/23 23:56*	*1*
Phenol-d5	*78*		*17 - 127*	*04/19/23 14:40*	*04/21/23 23:56*	*1*
Terphenyl-d14	*80*		*44 - 149*	*04/19/23 14:40*	*04/21/23 23:56*	*1*
2,4,6-Tribromophenol	*97*		*26 - 150*	*04/19/23 14:40*	*04/21/23 23:56*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/25/23 15:00	04/26/23 12:14	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/25/23 15:00	04/26/23 12:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*116*		*51 - 149*	*04/25/23 15:00*	*04/26/23 12:14*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW22-ROX-041823
Date Collected: 04/18/23 10:30
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**48**	**J**	50	20	ug/L			04/28/23 17:17	2
Acrolein	ND		40	6.6	ug/L			04/28/23 17:17	2
Acrylonitrile	ND		20	5.6	ug/L			04/28/23 17:17	2
Benzene	**23**		2.0	0.26	ug/L			04/28/23 17:17	2
Bromobenzene	ND		2.0	1.1	ug/L			04/28/23 17:17	2
Bromochloromethane	ND		2.0	0.42	ug/L			04/28/23 17:17	2
Bromodichloromethane	ND		2.0	1.0	ug/L			04/28/23 17:17	2
Bromoform	ND		10	0.50	ug/L			04/28/23 17:17	2
Bromomethane	ND	UJ	2.0	2.0	ug/L			04/28/23 17:17	2
2-Butanone (MEK)	**5.2**	**J**	50	5.2	ug/L			04/28/23 17:17	2
Carbon disulfide	ND		2.0	1.0	ug/L			04/28/23 17:17	2
Carbon tetrachloride	ND		2.0	0.38	ug/L			04/28/23 17:17	2
Chlorobenzene	ND		2.0	0.30	ug/L			04/28/23 17:17	2
Dibromochloromethane	ND		2.0	0.48	ug/L			04/28/23 17:17	2
Chloroethane	ND		2.0	1.5	ug/L			04/28/23 17:17	2
2-Chloroethyl vinyl ether	ND		10	4.0	ug/L			04/28/23 17:17	2
Chloroform	ND		2.0	2.0	ug/L			04/28/23 17:17	2
1-Chlorohexane	ND		2.0	0.64	ug/L			04/28/23 17:17	2
Chloromethane	ND		2.0	0.64	ug/L			04/28/23 17:17	2
cis-1,2-Dichloroethene	ND		2.0	0.40	ug/L			04/28/23 17:17	2
cis-1,3-Dichloropropene	ND		10	1.0	ug/L			04/28/23 17:17	2
1,2-Dichlorobenzene	ND		2.0	1.0	ug/L			04/28/23 17:17	2
1,3-Dichlorobenzene	ND		2.0	1.1	ug/L			04/28/23 17:17	2
1,4-Dichlorobenzene	ND		2.0	1.3	ug/L			04/28/23 17:17	2
Dichlorodifluoromethane	ND		2.0	1.7	ug/L			04/28/23 17:17	2
1,1-Dichloroethane	ND		2.0	1.0	ug/L			04/28/23 17:17	2
1,2-Dichloroethane	ND		2.0	0.38	ug/L			04/28/23 17:17	2
1,1-Dichloroethene	ND		2.0	1.0	ug/L			04/28/23 17:17	2
1,2-Dichloropropane	ND		2.0	1.0	ug/L			04/28/23 17:17	2
1,3-Dichloropropane	ND		2.0	1.0	ug/L			04/28/23 17:17	2
2,2-Dichloropropane	ND		2.0	1.0	ug/L			04/28/23 17:17	2
1,1-Dichloropropene	ND		2.0	1.0	ug/L			04/28/23 17:17	2
Ethylbenzene	**82**		2.0	1.0	ug/L			04/28/23 17:17	2
Ethyl methacrylate	ND		2.0	1.2	ug/L			04/28/23 17:17	2
Hexachlorobutadiene	ND		10	1.8	ug/L			04/28/23 17:17	2
2-Hexanone	ND		50	2.8	ug/L			04/28/23 17:17	2
Isopropylbenzene	**20**		2.0	1.1	ug/L			04/28/23 17:17	2
Methylene bromide	ND		10	0.44	ug/L			04/28/23 17:17	2
Methylene Chloride	ND		10	6.0	ug/L			04/28/23 17:17	2
4-Methyl-2-pentanone (MIBK)	ND		50	3.6	ug/L			04/28/23 17:17	2
Methyl tert-butyl ether	ND		2.0	0.44	ug/L			04/28/23 17:17	2
m-Xylene & p-Xylene	**320**		10	1.3	ug/L			04/28/23 17:17	2
Naphthalene	**67**		10	6.0	ug/L			04/28/23 17:17	2
n-Butylbenzene	**3.3**		2.0	1.5	ug/L			04/28/23 17:17	2
N-Propylbenzene	**36**		2.0	1.4	ug/L			04/28/23 17:17	2
o-Chlorotoluene	ND		2.0	1.1	ug/L			04/28/23 17:17	2
o-Xylene	**11**		10	1.2	ug/L			04/28/23 17:17	2
p-Chlorotoluene	ND		2.0	1.1	ug/L			04/28/23 17:17	2
p-Isopropyltoluene	**2.0**		2.0	1.4	ug/L			04/28/23 17:17	2

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW22-ROX-041823
Date Collected: 04/18/23 10:30
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**1.8**	**J**	2.0	1.4	ug/L			04/28/23 17:17	2
Styrene	ND		2.0	2.0	ug/L			04/28/23 17:17	2
tert-Butylbenzene	**4.5**		2.0	1.3	ug/L			04/28/23 17:17	2
1,1,1,2-Tetrachloroethane	ND		2.0	0.32	ug/L			04/28/23 17:17	2
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/L			04/28/23 17:17	2
Tetrachloroethene	ND		2.0	1.8	ug/L			04/28/23 17:17	2
Toluene	**18**		2.0	0.82	ug/L			04/28/23 17:17	2
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/L			04/28/23 17:17	2
trans-1,3-Dichloropropene	ND		10	0.40	ug/L			04/28/23 17:17	2
1,2,3-Trichlorobenzene	ND		2.0	1.8	ug/L			04/28/23 17:17	2
1,2,4-Trichlorobenzene	ND		2.0	1.6	ug/L			04/28/23 17:17	2
1,1,1-Trichloroethane	ND		2.0	0.36	ug/L			04/28/23 17:17	2
1,1,2-Trichloroethane	ND		10	0.42	ug/L			04/28/23 17:17	2
Trichloroethene	ND		2.0	0.30	ug/L			04/28/23 17:17	2
Trichlorofluoromethane	ND		2.0	1.0	ug/L			04/28/23 17:17	2
1,2,3-Trichloropropane	ND		10	1.7	ug/L			04/28/23 17:17	2
1,2,4-Trimethylbenzene	**180**		2.0	1.6	ug/L			04/28/23 17:17	2
1,3,5-Trimethylbenzene	**56**		2.0	1.1	ug/L			04/28/23 17:17	2
Vinyl acetate	ND		50	1.9	ug/L			04/28/23 17:17	2
Vinyl chloride	ND	UJ	2.0	1.0	ug/L			04/28/23 17:17	2
Xylenes, Total	**330**		20	3.2	ug/L			04/28/23 17:17	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/28/23 17:17*	*2*
Dibromofluoromethane	*99*		*75 - 126*		*04/28/23 17:17*	*2*
Toluene-d8 (Surr)	*93*		*64 - 132*		*04/28/23 17:17*	*2*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/19/23 14:40	04/24/23 17:51	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/19/23 14:40	04/24/23 17:51	1
Anthracene	ND		0.20	0.031	ug/L		04/19/23 14:40	04/24/23 17:51	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/19/23 14:40	04/24/23 17:51	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/19/23 14:40	04/24/23 17:51	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/19/23 14:40	04/24/23 17:51	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/19/23 14:40	04/24/23 17:51	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/19/23 14:40	04/24/23 17:51	1
Chrysene	ND		0.20	0.072	ug/L		04/19/23 14:40	04/24/23 17:51	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/19/23 14:40	04/24/23 17:51	1
Fluoranthene	ND		0.20	0.066	ug/L		04/19/23 14:40	04/24/23 17:51	1
Fluorene	ND		0.20	0.11	ug/L		04/19/23 14:40	04/24/23 17:51	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/19/23 14:40	04/24/23 17:51	1
1-Methylnaphthalene	**10**		0.20	0.072	ug/L		04/19/23 14:40	04/24/23 17:51	1
2-Methylnaphthalene	**11**		0.20	0.059	ug/L		04/19/23 14:40	04/24/23 17:51	1
Phenanthrene	ND		0.20	0.035	ug/L		04/19/23 14:40	04/24/23 17:51	1
Pyrene	ND		0.20	0.039	ug/L		04/19/23 14:40	04/24/23 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*116*		*15 - 122*	*04/19/23 14:40*	*04/24/23 17:51*	*1*
Nitrobenzene-d5	*130*		*19 - 130*	*04/19/23 14:40*	*04/24/23 17:51*	*1*

Client Sample ID: MW22-ROX-041823
Date Collected: 04/18/23 10:30
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*134*		*33 - 138*	*04/19/23 14:40*	*04/24/23 17:51*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/19/23 14:40	04/22/23 00:17	1
Benzenethiol	ND	*- *1 UJ	9.8	1.7	ug/L		04/19/23 14:40	04/22/23 00:17	1
Benzoic acid	ND		29	7.1	ug/L		04/19/23 14:40	04/22/23 00:17	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/19/23 14:40	04/22/23 00:17	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/19/23 14:40	04/22/23 00:17	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/19/23 14:40	04/22/23 00:17	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/19/23 14:40	04/22/23 00:17	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/19/23 14:40	04/22/23 00:17	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/19/23 14:40	04/22/23 00:17	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/19/23 14:40	04/22/23 00:17	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/19/23 14:40	04/22/23 00:17	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/19/23 14:40	04/22/23 00:17	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/19/23 14:40	04/22/23 00:17	1
2-Chlorophenol	ND		9.8	2.1	ug/L		04/19/23 14:40	04/22/23 00:17	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/19/23 14:40	04/22/23 00:17	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:17	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:17	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		04/19/23 14:40	04/22/23 00:17	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/19/23 14:40	04/22/23 00:17	1
Diethyl phthalate	**0.69**	**J**	9.8	0.23	ug/L		04/19/23 14:40	04/22/23 00:17	1
2,4-Dimethylphenol	**4.3**	**J**	9.8	3.4	ug/L		04/19/23 14:40	04/22/23 00:17	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:17	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/19/23 14:40	04/22/23 00:17	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/19/23 14:40	04/22/23 00:17	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/22/23 00:17	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/22/23 00:17	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/22/23 00:17	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:17	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:17	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:17	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:17	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		04/19/23 14:40	04/22/23 00:17	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/19/23 14:40	04/22/23 00:17	1
Indene	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:17	1
Isophorone	ND		9.8	0.14	ug/L		04/19/23 14:40	04/22/23 00:17	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/19/23 14:40	04/22/23 00:17	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/19/23 14:40	04/22/23 00:17	1
2-Nitroaniline	ND		9.8	2.1	ug/L		04/19/23 14:40	04/22/23 00:17	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/19/23 14:40	04/22/23 00:17	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/19/23 14:40	04/22/23 00:17	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/19/23 14:40	04/22/23 00:17	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/19/23 14:40	04/22/23 00:17	1
4-Nitrophenol	ND		9.8	2.0	ug/L		04/19/23 14:40	04/22/23 00:17	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 00:17	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: MW22-ROX-041823
Date Collected: 04/18/23 10:30
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/19/23 14:40	04/22/23 00:17	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/19/23 14:40	04/22/23 00:17	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/22/23 00:17	1
Phenol	ND		9.8	2.5	ug/L		04/19/23 14:40	04/22/23 00:17	1
Pyridine	ND		9.8	3.1	ug/L		04/19/23 14:40	04/22/23 00:17	1
Quinoline	ND		9.8	4.4	ug/L		04/19/23 14:40	04/22/23 00:17	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/19/23 14:40	04/22/23 00:17	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 00:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*04/19/23 14:40*	*04/22/23 00:17*	*1*
2-Fluorophenol	*66*		*13 - 113*	*04/19/23 14:40*	*04/22/23 00:17*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/19/23 14:40*	*04/22/23 00:17*	*1*
Phenol-d5	*82*		*17 - 127*	*04/19/23 14:40*	*04/22/23 00:17*	*1*
Terphenyl-d14	*80*		*44 - 149*	*04/19/23 14:40*	*04/22/23 00:17*	*1*
2,4,6-Tribromophenol	*104*		*26 - 150*	*04/19/23 14:40*	*04/22/23 00:17*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/25/23 15:00	04/26/23 12:35	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/25/23 15:00	04/26/23 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*51 - 149*	*04/25/23 15:00*	*04/26/23 12:35*	*1*

Client Sample ID: ROST4PZE-ROX-041823
Date Collected: 04/18/23 11:45
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/23 14:38	1
Acrolein	ND		20	3.3	ug/L			04/28/23 14:38	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/23 14:38	1
Benzene	**1.6**		1.0	0.13	ug/L			04/28/23 14:38	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/23 14:38	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/23 14:38	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/23 14:38	1
Bromoform	ND		5.0	0.25	ug/L			04/28/23 14:38	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/28/23 14:38	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/28/23 14:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/23 14:38	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/23 14:38	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/23 14:38	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/23 14:38	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/23 14:38	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/23 14:38	1
Chloroform	ND		1.0	1.0	ug/L			04/28/23 14:38	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/23 14:38	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/23 14:38	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/23 14:38	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/23 14:38	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/23 14:38	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/23 14:38	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/23 14:38	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/23 14:38	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/23 14:38	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/23 14:38	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 14:38	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 14:38	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 14:38	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 14:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/23 14:38	1
Ethylbenzene	**9.1**		1.0	0.50	ug/L			04/28/23 14:38	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/23 14:38	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/23 14:38	1
2-Hexanone	ND		25	1.4	ug/L			04/28/23 14:38	1
Isopropylbenzene	**2.4**		1.0	0.53	ug/L			04/28/23 14:38	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/23 14:38	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/23 14:38	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/23 14:38	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/23 14:38	1
m-Xylene & p-Xylene	**31**		5.0	0.63	ug/L			04/28/23 14:38	1
Naphthalene	**26**		5.0	3.0	ug/L			04/28/23 14:38	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/28/23 14:38	1
N-Propylbenzene	**1.7**		1.0	0.69	ug/L			04/28/23 14:38	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/23 14:38	1
o-Xylene	**5.8**		5.0	0.60	ug/L			04/28/23 14:38	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/23 14:38	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/28/23 14:38	1

Client Sample ID: ROST4PZE-ROX-041823
Date Collected: 04/18/23 11:45
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/28/23 14:38	1
Styrene	ND		1.0	1.0	ug/L			04/28/23 14:38	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/23 14:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/23 14:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/23 14:38	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/23 14:38	1
Toluene	**0.90**	**J**	1.0	0.41	ug/L			04/28/23 14:38	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 14:38	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/23 14:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/23 14:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/23 14:38	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/23 14:38	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/23 14:38	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/23 14:38	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/23 14:38	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/23 14:38	1
1,2,4-Trimethylbenzene	**61**		1.0	0.82	ug/L			04/28/23 14:38	1
1,3,5-Trimethylbenzene	**1.3**		1.0	0.56	ug/L			04/28/23 14:38	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/23 14:38	1
Vinyl chloride	ND	UJ	1.0	0.50	ug/L			04/28/23 14:38	1
Xylenes, Total	**37**		10	1.6	ug/L			04/28/23 14:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 119*		*04/28/23 14:38*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/28/23 14:38*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/28/23 14:38*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**1.6**		0.20	0.031	ug/L		04/19/23 14:40	04/24/23 18:08	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/19/23 14:40	04/24/23 18:08	1
Anthracene	ND		0.20	0.031	ug/L		04/19/23 14:40	04/24/23 18:08	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/19/23 14:40	04/24/23 18:08	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/19/23 14:40	04/24/23 18:08	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/19/23 14:40	04/24/23 18:08	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/19/23 14:40	04/24/23 18:08	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/19/23 14:40	04/24/23 18:08	1
Chrysene	**0.16**	**J**	0.20	0.073	ug/L		04/19/23 14:40	04/24/23 18:08	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/19/23 14:40	04/24/23 18:08	1
Fluoranthene	**0.22**		0.20	0.067	ug/L		04/19/23 14:40	04/24/23 18:08	1
Fluorene	**1.7**		0.20	0.11	ug/L		04/19/23 14:40	04/24/23 18:08	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/19/23 14:40	04/24/23 18:08	1
1-Methylnaphthalene	**56**		0.20	0.073	ug/L		04/19/23 14:40	04/24/23 18:08	1
2-Methylnaphthalene	**21**		0.20	0.059	ug/L		04/19/23 14:40	04/24/23 18:08	1
Phenanthrene	**4.7**		0.20	0.035	ug/L		04/19/23 14:40	04/24/23 18:08	1
Pyrene	**0.42**		0.20	0.039	ug/L		04/19/23 14:40	04/24/23 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*04/19/23 14:40*	*04/24/23 18:08*	*1*
Nitrobenzene-d5	*95*		*19 - 130*	*04/19/23 14:40*	*04/24/23 18:08*	*1*

Client Sample ID: ROST4PZE-ROX-041823
Date Collected: 04/18/23 11:45
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*130*		*33 - 138*	*04/19/23 14:40*	*04/24/23 18:08*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/19/23 14:40	04/22/23 00:37	1
Benzenethiol	ND	*- *1 UJ	9.8	1.7	ug/L		04/19/23 14:40	04/22/23 00:37	1
Benzoic acid	ND		30	7.2	ug/L		04/19/23 14:40	04/22/23 00:37	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/19/23 14:40	04/22/23 00:37	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/19/23 14:40	04/22/23 00:37	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		04/19/23 14:40	04/22/23 00:37	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/19/23 14:40	04/22/23 00:37	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/19/23 14:40	04/22/23 00:37	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/19/23 14:40	04/22/23 00:37	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/19/23 14:40	04/22/23 00:37	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/19/23 14:40	04/22/23 00:37	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/19/23 14:40	04/22/23 00:37	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/19/23 14:40	04/22/23 00:37	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/19/23 14:40	04/22/23 00:37	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/19/23 14:40	04/22/23 00:37	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:37	1
Dibenzofuran	**1.4**	**J**	9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:37	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		04/19/23 14:40	04/22/23 00:37	1
2,4-Dichlorophenol	ND		9.8	3.0	ug/L		04/19/23 14:40	04/22/23 00:37	1
Diethyl phthalate	ND		9.8	0.24	ug/L		04/19/23 14:40	04/22/23 00:37	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 00:37	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:37	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		04/19/23 14:40	04/22/23 00:37	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/19/23 14:40	04/22/23 00:37	1
2,4-Dinitrophenol	ND		30	3.3	ug/L		04/19/23 14:40	04/22/23 00:37	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/22/23 00:37	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/22/23 00:37	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:37	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:37	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:37	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 00:37	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/19/23 14:40	04/22/23 00:37	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/19/23 14:40	04/22/23 00:37	1
Indene	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 00:37	1
Isophorone	ND		9.8	0.14	ug/L		04/19/23 14:40	04/22/23 00:37	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/19/23 14:40	04/22/23 00:37	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/19/23 14:40	04/22/23 00:37	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/19/23 14:40	04/22/23 00:37	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/19/23 14:40	04/22/23 00:37	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/19/23 14:40	04/22/23 00:37	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/19/23 14:40	04/22/23 00:37	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/19/23 14:40	04/22/23 00:37	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/19/23 14:40	04/22/23 00:37	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 00:37	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: ROST4PZE-ROX-041823

Lab Sample ID: 400-236316-6

Date Collected: 04/18/23 11:45

Matrix: Water

Date Received: 04/19/23 09:16

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/19/23 14:40	04/22/23 00:37	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/19/23 14:40	04/22/23 00:37	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/22/23 00:37	1
Phenol	ND		9.8	2.6	ug/L		04/19/23 14:40	04/22/23 00:37	1
Pyridine	ND		9.8	3.1	ug/L		04/19/23 14:40	04/22/23 00:37	1
Quinoline	ND		9.8	4.4	ug/L		04/19/23 14:40	04/22/23 00:37	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/19/23 14:40	04/22/23 00:37	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*04/19/23 14:40*	*04/22/23 00:37*	*1*
2-Fluorophenol	*54*		*13 - 113*	*04/19/23 14:40*	*04/22/23 00:37*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*04/19/23 14:40*	*04/22/23 00:37*	*1*
Phenol-d5	*72*		*17 - 127*	*04/19/23 14:40*	*04/22/23 00:37*	*1*
Terphenyl-d14	*82*		*44 - 149*	*04/19/23 14:40*	*04/22/23 00:37*	*1*
2,4,6-Tribromophenol	*99*		*26 - 150*	*04/19/23 14:40*	*04/22/23 00:37*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/25/23 15:00	04/26/23 12:56	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/25/23 15:00	04/26/23 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*51 - 149*	*04/25/23 15:00*	*04/26/23 12:56*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: ROST4PZE-ROX-041823-DUP
Date Collected: 04/18/23 11:45
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/23 15:01	1
Acrolein	ND		20	3.3	ug/L			04/28/23 15:01	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/23 15:01	1
Benzene	**1.8**		1.0	0.13	ug/L			04/28/23 15:01	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/23 15:01	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/23 15:01	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/23 15:01	1
Bromoform	ND		5.0	0.25	ug/L			04/28/23 15:01	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			04/28/23 15:01	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/28/23 15:01	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/23 15:01	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/23 15:01	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/23 15:01	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/23 15:01	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/23 15:01	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/23 15:01	1
Chloroform	ND		1.0	1.0	ug/L			04/28/23 15:01	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/23 15:01	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/23 15:01	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/23 15:01	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/23 15:01	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/23 15:01	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/23 15:01	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/23 15:01	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/23 15:01	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/23 15:01	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/23 15:01	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 15:01	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 15:01	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 15:01	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 15:01	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/23 15:01	1
Ethylbenzene	**10**		1.0	0.50	ug/L			04/28/23 15:01	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/23 15:01	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/23 15:01	1
2-Hexanone	ND		25	1.4	ug/L			04/28/23 15:01	1
Isopropylbenzene	**2.6**		1.0	0.53	ug/L			04/28/23 15:01	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/23 15:01	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/23 15:01	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/23 15:01	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/23 15:01	1
m-Xylene & p-Xylene	**32**		5.0	0.63	ug/L			04/28/23 15:01	1
Naphthalene	**27**		5.0	3.0	ug/L			04/28/23 15:01	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/28/23 15:01	1
N-Propylbenzene	**1.9**		1.0	0.69	ug/L			04/28/23 15:01	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/23 15:01	1
o-Xylene	**6.2**		5.0	0.60	ug/L			04/28/23 15:01	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/23 15:01	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/28/23 15:01	1

Client Sample ID: ROST4PZE-ROX-041823-DUP

Lab Sample ID: 400-236316-7

Date Collected: 04/18/23 11:45

Matrix: Water

Date Received: 04/19/23 09:16

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/28/23 15:01	1
Styrene	ND		1.0	1.0	ug/L			04/28/23 15:01	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/23 15:01	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/23 15:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/23 15:01	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/23 15:01	1
Toluene	**1.1**		1.0	0.41	ug/L			04/28/23 15:01	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 15:01	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/23 15:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/23 15:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/23 15:01	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/23 15:01	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/23 15:01	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/23 15:01	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/23 15:01	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/23 15:01	1
1,2,4-Trimethylbenzene	**57**		1.0	0.82	ug/L			04/28/23 15:01	1
1,3,5-Trimethylbenzene	**1.4**		1.0	0.56	ug/L			04/28/23 15:01	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/23 15:01	1
Vinyl chloride	ND	UJ	1.0	0.50	ug/L			04/28/23 15:01	1
Xylenes, Total	**38**		10	1.6	ug/L			04/28/23 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 119*		*04/28/23 15:01*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/28/23 15:01*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*04/28/23 15:01*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**1.3**		0.19	0.031	ug/L		04/19/23 14:40	04/24/23 18:26	1
Acenaphthylene	**0.38**		0.19	0.043	ug/L		04/19/23 14:40	04/24/23 18:26	1
Anthracene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/24/23 18:26	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/23 14:40	04/24/23 18:26	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/19/23 14:40	04/24/23 18:26	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/19/23 14:40	04/24/23 18:26	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/19/23 14:40	04/24/23 18:26	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/19/23 14:40	04/24/23 18:26	1
Chrysene	ND		0.19	0.071	ug/L		04/19/23 14:40	04/24/23 18:26	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/23 14:40	04/24/23 18:26	1
Fluoranthene	ND		0.19	0.066	ug/L		04/19/23 14:40	04/24/23 18:26	1
Fluorene	**1.4**		0.19	0.11	ug/L		04/19/23 14:40	04/24/23 18:26	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/19/23 14:40	04/24/23 18:26	1
1-Methylnaphthalene	**55**		0.19	0.071	ug/L		04/19/23 14:40	04/24/23 18:26	1
2-Methylnaphthalene	**20**		0.19	0.058	ug/L		04/19/23 14:40	04/24/23 18:26	1
Phenanthrene	**3.9**		0.19	0.035	ug/L		04/19/23 14:40	04/24/23 18:26	1
Pyrene	**0.29**		0.19	0.039	ug/L		04/19/23 14:40	04/24/23 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*15 - 122*	*04/19/23 14:40*	*04/24/23 18:26*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/19/23 14:40*	*04/24/23 18:26*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: ROST4PZE-ROX-041823-DUP
Date Collected: 04/18/23 11:45
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236316-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*127*		*33 - 138*	*04/19/23 14:40*	*04/24/23 18:26*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/19/23 14:40	04/22/23 00:58	1
Benzenethiol	ND	*- *1 UJ	9.7	1.6	ug/L		04/19/23 14:40	04/22/23 00:58	1
Benzoic acid	ND		29	7.0	ug/L		04/19/23 14:40	04/22/23 00:58	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 00:58	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		04/19/23 14:40	04/22/23 00:58	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/19/23 14:40	04/22/23 00:58	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		04/19/23 14:40	04/22/23 00:58	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/19/23 14:40	04/22/23 00:58	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/19/23 14:40	04/22/23 00:58	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/19/23 14:40	04/22/23 00:58	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/19/23 14:40	04/22/23 00:58	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/19/23 14:40	04/22/23 00:58	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/19/23 14:40	04/22/23 00:58	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 00:58	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 00:58	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 00:58	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/19/23 14:40	04/22/23 00:58	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/19/23 14:40	04/22/23 00:58	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/19/23 14:40	04/22/23 00:58	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 00:58	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 00:58	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/19/23 14:40	04/22/23 00:58	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		04/19/23 14:40	04/22/23 00:58	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/22/23 00:58	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/19/23 14:40	04/22/23 00:58	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/19/23 14:40	04/22/23 00:58	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 00:58	1
1,4-Dioxane	ND	UJ	9.7	0.97	ug/L		04/19/23 14:40	04/22/23 00:58	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 00:58	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 00:58	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/19/23 14:40	04/22/23 00:58	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/19/23 14:40	04/22/23 00:58	1
Indene	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 00:58	1
Isophorone	ND		9.7	0.14	ug/L		04/19/23 14:40	04/22/23 00:58	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/19/23 14:40	04/22/23 00:58	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/19/23 14:40	04/22/23 00:58	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/19/23 14:40	04/22/23 00:58	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/19/23 14:40	04/22/23 00:58	1
4-Nitroaniline	ND		9.7	1.4	ug/L		04/19/23 14:40	04/22/23 00:58	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/19/23 14:40	04/22/23 00:58	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/19/23 14:40	04/22/23 00:58	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/19/23 14:40	04/22/23 00:58	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 00:58	1
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/19/23 14:40	04/22/23 00:58	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: ROST4PZE-ROX-041823-DUP

Lab Sample ID: 400-236316-7

Date Collected: 04/18/23 11:45

Matrix: Water

Date Received: 04/19/23 09:16

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/19/23 14:40	04/22/23 00:58	1
Pentachlorophenol	ND		19	1.4	ug/L		04/19/23 14:40	04/22/23 00:58	1
Phenol	ND		9.7	2.5	ug/L		04/19/23 14:40	04/22/23 00:58	1
Pyridine	ND		9.7	3.1	ug/L		04/19/23 14:40	04/22/23 00:58	1
Quinoline	ND		9.7	4.3	ug/L		04/19/23 14:40	04/22/23 00:58	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/19/23 14:40	04/22/23 00:58	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*04/19/23 14:40*	*04/22/23 00:58*	*1*
2-Fluorophenol	*17*		*13 - 113*	*04/19/23 14:40*	*04/22/23 00:58*	*1*
Nitrobenzene-d5	*77*		*36 - 126*	*04/19/23 14:40*	*04/22/23 00:58*	*1*
Phenol-d5	*40*		*17 - 127*	*04/19/23 14:40*	*04/22/23 00:58*	*1*
Terphenyl-d14	*82*		*44 - 149*	*04/19/23 14:40*	*04/22/23 00:58*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*04/19/23 14:40*	*04/22/23 00:58*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/19/23 14:40	05/08/23 14:15	1

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/25/23 15:00	04/26/23 13:37	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/25/23 15:00	04/26/23 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*51 - 149*	*04/25/23 15:00*	*04/26/23 13:37*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-236316-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236316-1	TB-ROX-041823-8260	105	102	94
400-236316-3	MW2-ROX-041823-EB	107	104	94
400-236316-4	MW2-ROX-041823	109	98	93
400-236316-5	MW22-ROX-041823	108	99	93
400-236316-6	ROST4PZE-ROX-041823	110	99	94
400-236316-7	ROST4PZE-ROX-041823-DUP	109	101	93
LCS 400-622650/1002	Lab Control Sample	109	100	94
MB 400-622650/4	Method Blank	105	102	95

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236316-3	MW2-ROX-041823-EB	88	66	84	84	85	87
400-236316-4	MW2-ROX-041823	83	52	80	78	80	97
400-236316-5	MW22-ROX-041823	83	66	78	82	80	104
400-236316-6	ROST4PZE-ROX-041823	77	54	73	72	82	99
400-236316-7	ROST4PZE-ROX-041823-DUP	81	17	77	40	82	86
LCS 400-621528/2-A	Lab Control Sample	81	72	83	84	82	99
LCS 400-621528/5-A	Lab Control Sample	83	71	78	84	81	74
LCSD 400-621528/6-A	Lab Control Sample Dup	86	70	82	84	84	74
MB 400-621528/1-A	Method Blank	82	49	75	71	78	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236316-3	MW2-ROX-041823-EB	149 S1+	136 S1+	178 S1+
400-236316-4	MW2-ROX-041823	112	112	127
400-236316-5	MW22-ROX-041823	116	130	134
400-236316-6	ROST4PZE-ROX-041823	113	95	130
400-236316-7	ROST4PZE-ROX-041823-DUP	98	94	127
LCS 400-621528/2-A	Lab Control Sample	88	85	101
MB 400-621528/1-A	Method Blank	109	99	135

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-236316-2	TB-ROX-041823-8011	125
400-236316-3	MW2-ROX-041823-EB	118
400-236316-4	MW2-ROX-041823	116
400-236316-5	MW22-ROX-041823	117
400-236316-6	ROST4PZE-ROX-041823	114
400-236316-7	ROST4PZE-ROX-041823-DUP	122
LCS 400-622241/2-A	Lab Control Sample	108
LCSD 400-622241/3-A	Lab Control Sample Dup	110
MB 400-622241/1-A	Method Blank	113

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

Client Sample ID: TB-ROX-041823-8260
Lab Sample ID: 400-236316-1
Date Collected: 04/18/23 12:00
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622650	04/28/23 13:52	WPD	EET PEN

Client Sample ID: TB-ROX-041823-8011
Lab Sample ID: 400-236316-2
Date Collected: 04/18/23 12:00
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			36.1 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 11:33	PG	EET PEN

Client Sample ID: MW2-ROX-041823-EB
Lab Sample ID: 400-236316-3
Date Collected: 04/18/23 08:20
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622650	04/28/23 08:57	WPD	EET PEN
Total/NA	Prep	3520C			262 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 23:36	PP1	EET PEN
Total/NA	Prep	3520C			262 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621812	04/21/23 18:45	PP1	EET PEN
Total/NA	Prep	8011			36.2 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 11:54	PG	EET PEN

Client Sample ID: MW2-ROX-041823
Lab Sample ID: 400-236316-4
Date Collected: 04/18/23 09:20
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	5 mL	5 mL	622650	04/28/23 17:40	WPD	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 23:56	PP1	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 17:34	PP1	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 12:14	PG	EET PEN

Client Sample ID: MW22-ROX-041823
Lab Sample ID: 400-236316-5
Date Collected: 04/18/23 10:30
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	5 mL	5 mL	622650	04/28/23 17:17	WPD	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 00:17	PP1	EET PEN

Client Sample ID: MW22-ROX-041823

Lab Sample ID: 400-236316-5

Date Collected: 04/18/23 10:30

Matrix: Water

Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			256.4 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 17:51	PP1	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 12:35	PG	EET PEN

Client Sample ID: ROST4PZE-ROX-041823

Lab Sample ID: 400-236316-6

Date Collected: 04/18/23 11:45

Matrix: Water

Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622650	04/28/23 14:38	WPD	EET PEN
Total/NA	Prep	3520C			254.2 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 00:37	PP1	EET PEN
Total/NA	Prep	3520C			254.2 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 18:08	PP1	EET PEN
Total/NA	Prep	8011			35.9 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 12:56	PG	EET PEN

Client Sample ID: ROST4PZE-ROX-041823-DUP

Lab Sample ID: 400-236316-7

Date Collected: 04/18/23 11:45

Matrix: Water

Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622650	04/28/23 15:01	WPD	EET PEN
Total/NA	Prep	3520C			259 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 00:58	PP1	EET PEN
Total/NA	Prep	3520C	RA		259 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D	RA	1	0.4 mL	0.4 mL	623931	05/08/23 14:15	S1B	EET PEN
Total/NA	Prep	3520C			259 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 18:26	PP1	EET PEN
Total/NA	Prep	8011			36.1 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 13:37	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621528/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 19:48	PP1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 16:59	PP1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622241/1-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 09:50	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622650/4

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622650	04/28/23 07:48	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621528/2-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:50	PP1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622050	04/24/23 17:17	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621528/5-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:09	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622241/2-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 10:10	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622650/1002

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622650	04/28/23 07:03	WPD	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-236316-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621528/6-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:30	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622241/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 10:31	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622650

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-1	TB-ROX-041823-8260	Total/NA	Water	8260B	
400-236316-3	MW2-ROX-041823-EB	Total/NA	Water	8260B	
400-236316-4	MW2-ROX-041823	Total/NA	Water	8260B	
400-236316-5	MW22-ROX-041823	Total/NA	Water	8260B	
400-236316-6	ROST4PZE-ROX-041823	Total/NA	Water	8260B	
400-236316-7	ROST4PZE-ROX-041823-DUP	Total/NA	Water	8260B	
MB 400-622650/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622650/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-3	MW2-ROX-041823-EB	Total/NA	Water	3520C	
400-236316-4	MW2-ROX-041823	Total/NA	Water	3520C	
400-236316-5	MW22-ROX-041823	Total/NA	Water	3520C	
400-236316-6	ROST4PZE-ROX-041823	Total/NA	Water	3520C	
400-236316-7	ROST4PZE-ROX-041823-DUP	Total/NA	Water	3520C	
400-236316-7 - RA	ROST4PZE-ROX-041823-DUP	Total/NA	Water	3520C	
MB 400-621528/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621528/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621528/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 621812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-3	MW2-ROX-041823-EB	Total/NA	Water	8270D LL	621528

Analysis Batch: 621820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-3	MW2-ROX-041823-EB	Total/NA	Water	8270D	621528
400-236316-4	MW2-ROX-041823	Total/NA	Water	8270D	621528
400-236316-5	MW22-ROX-041823	Total/NA	Water	8270D	621528
400-236316-6	ROST4PZE-ROX-041823	Total/NA	Water	8270D	621528
400-236316-7	ROST4PZE-ROX-041823-DUP	Total/NA	Water	8270D	621528
MB 400-621528/1-A	Method Blank	Total/NA	Water	8270D	621528
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	8270D	621528
LCS 400-621528/5-A	Lab Control Sample	Total/NA	Water	8270D	621528
LCSD 400-621528/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	621528

Analysis Batch: 622050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-4	MW2-ROX-041823	Total/NA	Water	8270D LL	621528
400-236316-5	MW22-ROX-041823	Total/NA	Water	8270D LL	621528
400-236316-6	ROST4PZE-ROX-041823	Total/NA	Water	8270D LL	621528
400-236316-7	ROST4PZE-ROX-041823-DUP	Total/NA	Water	8270D LL	621528
MB 400-621528/1-A	Method Blank	Total/NA	Water	8270D LL	621528
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621528

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236316-1

GC/MS Semi VOA

Analysis Batch: 623931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-7 - RA	ROST4PZE-ROX-041823-DUP	Total/NA	Water	8270D	621528

GC Semi VOA

Prep Batch: 622241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-2	TB-ROX-041823-8011	Total/NA	Water	8011	
400-236316-3	MW2-ROX-041823-EB	Total/NA	Water	8011	
400-236316-4	MW2-ROX-041823	Total/NA	Water	8011	
400-236316-5	MW22-ROX-041823	Total/NA	Water	8011	
400-236316-6	ROST4PZE-ROX-041823	Total/NA	Water	8011	
400-236316-7	ROST4PZE-ROX-041823-DUP	Total/NA	Water	8011	
MB 400-622241/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622241/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622241/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236316-2	TB-ROX-041823-8011	Total/NA	Water	8011	622241
400-236316-3	MW2-ROX-041823-EB	Total/NA	Water	8011	622241
400-236316-4	MW2-ROX-041823	Total/NA	Water	8011	622241
400-236316-5	MW22-ROX-041823	Total/NA	Water	8011	622241
400-236316-6	ROST4PZE-ROX-041823	Total/NA	Water	8011	622241
400-236316-7	ROST4PZE-ROX-041823-DUP	Total/NA	Water	8011	622241
MB 400-622241/1-A	Method Blank	Total/NA	Water	8011	622241
LCS 400-622241/2-A	Lab Control Sample	Total/NA	Water	8011	622241
LCSD 400-622241/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622241

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622650/4
Matrix: Water
Analysis Batch: 622650

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/23 07:48	1
Acrolein	ND		20	3.3	ug/L			04/28/23 07:48	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/23 07:48	1
Benzene	ND		1.0	0.13	ug/L			04/28/23 07:48	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/23 07:48	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/23 07:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/23 07:48	1
Bromoform	ND		5.0	0.25	ug/L			04/28/23 07:48	1
Bromomethane	ND		1.0	0.98	ug/L			04/28/23 07:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/28/23 07:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/23 07:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/23 07:48	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/23 07:48	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/23 07:48	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/23 07:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/23 07:48	1
Chloroform	ND		1.0	1.0	ug/L			04/28/23 07:48	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/23 07:48	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/23 07:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/23 07:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/23 07:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/23 07:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/23 07:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/23 07:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/23 07:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/23 07:48	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/23 07:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 07:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 07:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 07:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/23 07:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/23 07:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/28/23 07:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/23 07:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/23 07:48	1
2-Hexanone	ND		25	1.4	ug/L			04/28/23 07:48	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/28/23 07:48	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/23 07:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/23 07:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/23 07:48	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/23 07:48	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/28/23 07:48	1
Naphthalene	ND		5.0	3.0	ug/L			04/28/23 07:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/28/23 07:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/28/23 07:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/23 07:48	1
o-Xylene	ND		5.0	0.60	ug/L			04/28/23 07:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/23 07:48	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622650/4
Matrix: Water
Analysis Batch: 622650

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/28/23 07:48	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/28/23 07:48	1
Styrene	ND		1.0	1.0	ug/L			04/28/23 07:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/23 07:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/23 07:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/23 07:48	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/23 07:48	1
Toluene	ND		1.0	0.41	ug/L			04/28/23 07:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/23 07:48	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/23 07:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/23 07:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/23 07:48	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/23 07:48	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/23 07:48	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/23 07:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/23 07:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/23 07:48	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/28/23 07:48	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/28/23 07:48	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/23 07:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/28/23 07:48	1
Xylenes, Total	ND		10	1.6	ug/L			04/28/23 07:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/28/23 07:48*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/28/23 07:48*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/28/23 07:48*	*1*

Lab Sample ID: LCS 400-622650/1002
Matrix: Water
Analysis Batch: 622650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	181		ug/L		90	43 - 160
Acrolein	250	248		ug/L		99	38 - 160
Acrylonitrile	500	461		ug/L		92	64 - 142
Benzene	50.0	50.6		ug/L		101	70 - 130
Bromobenzene	50.0	48.9		ug/L		98	70 - 132
Bromochloromethane	50.0	51.2		ug/L		102	70 - 130
Bromodichloromethane	50.0	55.2		ug/L		110	67 - 133
Bromoform	50.0	56.5		ug/L		113	57 - 140
Bromomethane	25.0	21.9		ug/L		87	10 - 160
2-Butanone (MEK)	200	183		ug/L		92	61 - 145
Carbon disulfide	50.0	47.6		ug/L		95	61 - 137
Carbon tetrachloride	50.0	52.0		ug/L		104	61 - 137
Chlorobenzene	50.0	46.9		ug/L		94	70 - 130
Dibromochloromethane	50.0	51.1		ug/L		102	67 - 135
Chloroethane	25.0	20.1		ug/L		80	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622650/1002
Matrix: Water
Analysis Batch: 622650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	25.0	30.5		ug/L		122	10 - 160
Chloroform	50.0	51.1		ug/L		102	69 - 130
1-Chlorohexane	50.0	44.6		ug/L		89	69 - 130
Chloromethane	25.0	23.6		ug/L		94	58 - 137
cis-1,2-Dichloroethene	50.0	52.2		ug/L		104	68 - 130
cis-1,3-Dichloropropene	50.0	59.1		ug/L		118	69 - 132
1,2-Dichlorobenzene	50.0	47.1		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	47.3		ug/L		95	70 - 130
1,4-Dichlorobenzene	50.0	47.0		ug/L		94	70 - 130
Dichlorodifluoromethane	25.0	16.3		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	51.0		ug/L		102	70 - 130
1,2-Dichloroethane	50.0	53.5		ug/L		107	69 - 130
1,1-Dichloroethene	50.0	46.5		ug/L		93	63 - 134
1,2-Dichloropropane	50.0	54.6		ug/L		109	70 - 130
1,3-Dichloropropane	50.0	51.6		ug/L		103	70 - 130
2,2-Dichloropropane	50.0	62.0		ug/L		124	52 - 135
1,1-Dichloropropene	50.0	48.3		ug/L		97	70 - 130
Ethylbenzene	50.0	45.7		ug/L		91	70 - 130
Ethyl methacrylate	50.0	54.5		ug/L		109	68 - 130
Hexachlorobutadiene	50.0	45.8		ug/L		92	53 - 140
2-Hexanone	200	167		ug/L		84	65 - 137
Isopropy benzene	50.0	44.3		ug/L		89	70 - 130
Methylene bromide	50.0	54.5		ug/L		109	70 - 130
Methylene Chloride	50.0	52.6		ug/L		105	66 - 135
4-Methyl-2-pentanone (MIBK)	200	203		ug/L		101	69 - 138
Methyl tert-butyl ether	50.0	58.1		ug/L		116	66 - 130
m-Xylene & p-Xylene	50.0	45.0		ug/L		90	70 - 130
Naphthalene	50.0	49.6		ug/L		99	47 - 149
n-Butylbenzene	50.0	43.8		ug/L		88	67 - 130
N-Propylbenzene	50.0	47.8		ug/L		96	70 - 130
o-Chlorotoluene	50.0	45.5		ug/L		91	70 - 130
o-Xylene	50.0	45.8		ug/L		92	70 - 130
p-Chlorotoluene	50.0	49.1		ug/L		98	70 - 130
p-Isopropyltoluene	50.0	47.1		ug/L		94	65 - 130
sec-Butylbenzene	50.0	46.3		ug/L		93	66 - 130
Styrene	50.0	47.2		ug/L		94	70 - 130
tert-Butylbenzene	50.0	47.6		ug/L		95	64 - 139
1,1,1,2-Tetrachloroethane	50.0	54.6		ug/L		109	67 - 131
1,1,2,2-Tetrachloroethane	50.0	53.9		ug/L		108	70 - 131
Tetrachloroethene	50.0	42.8		ug/L		86	65 - 130
Toluene	50.0	44.9		ug/L		90	70 - 130
trans-1,2-Dichloroethene	50.0	47.2		ug/L		94	70 - 130
trans-1,3-Dichloropropene	50.0	57.5		ug/L		115	63 - 130
1,2,3-Trichlorobenzene	50.0	50.9		ug/L		102	60 - 138
1,2,4-Trichlorobenzene	50.0	50.2		ug/L		100	60 - 140
1,1,1-Trichloroethane	50.0	49.9		ug/L		100	68 - 130
1,1,2-Trichloroethane	50.0	50.1		ug/L		100	70 - 130
Trichloroethene	50.0	47.2		ug/L		94	70 - 130
Trichlorofluoromethane	25.0	22.0		ug/L		88	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622650/1002
Matrix: Water
Analysis Batch: 622650

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	51.4		ug/L		103	70 - 130
1,2,4-Trimethy benzene	50.0	49.9		ug/L		100	70 - 130
1,3,5-Trimethy benzene	50.0	48.9		ug/L		98	69 - 130
Vinyl acetate	50.0	73.5		ug/L		147	26 - 160
Vinyl chloride	25.0	19.8		ug/L		79	59 - 136
Xylenes, Total	100	90.8		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*94*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzenethiol	ND		10	1.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzoic acid	ND		30	7.3	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzyl alcohol	ND		10	2.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/19/23 14:40	04/21/23 19:48	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chloroaniline	ND		10	3.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Chlorophenol	ND		10	2.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dibenzofuran	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Diethyl phthalate	ND		10	0.24	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/21/23 19:48	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
1,4-Dioxane	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachloroethane	ND		10	4.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
Indene	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Isophorone	ND		10	0.14	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Methylphenol	ND		10	1.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Nitroaniline	ND		10	2.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
3-Nitroaniline	ND		10	1.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Nitroaniline	ND		10	1.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
Nitrobenzene	ND		10	0.13	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Nitrophenol	ND		10	5.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Nitrophenol	ND		10	2.1	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/19/23 14:40	04/21/23 19:48	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
Phenol	ND		10	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
Pyridine	ND		10	3.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
Quinoline	ND		10	4.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
2-Fluorophenol	*49*		*13 - 113*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Phenol-d5	*71*		*17 - 127*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Terphenyl-d14	*78*		*44 - 149*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*04/19/23 14:40*	*04/21/23 19:48*	*1*

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	106		ug/L		88	21 - 120
Benzoic acid	554	441		ug/L		80	10 - 144
Benzyl alcohol	120	103		ug/L		86	28 - 120
Bis(2-chloroethoxy)methane	120	89.4		ug/L		74	47 - 120
Bis(2-chloroethyl)ether	120	94.5		ug/L		79	44 - 120
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121
Bis(2-ethylhexyl) phthalate	120	95.0		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	94.6		ug/L		79	54 - 122
Butyl benzyl phthalate	120	96.4		ug/L		80	54 - 133
4-Chloroaniline	120	86.0		ug/L		72	26 - 120
4-Chloro-3-methylphenol	120	107		ug/L		89	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	99.3		ug/L		83	52 - 121
2-Chlorophenol	120	95.5		ug/L		80	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	123		ug/L		103	31 - 150
Dibenzofuran	120	106		ug/L		88	56 - 122
3,3'-Dichlorobenzidine	160	199		ug/L		124	36 - 132
2,4-Dichlorophenol	120	101		ug/L		84	49 - 120
Diethyl phthalate	120	109		ug/L		91	50 - 137
2,4-Dimethylphenol	120	79.6		ug/L		66	48 - 120
Dimethyl phthalate	120	99.5		ug/L		83	57 - 124
Di-n-butyl phthalate	120	102		ug/L		85	58 - 126
4,6-Dinitro-ortho-cresol	240	215		ug/L		89	23 - 148
2,4-Dinitrophenol	240	246		ug/L		103	10 - 150
2,4-Dinitrotoluene	120	107		ug/L		89	54 - 142
2,6-Dinitrotoluene	120	102		ug/L		85	55 - 130
Di-n-octyl phthalate	120	92.3		ug/L		77	57 - 138
1,4-Dioxane	120	61.6		ug/L		51	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	95.8		ug/L		80	45 - 124
Hexachlorobenzene	120	105		ug/L		88	52 - 129
Hexachlorocyclopentadiene	120	76.0		ug/L		63	10 - 134
Hexachloroethane	120	94.5		ug/L		79	20 - 120
Indene	120	105		ug/L		88	49 - 120
Isophorone	120	91.3		ug/L		76	48 - 120
2-Methylphenol	120	103		ug/L		86	46 - 124
3 & 4 Methylphenol	120	104		ug/L		87	45 - 120
2-Nitroaniline	120	101		ug/L		84	51 - 145
3-Nitroaniline	120	126		ug/L		105	37 - 127
4-Nitroaniline	120	135		ug/L		113	36 - 137
Nitrobenzene	120	89.3		ug/L		74	45 - 120
2-Nitrophenol	120	97.1		ug/L		81	40 - 124
4-Nitrophenol	240	208		ug/L		87	23 - 146
N-Nitrosodimethylamine	120	98.3		ug/L		82	29 - 137
N-Nitrosodi-n-propylamine	120	104		ug/L		87	45 - 120
N-Nitrosodiphenylamine	119	88.3		ug/L		74	54 - 120
Pentachlorophenol	240	205		ug/L		85	31 - 130
Phenol	120	97.8		ug/L		81	11 - 120
Pyridine	240	164		ug/L		68	16 - 120
Quinoline	120	111		ug/L		93	49 - 130
2,4,5-Trichlorophenol	120	96.7		ug/L		81	51 - 136
2,4,6-Trichlorophenol	120	95.6		ug/L		80	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*72*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*84*		*17 - 127*
Terphenyl-d14	*82*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	99		26 - 150

Lab Sample ID: LCS 400-621528/5-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	4.70	J *-	ug/L		4	10 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	83		46 - 124
2-Fluorophenol	71		13 - 113
Nitrobenzene-d5	78		36 - 126
Phenol-d5	84		17 - 127
Terphenyl-d14	81		44 - 149
2,4,6-Tribromophenol	74		26 - 150

Lab Sample ID: LCSD 400-621528/6-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621528

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.22	J *- *1	ug/L		3	10 - 120	37	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	86		46 - 124
2-Fluorophenol	70		13 - 113
Nitrobenzene-d5	82		36 - 126
Phenol-d5	84		17 - 127
Terphenyl-d14	84		44 - 149
2,4,6-Tribromophenol	74		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/19/23 14:40	04/24/23 16:59	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/19/23 14:40	04/24/23 16:59	1
Anthracene	ND		0.20	0.032	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/19/23 14:40	04/24/23 16:59	1
Chrysene	ND		0.20	0.074	ug/L		04/19/23 14:40	04/24/23 16:59	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/19/23 14:40	04/24/23 16:59	1
Fluoranthene	ND		0.20	0.068	ug/L		04/19/23 14:40	04/24/23 16:59	1
Fluorene	ND		0.20	0.11	ug/L		04/19/23 14:40	04/24/23 16:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/19/23 14:40	04/24/23 16:59	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/19/23 14:40	04/24/23 16:59	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/19/23 14:40	04/24/23 16:59	1
Phenanthrene	ND		0.20	0.036	ug/L		04/19/23 14:40	04/24/23 16:59	1
Pyrene	ND		0.20	0.040	ug/L		04/19/23 14:40	04/24/23 16:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*04/19/23 14:40*	*04/24/23 16:59*	*1*
Nitrobenzene-d5	*99*		*19 - 130*	*04/19/23 14:40*	*04/24/23 16:59*	*1*
Terphenyl-d14	*135*		*33 - 138*	*04/19/23 14:40*	*04/24/23 16:59*	*1*

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	110		ug/L		92	41 - 120
Acenaphthylene	120	118		ug/L		98	44 - 120
Anthracene	120	130		ug/L		109	49 - 120
Benzo[a]anthracene	120	133		ug/L		111	61 - 135
Benzo[a]pyrene	120	132		ug/L		110	52 - 120
Benzo[b]fluoranthene	120	130		ug/L		109	53 - 134
Benzo[g,h,i]perylene	120	128		ug/L		107	47 - 133
Benzo[k]fluoranthene	120	121		ug/L		101	57 - 134
Chrysene	120	127		ug/L		106	55 - 122
Dibenz(a,h)anthracene	120	139		ug/L		116	48 - 146
Fluoranthene	120	129		ug/L		108	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	126		ug/L		105	43 - 142
1-Methylnaphthalene	120	98.4		ug/L		82	41 - 120
2-Methylnaphthalene	120	97.1		ug/L		81	32 - 124
Phenanthrene	120	121		ug/L		101	48 - 120
Pyrene	120	125		ug/L		104	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*
Nitrobenzene-d5	*85*		*19 - 130*
Terphenyl-d14	*101*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622241/1-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/25/23 15:00	04/26/23 09:50	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/25/23 15:00	04/26/23 09:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/25/23 15:00*	*04/26/23 09:50*	*1*

Lab Sample ID: LCS 400-622241/2-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622241

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.132		ug/L		131	60 - 140		
1,2-D bromoethane			0.101	0.119		ug/L		118	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*51 - 149*

Lab Sample ID: LCSD 400-622241/3-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622241

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.128		ug/L		127	60 - 140	3	30
1,2-D bromoethane			0.101	0.118		ug/L		117	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/18/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60697537 – 3.2.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):	SAMPLER NAME(S) (Print):	LAB USE ONLY
Melissa Remiger, Mary Massa, Brett Howell	M. Massa, T. Jenkins	

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; ioredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
1.2, 5.0,
1.1 IR11

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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041823-8260	4/18/2023	0000	Water	2					2	X			
	TB-ROX-041823-8011	4/18/2023	0000	Water	2					2		X		
	MW2-ROX-041823-EB	4/18/2023	0820	Water	6			2		8	X	X	X	X
	MW2-ROX-041823	4/18/2023	0920	Water	6			2		8	X	X	X	X
	MW22-ROX-041823	4/18/2023	1030	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-041823	4/18/2023	1145	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-041823-DUP	4/18/2023	1145	Water	6			2		8	X	X	X	X

400-236316 COC

MM 4-18-23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5293 4337 5261, 5293 4337 5283, 5293 4337 5272	4/18/2023	1600
		4.19.23	9:16

CUSTODY SEALS: 1599714, 1599715, 1599716, 1599717, 1599718, 1599719

Version: 13Oct22

Page 51 of 53

5/12/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-236316-1

Login Number: 236316 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Whitley, Adrian

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.2, 1.1, 5.0°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236316-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400- 400-236319-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/31/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041723-8260	TB-ROX-041723-8011
ROST4PZC-ROX-041723-EB	ROST4PZC-ROX-041723
MW3-ROX-041723	MW3-ROX-041723-DUP
P74-ROX-041723	--

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 benzenethiol LCS/LCSD recoveries, and LCS/LCSD RPD, were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in several investigative and quality control samples. The continuing calibration verifications (CCV) for chloroform and 1,4-dioxane were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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
LCS/LCSD 400-621528/5-A/6-A	SVOCs	Benzenethiol	**4/3**	**37**	10-120/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-041723	SVOCs	Benzenethiol	**UJ**
MW3-ROX-041723	SVOCs	Benzenethiol	**UJ**
MW3-ROX-041723-DUP	SVOCs	Benzenethiol	**UJ**
P74-ROX-041723	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
ROST4PZC-ROX-041723-EB	PAHs	2-Fluorobiphenyl	**146**	15-122
ROST4PZC-ROX-041723-EB	PAHs	Terphenyl-d14	**175**	33-138
MW3-ROX-041723	PAHs	2-Fluorobiphenyl	**141**	15-122
MW3-ROX-041723	PAHs	Terphenyl-d14	**162**	33-138
MW3-ROX-041723-DUP	PAHs	2-Fluorobiphenyl	**137**	15-122
MW3-ROX-041723-DUP	PAHs	Terphenyl-d14	**169**	33-138
P74-ROX-041723	PAHs	2-Fluorobiphenyl	**147**	15-122
P74-ROX-041723	PAHs	Nitrobenzene-d5	**132**	19-130
P74-ROX-041723	PAHs	Terphenyl-d14	**174**	33-138

Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Equipment blanks are quality control samples and do not require qualification.

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
MW3-ROX-041723	MW3-ROX-041723-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; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications (CCV) for chloroform and 1,4-dioxane were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-041723	VOCs	Chloroform	**UJ**
MW3-ROX-041723	VOCs	Chloroform	**UJ**
MW3-ROX-041723-DUP	VOCs	Chloroform	**UJ**
P74-ROX-041723	VOCs	Chloroform	**UJ**
ROST4PZC-ROX-041723	SVOCs	1,4-Dioxane	**UJ**
MW3-ROX-041723	SVOCs	1,4-Dioxane	**UJ**
MW3-ROX-041723-DUP	SVOCs	1,4-Dioxane	**UJ**
P74-ROX-041723	SVOCs	1,4-Dioxane	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 5/17/2023 6:14:32 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236319-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 31
Surrogate Summary 32
Method Summary 34
Chronicle 35
QC Association 39
QC Sample Results 41
Chain of Custody 51
Receipt Checklists 52
Certification Summary 53

Job ID: 400-236319-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236319-1

Receipt
The samples were received on 4/19/2023 9:16 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 6.0°C

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-622811 recovered outside acceptance criteria, low biased, for Chloroform. A reporting limit (RL) standard was analyzed, and the target analyte is detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041723-8260 (400-236319-1), ROST4PZC-ROX-041723-EB (400-236319-3), ROST4PZC-ROX-041723 (400-236319-4), MW3-ROX-041723 (400-236319-5), MW3-ROX-041723-DUP (400-236319-6) and P74-ROX-041723 (400-236319-7). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621820 recovered above the upper control limit for Benzenethiol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 400-621820/6).

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621528 and analytical batch 400-621820 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-621528 and analytical batch 400-621820 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-621820 recovered outside acceptance criteria, low biased, for 1,4-Dioxane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-621528 and 400-621528 and analytical batch 400-621820 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8270D_LL: Surrogate recovery for the following samples were outside the upper control limit: ROST4PZC-ROX-041723-EB (400-236319-3), MW3-ROX-041723 (400-236319-5), MW3-ROX-041723-DUP (400-236319-6) and P74-ROX-041723 (400-236319-7). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-622077 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-236319-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622077 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622312 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236319-1	TB-ROX-041723-8260	Water	04/17/23 12:00	04/19/23 09:16
400-236319-2	TB-ROX-041723-8011	Water	04/17/23 12:00	04/19/23 09:16
400-236319-3	ROST4PZC-ROX-041723-EB	Water	04/17/23 08:00	04/19/23 09:16
400-236319-4	ROST4PZC-ROX-041723	Water	04/17/23 09:55	04/19/23 09:16
400-236319-5	MW3-ROX-041723	Water	04/17/23 11:00	04/19/23 09:16
400-236319-6	MW3-ROX-041723-DUP	Water	04/17/23 11:00	04/19/23 09:16
400-236319-7	P74-ROX-041723	Water	04/17/23 13:25	04/19/23 09:16

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: TB-ROX-041723-8260 — Lab Sample ID: 400-236319-1

No Detections.

Client Sample ID: TB-ROX-041723-8011 — Lab Sample ID: 400-236319-2

No Detections.

Client Sample ID: ROST4PZC-ROX-041723-EB — Lab Sample ID: 400-236319-3

No Detections.

Client Sample ID: ROST4PZC-ROX-041723 — Lab Sample ID: 400-236319-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.0		1.0	0.13	ug/L	1		8260B	Total/NA
N-Propylbenzene	0.86	J	1.0	0.69	ug/L	1		8260B	Total/NA
Toluene	0.56	J	1.0	0.41	ug/L	1		8260B	Total/NA
Acenaphthene	0.59		0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.16	J	0.19	0.043	ug/L	1		8270D LL	Total/NA
Anthracene	0.43		0.19	0.031	ug/L	1		8270D LL	Total/NA
Fluorene	0.65		0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	1.7		0.19	0.071	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.69		0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.25		0.19	0.038	ug/L	1		8270D LL	Total/NA
Benzoic acid	19	J	29	7.0	ug/L	1		8270D	Total/NA

Client Sample ID: MW3-ROX-041723 — Lab Sample ID: 400-236319-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.64	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW3-ROX-041723-DUP — Lab Sample ID: 400-236319-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.74	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: P74-ROX-041723 — Lab Sample ID: 400-236319-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22	J	25	10	ug/L	1		8260B	Total/NA
Benzene	12		1.0	0.13	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: TB-ROX-041723-8260
Date Collected: 04/17/23 12:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 14:37	1
Acrolein	ND		20	3.3	ug/L			04/29/23 14:37	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 14:37	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 14:37	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 14:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 14:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 14:37	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 14:37	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 14:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 14:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 14:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 14:37	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 14:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 14:37	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 14:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 14:37	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 14:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 14:37	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 14:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 14:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 14:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 14:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 14:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 14:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 14:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 14:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 14:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 14:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 14:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 14:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 14:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 14:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 14:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 14:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 14:37	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 14:37	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 14:37	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 14:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 14:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 14:37	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 14:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 14:37	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 14:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 14:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 14:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 14:37	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 14:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 14:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 14:37	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: TB-ROX-041723-8260
Date Collected: 04/17/23 12:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 14:37	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 14:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 14:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 14:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 14:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 14:37	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 14:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 14:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 14:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 14:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 14:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 14:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 14:37	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 14:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 14:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 14:37	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 14:37	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 14:37	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 14:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 14:37	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/29/23 14:37*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/29/23 14:37*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 14:37*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: TB-ROX-041723-8011
Date Collected: 04/17/23 12:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		04/24/23 13:58	04/24/23 23:11	1
1,2-D bromoethane	ND		0.021	0.015	ug/L		04/24/23 13:58	04/24/23 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*04/24/23 13:58*	*04/24/23 23:11*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: ROST4PZC-ROX-041723-EB
Date Collected: 04/17/23 08:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 15:01	1
Acrolein	ND		20	3.3	ug/L			04/29/23 15:01	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 15:01	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 15:01	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 15:01	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 15:01	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 15:01	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 15:01	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 15:01	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 15:01	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 15:01	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 15:01	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 15:01	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 15:01	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 15:01	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 15:01	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 15:01	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 15:01	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 15:01	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 15:01	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 15:01	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 15:01	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 15:01	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 15:01	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 15:01	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 15:01	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 15:01	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 15:01	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 15:01	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 15:01	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 15:01	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 15:01	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 15:01	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 15:01	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 15:01	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 15:01	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 15:01	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 15:01	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 15:01	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 15:01	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 15:01	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 15:01	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 15:01	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 15:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 15:01	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 15:01	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 15:01	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 15:01	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 15:01	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: ROST4PZC-ROX-041723-EB

Date Collected: 04/17/23 08:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 15:01	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 15:01	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 15:01	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 15:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 15:01	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 15:01	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 15:01	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 15:01	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 15:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 15:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 15:01	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 15:01	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 15:01	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 15:01	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 15:01	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 15:01	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 15:01	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 15:01	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 15:01	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 15:01	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 15:01*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/29/23 15:01*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 15:01*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 20:11	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/19/23 14:40	04/21/23 20:11	1
Anthracene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 20:11	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/19/23 14:40	04/21/23 20:11	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/19/23 14:40	04/21/23 20:11	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/19/23 14:40	04/21/23 20:11	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/19/23 14:40	04/21/23 20:11	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/19/23 14:40	04/21/23 20:11	1
Chrysene	ND		0.19	0.072	ug/L		04/19/23 14:40	04/21/23 20:11	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/23 14:40	04/21/23 20:11	1
Fluoranthene	ND		0.19	0.066	ug/L		04/19/23 14:40	04/21/23 20:11	1
Fluorene	ND		0.19	0.11	ug/L		04/19/23 14:40	04/21/23 20:11	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/19/23 14:40	04/21/23 20:11	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/19/23 14:40	04/21/23 20:11	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/19/23 14:40	04/21/23 20:11	1
Phenanthrene	ND		0.19	0.035	ug/L		04/19/23 14:40	04/21/23 20:11	1
Pyrene	ND		0.19	0.039	ug/L		04/19/23 14:40	04/21/23 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*146*	*S1+*	*15 - 122*	*04/19/23 14:40*	*04/21/23 20:11*	*1*
Nitrobenzene-d5	*129*		*19 - 130*	*04/19/23 14:40*	*04/21/23 20:11*	*1*

Client Sample ID: ROST4PZC-ROX-041723-EB
Date Collected: 04/17/23 08:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*175*	*S1+*	*33 - 138*	*04/19/23 14:40*	*04/21/23 20:11*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/19/23 14:40	04/22/23 01:19	1
Benzenethiol	ND	*- *1	9.7	1.6	ug/L		04/19/23 14:40	04/22/23 01:19	1
Benzoic acid	ND		29	7.1	ug/L		04/19/23 14:40	04/22/23 01:19	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 01:19	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		04/19/23 14:40	04/22/23 01:19	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/19/23 14:40	04/22/23 01:19	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		04/19/23 14:40	04/22/23 01:19	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/19/23 14:40	04/22/23 01:19	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/19/23 14:40	04/22/23 01:19	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/19/23 14:40	04/22/23 01:19	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/19/23 14:40	04/22/23 01:19	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/19/23 14:40	04/22/23 01:19	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/19/23 14:40	04/22/23 01:19	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/19/23 14:40	04/22/23 01:19	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 01:19	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 01:19	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 01:19	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/19/23 14:40	04/22/23 01:19	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/19/23 14:40	04/22/23 01:19	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/19/23 14:40	04/22/23 01:19	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 01:19	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 01:19	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/19/23 14:40	04/22/23 01:19	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		04/19/23 14:40	04/22/23 01:19	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/22/23 01:19	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/19/23 14:40	04/22/23 01:19	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/19/23 14:40	04/22/23 01:19	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 01:19	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 01:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 01:19	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 01:19	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/19/23 14:40	04/22/23 01:19	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/19/23 14:40	04/22/23 01:19	1
Indene	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 01:19	1
Isophorone	ND		9.7	0.14	ug/L		04/19/23 14:40	04/22/23 01:19	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/19/23 14:40	04/22/23 01:19	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/19/23 14:40	04/22/23 01:19	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/19/23 14:40	04/22/23 01:19	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/19/23 14:40	04/22/23 01:19	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/19/23 14:40	04/22/23 01:19	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/19/23 14:40	04/22/23 01:19	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/19/23 14:40	04/22/23 01:19	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/19/23 14:40	04/22/23 01:19	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 01:19	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: ROST4PZC-ROX-041723-EB

Lab Sample ID: 400-236319-3

Date Collected: 04/17/23 08:00

Matrix: Water

Date Received: 04/19/23 09:16

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/19/23 14:40	04/22/23 01:19	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/19/23 14:40	04/22/23 01:19	1
Pentachlorophenol	ND		19	1.4	ug/L		04/19/23 14:40	04/22/23 01:19	1
Phenol	ND		9.7	2.5	ug/L		04/19/23 14:40	04/22/23 01:19	1
Pyridine	ND		9.7	3.1	ug/L		04/19/23 14:40	04/22/23 01:19	1
Quinoline	ND		9.7	4.4	ug/L		04/19/23 14:40	04/22/23 01:19	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/19/23 14:40	04/22/23 01:19	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*04/19/23 14:40*	*04/22/23 01:19*	*1*
2-Fluorophenol	*55*		*13 - 113*	*04/19/23 14:40*	*04/22/23 01:19*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/19/23 14:40*	*04/22/23 01:19*	*1*
Phenol-d5	*74*		*17 - 127*	*04/19/23 14:40*	*04/22/23 01:19*	*1*
Terphenyl-d14	*84*		*44 - 149*	*04/19/23 14:40*	*04/22/23 01:19*	*1*
2,4,6-Tribromophenol	*85*		*26 - 150*	*04/19/23 14:40*	*04/22/23 01:19*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/24/23 13:58	04/24/23 23:52	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/24/23 13:58	04/24/23 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/24/23 13:58*	*04/24/23 23:52*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: ROST4PZC-ROX-041723
Date Collected: 04/17/23 09:55
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 18:18	1
Acrolein	ND		20	3.3	ug/L			04/29/23 18:18	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 18:18	1
Benzene	**1.0**		1.0	0.13	ug/L			04/29/23 18:18	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 18:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 18:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 18:18	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 18:18	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 18:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 18:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 18:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 18:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 18:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 18:18	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 18:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 18:18	1
Chloroform	ND	UJ	1.0	1.0	ug/L			04/29/23 18:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 18:18	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 18:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 18:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 18:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 18:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 18:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 18:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 18:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 18:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 18:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 18:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 18:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 18:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 18:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 18:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 18:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 18:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 18:18	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 18:18	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 18:18	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 18:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 18:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 18:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 18:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 18:18	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 18:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 18:18	1
N-Propylbenzene	**0.86**	**J**	1.0	0.69	ug/L			04/29/23 18:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 18:18	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 18:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 18:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 18:18	1

Client Sample ID: ROST4PZC-ROX-041723

Lab Sample ID: 400-236319-4

Date Collected: 04/17/23 09:55

Matrix: Water

Date Received: 04/19/23 09:16

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 18:18	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 18:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 18:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 18:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 18:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 18:18	1
Toluene	**0.56**	**J**	1.0	0.41	ug/L			04/29/23 18:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 18:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 18:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 18:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 18:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 18:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 18:18	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 18:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 18:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 18:18	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 18:18	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 18:18	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 18:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 18:18	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/29/23 18:18*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/29/23 18:18*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 18:18*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.59**		0.19	0.031	ug/L		04/19/23 14:40	04/24/23 18:43	1
Acenaphthylene	**0.16**	**J**	0.19	0.043	ug/L		04/19/23 14:40	04/24/23 18:43	1
Anthracene	**0.43**		0.19	0.031	ug/L		04/19/23 14:40	04/24/23 18:43	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/23 14:40	04/24/23 18:43	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/19/23 14:40	04/24/23 18:43	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/19/23 14:40	04/24/23 18:43	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/19/23 14:40	04/24/23 18:43	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/19/23 14:40	04/24/23 18:43	1
Chrysene	ND		0.19	0.071	ug/L		04/19/23 14:40	04/24/23 18:43	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/23 14:40	04/24/23 18:43	1
Fluoranthene	ND		0.19	0.065	ug/L		04/19/23 14:40	04/24/23 18:43	1
Fluorene	**0.65**		0.19	0.11	ug/L		04/19/23 14:40	04/24/23 18:43	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/19/23 14:40	04/24/23 18:43	1
1-Methylnaphthalene	**1.7**		0.19	0.071	ug/L		04/19/23 14:40	04/24/23 18:43	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/19/23 14:40	04/24/23 18:43	1
Phenanthrene	**0.69**		0.19	0.034	ug/L		04/19/23 14:40	04/24/23 18:43	1
Pyrene	**0.25**		0.19	0.038	ug/L		04/19/23 14:40	04/24/23 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*04/19/23 14:40*	*04/24/23 18:43*	*1*
Nitrobenzene-d5	*107*		*19 - 130*	*04/19/23 14:40*	*04/24/23 18:43*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: ROST4PZC-ROX-041723
Date Collected: 04/17/23 09:55
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	120		33 - 138	04/19/23 14:40	04/24/23 18:43	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		04/19/23 14:40	04/22/23 01:39	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		04/19/23 14:40	04/22/23 01:39	1
Benzoic acid	19	J	29	7.0	ug/L		04/19/23 14:40	04/22/23 01:39	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/19/23 14:40	04/22/23 01:39	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/19/23 14:40	04/22/23 01:39	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/19/23 14:40	04/22/23 01:39	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/19/23 14:40	04/22/23 01:39	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/19/23 14:40	04/22/23 01:39	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/19/23 14:40	04/22/23 01:39	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/19/23 14:40	04/22/23 01:39	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/19/23 14:40	04/22/23 01:39	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		04/19/23 14:40	04/22/23 01:39	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/19/23 14:40	04/22/23 01:39	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/19/23 14:40	04/22/23 01:39	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/19/23 14:40	04/22/23 01:39	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/19/23 14:40	04/22/23 01:39	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 01:39	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/19/23 14:40	04/22/23 01:39	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/19/23 14:40	04/22/23 01:39	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/19/23 14:40	04/22/23 01:39	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		04/19/23 14:40	04/22/23 01:39	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 01:39	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/19/23 14:40	04/22/23 01:39	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/19/23 14:40	04/22/23 01:39	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/22/23 01:39	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/19/23 14:40	04/22/23 01:39	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/19/23 14:40	04/22/23 01:39	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 01:39	1
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L		04/19/23 14:40	04/22/23 01:39	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/19/23 14:40	04/22/23 01:39	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 01:39	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/19/23 14:40	04/22/23 01:39	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/19/23 14:40	04/22/23 01:39	1
Indene	ND		9.6	0.96	ug/L		04/19/23 14:40	04/22/23 01:39	1
Isophorone	ND		9.6	0.13	ug/L		04/19/23 14:40	04/22/23 01:39	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/19/23 14:40	04/22/23 01:39	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/19/23 14:40	04/22/23 01:39	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/19/23 14:40	04/22/23 01:39	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/19/23 14:40	04/22/23 01:39	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/19/23 14:40	04/22/23 01:39	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/19/23 14:40	04/22/23 01:39	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/19/23 14:40	04/22/23 01:39	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/19/23 14:40	04/22/23 01:39	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		04/19/23 14:40	04/22/23 01:39	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: ROST4PZC-ROX-041723
Date Collected: 04/17/23 09:55
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/19/23 14:40	04/22/23 01:39	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/19/23 14:40	04/22/23 01:39	1
Pentachlorophenol	ND		19	1.3	ug/L		04/19/23 14:40	04/22/23 01:39	1
Phenol	ND		9.6	2.5	ug/L		04/19/23 14:40	04/22/23 01:39	1
Pyridine	ND		9.6	3.1	ug/L		04/19/23 14:40	04/22/23 01:39	1
Quinoline	ND		9.6	4.3	ug/L		04/19/23 14:40	04/22/23 01:39	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		04/19/23 14:40	04/22/23 01:39	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		04/19/23 14:40	04/22/23 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*04/19/23 14:40*	*04/22/23 01:39*	*1*
2-Fluorophenol	*74*		*13 - 113*	*04/19/23 14:40*	*04/22/23 01:39*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/19/23 14:40*	*04/22/23 01:39*	*1*
Phenol-d5	*79*		*17 - 127*	*04/19/23 14:40*	*04/22/23 01:39*	*1*
Terphenyl-d14	*71*		*44 - 149*	*04/19/23 14:40*	*04/22/23 01:39*	*1*
2,4,6-Tribromophenol	*98*		*26 - 150*	*04/19/23 14:40*	*04/22/23 01:39*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/24/23 13:58	04/25/23 00:13	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/25/23 00:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*121*		*51 - 149*	*04/24/23 13:58*	*04/25/23 00:13*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: MW3-ROX-041723
Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 18:43	1
Acrolein	ND		20	3.3	ug/L			04/29/23 18:43	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 18:43	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 18:43	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 18:43	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 18:43	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 18:43	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 18:43	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 18:43	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 18:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 18:43	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 18:43	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 18:43	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 18:43	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 18:43	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 18:43	1
Chloroform	ND	UJ	1.0	1.0	ug/L			04/29/23 18:43	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 18:43	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 18:43	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 18:43	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 18:43	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 18:43	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 18:43	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 18:43	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 18:43	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 18:43	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 18:43	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 18:43	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 18:43	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 18:43	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 18:43	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 18:43	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 18:43	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 18:43	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 18:43	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 18:43	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 18:43	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 18:43	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 18:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 18:43	1
Methyl tert-butyl ether	**0.64**	**J**	1.0	0.22	ug/L			04/29/23 18:43	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 18:43	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 18:43	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 18:43	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 18:43	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 18:43	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 18:43	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 18:43	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 18:43	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: MW3-ROX-041723
Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 18:43	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 18:43	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 18:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 18:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 18:43	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 18:43	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 18:43	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 18:43	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 18:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 18:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 18:43	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 18:43	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 18:43	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 18:43	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 18:43	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 18:43	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 18:43	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 18:43	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 18:43	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 18:43	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 18:43*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/29/23 18:43*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 18:43*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 20:46	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/19/23 14:40	04/21/23 20:46	1
Anthracene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 20:46	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/19/23 14:40	04/21/23 20:46	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/19/23 14:40	04/21/23 20:46	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/19/23 14:40	04/21/23 20:46	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/19/23 14:40	04/21/23 20:46	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/19/23 14:40	04/21/23 20:46	1
Chrysene	ND		0.19	0.072	ug/L		04/19/23 14:40	04/21/23 20:46	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/19/23 14:40	04/21/23 20:46	1
Fluoranthene	ND		0.19	0.066	ug/L		04/19/23 14:40	04/21/23 20:46	1
Fluorene	ND		0.19	0.11	ug/L		04/19/23 14:40	04/21/23 20:46	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/19/23 14:40	04/21/23 20:46	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/19/23 14:40	04/21/23 20:46	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/19/23 14:40	04/21/23 20:46	1
Phenanthrene	ND		0.19	0.035	ug/L		04/19/23 14:40	04/21/23 20:46	1
Pyrene	ND		0.19	0.039	ug/L		04/19/23 14:40	04/21/23 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*141*	*S1+*	*15 - 122*	*04/19/23 14:40*	*04/21/23 20:46*	*1*
Nitrobenzene-d5	*118*		*19 - 130*	*04/19/23 14:40*	*04/21/23 20:46*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: MW3-ROX-041723

Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-5

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*162*	*S1+*	*33 - 138*	*04/19/23 14:40*	*04/21/23 20:46*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/19/23 14:40	04/22/23 02:00	1
Benzenethiol	ND	*- *1 UJ	9.7	1.7	ug/L		04/19/23 14:40	04/22/23 02:00	1
Benzoic acid	ND		29	7.1	ug/L		04/19/23 14:40	04/22/23 02:00	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 02:00	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 02:00	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/19/23 14:40	04/22/23 02:00	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/19/23 14:40	04/22/23 02:00	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/19/23 14:40	04/22/23 02:00	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/19/23 14:40	04/22/23 02:00	1
Butyl benzyl phthalate	ND		9.7	0.19	ug/L		04/19/23 14:40	04/22/23 02:00	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/19/23 14:40	04/22/23 02:00	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/19/23 14:40	04/22/23 02:00	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/19/23 14:40	04/22/23 02:00	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/19/23 14:40	04/22/23 02:00	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 02:00	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 02:00	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/19/23 14:40	04/22/23 02:00	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/19/23 14:40	04/22/23 02:00	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/19/23 14:40	04/22/23 02:00	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/19/23 14:40	04/22/23 02:00	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 02:00	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/19/23 14:40	04/22/23 02:00	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/19/23 14:40	04/22/23 02:00	1
4,6-Dinitro-ortho-cresol	ND	*-	9.7	1.6	ug/L		04/19/23 14:40	04/22/23 02:00	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/22/23 02:00	1
2,4-Dinitrotoluene	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 02:00	1
2,6-Dinitrotoluene	ND		9.7	1.9	ug/L		04/19/23 14:40	04/22/23 02:00	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/19/23 14:40	04/22/23 02:00	1
1,4-Dioxane	ND	UJ	9.7	0.97	ug/L		04/19/23 14:40	04/22/23 02:00	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 02:00	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/19/23 14:40	04/22/23 02:00	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/19/23 14:40	04/22/23 02:00	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/19/23 14:40	04/22/23 02:00	1
Indene	ND		9.7	0.97	ug/L		04/19/23 14:40	04/22/23 02:00	1
Isophorone	ND		9.7	0.14	ug/L		04/19/23 14:40	04/22/23 02:00	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/19/23 14:40	04/22/23 02:00	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/19/23 14:40	04/22/23 02:00	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/19/23 14:40	04/22/23 02:00	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/19/23 14:40	04/22/23 02:00	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/19/23 14:40	04/22/23 02:00	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/19/23 14:40	04/22/23 02:00	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/19/23 14:40	04/22/23 02:00	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/19/23 14:40	04/22/23 02:00	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 02:00	1

Client Sample ID: MW3-ROX-041723
Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/19/23 14:40	04/22/23 02:00	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/19/23 14:40	04/22/23 02:00	1
Pentachlorophenol	ND		19	1.4	ug/L		04/19/23 14:40	04/22/23 02:00	1
Phenol	ND		9.7	2.5	ug/L		04/19/23 14:40	04/22/23 02:00	1
Pyridine	ND		9.7	3.1	ug/L		04/19/23 14:40	04/22/23 02:00	1
Quinoline	ND		9.7	4.4	ug/L		04/19/23 14:40	04/22/23 02:00	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/19/23 14:40	04/22/23 02:00	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/19/23 14:40	04/22/23 02:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*04/19/23 14:40*	*04/22/23 02:00*	*1*
2-Fluorophenol	*40*		*13 - 113*	*04/19/23 14:40*	*04/22/23 02:00*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/19/23 14:40*	*04/22/23 02:00*	*1*
Phenol-d5	*59*		*17 - 127*	*04/19/23 14:40*	*04/22/23 02:00*	*1*
Terphenyl-d14	*83*		*44 - 149*	*04/19/23 14:40*	*04/22/23 02:00*	*1*
2,4,6-Tribromophenol	*80*		*26 - 150*	*04/19/23 14:40*	*04/22/23 02:00*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.017	ug/L		04/24/23 13:58	04/25/23 00:33	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/25/23 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/24/23 13:58*	*04/25/23 00:33*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: MW3-ROX-041723-DUP
Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 19:08	1
Acrolein	ND		20	3.3	ug/L			04/29/23 19:08	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 19:08	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 19:08	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 19:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 19:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 19:08	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 19:08	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 19:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 19:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 19:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 19:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 19:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 19:08	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 19:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 19:08	1
Chloroform	ND	UJ	1.0	1.0	ug/L			04/29/23 19:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 19:08	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 19:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 19:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 19:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 19:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 19:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 19:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 19:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 19:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 19:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 19:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 19:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 19:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 19:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 19:08	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 19:08	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 19:08	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 19:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 19:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 19:08	1
Methyl tert-butyl ether	**0.74**	**J**	1.0	0.22	ug/L			04/29/23 19:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 19:08	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 19:08	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 19:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 19:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 19:08	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 19:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 19:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 19:08	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: MW3-ROX-041723-DUP

Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-6

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 19:08	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 19:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 19:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 19:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 19:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 19:08	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 19:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 19:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 19:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 19:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 19:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 19:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 19:08	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 19:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 19:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 19:08	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 19:08	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 19:08	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 19:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 19:08	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/29/23 19:08*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/29/23 19:08*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 19:08*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 21:03	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/19/23 14:40	04/21/23 21:03	1
Anthracene	ND		0.19	0.031	ug/L		04/19/23 14:40	04/21/23 21:03	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/23 14:40	04/21/23 21:03	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/19/23 14:40	04/21/23 21:03	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/19/23 14:40	04/21/23 21:03	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/19/23 14:40	04/21/23 21:03	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/19/23 14:40	04/21/23 21:03	1
Chrysene	ND		0.19	0.071	ug/L		04/19/23 14:40	04/21/23 21:03	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/23 14:40	04/21/23 21:03	1
Fluoranthene	ND		0.19	0.065	ug/L		04/19/23 14:40	04/21/23 21:03	1
Fluorene	ND		0.19	0.11	ug/L		04/19/23 14:40	04/21/23 21:03	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/19/23 14:40	04/21/23 21:03	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/19/23 14:40	04/21/23 21:03	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/19/23 14:40	04/21/23 21:03	1
Phenanthrene	ND		0.19	0.035	ug/L		04/19/23 14:40	04/21/23 21:03	1
Pyrene	ND		0.19	0.038	ug/L		04/19/23 14:40	04/21/23 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*137*	*S1+*	*15 - 122*	*04/19/23 14:40*	*04/21/23 21:03*	*1*
Nitrobenzene-d5	*122*		*19 - 130*	*04/19/23 14:40*	*04/21/23 21:03*	*1*

Client Sample ID: MW3-ROX-041723-DUP
Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*169*	*S1+*	*33 - 138*	*04/19/23 14:40*	*04/21/23 21:03*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		04/19/23 14:40	04/22/23 02:20	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		04/19/23 14:40	04/22/23 02:20	1
Benzoic acid	ND		29	7.0	ug/L		04/19/23 14:40	04/22/23 02:20	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/19/23 14:40	04/22/23 02:20	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/19/23 14:40	04/22/23 02:20	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/19/23 14:40	04/22/23 02:20	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/19/23 14:40	04/22/23 02:20	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/19/23 14:40	04/22/23 02:20	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/19/23 14:40	04/22/23 02:20	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/19/23 14:40	04/22/23 02:20	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/19/23 14:40	04/22/23 02:20	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		04/19/23 14:40	04/22/23 02:20	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/19/23 14:40	04/22/23 02:20	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/19/23 14:40	04/22/23 02:20	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/19/23 14:40	04/22/23 02:20	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/19/23 14:40	04/22/23 02:20	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 02:20	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/19/23 14:40	04/22/23 02:20	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/19/23 14:40	04/22/23 02:20	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/19/23 14:40	04/22/23 02:20	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/19/23 14:40	04/22/23 02:20	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 02:20	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/19/23 14:40	04/22/23 02:20	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/19/23 14:40	04/22/23 02:20	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/22/23 02:20	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/19/23 14:40	04/22/23 02:20	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/19/23 14:40	04/22/23 02:20	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 02:20	1
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L		04/19/23 14:40	04/22/23 02:20	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/19/23 14:40	04/22/23 02:20	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/19/23 14:40	04/22/23 02:20	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/19/23 14:40	04/22/23 02:20	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/19/23 14:40	04/22/23 02:20	1
Indene	ND		9.6	0.96	ug/L		04/19/23 14:40	04/22/23 02:20	1
Isophorone	ND		9.6	0.13	ug/L		04/19/23 14:40	04/22/23 02:20	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/19/23 14:40	04/22/23 02:20	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/19/23 14:40	04/22/23 02:20	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/19/23 14:40	04/22/23 02:20	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/19/23 14:40	04/22/23 02:20	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/19/23 14:40	04/22/23 02:20	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/19/23 14:40	04/22/23 02:20	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/19/23 14:40	04/22/23 02:20	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/19/23 14:40	04/22/23 02:20	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/19/23 14:40	04/22/23 02:20	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: MW3-ROX-041723-DUP
Date Collected: 04/17/23 11:00
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/19/23 14:40	04/22/23 02:20	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/19/23 14:40	04/22/23 02:20	1
Pentachlorophenol	ND		19	1.3	ug/L		04/19/23 14:40	04/22/23 02:20	1
Phenol	ND		9.6	2.5	ug/L		04/19/23 14:40	04/22/23 02:20	1
Pyridine	ND		9.6	3.1	ug/L		04/19/23 14:40	04/22/23 02:20	1
Quinoline	ND		9.6	4.3	ug/L		04/19/23 14:40	04/22/23 02:20	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		04/19/23 14:40	04/22/23 02:20	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/19/23 14:40	04/22/23 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*04/19/23 14:40*	*04/22/23 02:20*	*1*
2-Fluorophenol	*48*		*13 - 113*	*04/19/23 14:40*	*04/22/23 02:20*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/19/23 14:40*	*04/22/23 02:20*	*1*
Phenol-d5	*69*		*17 - 127*	*04/19/23 14:40*	*04/22/23 02:20*	*1*
Terphenyl-d14	*83*		*44 - 149*	*04/19/23 14:40*	*04/22/23 02:20*	*1*
2,4,6-Tribromophenol	*88*		*26 - 150*	*04/19/23 14:40*	*04/22/23 02:20*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/25/23 15:00	04/26/23 10:52	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/25/23 15:00	04/26/23 10:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*51 - 149*	*04/25/23 15:00*	*04/26/23 10:52*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: P74-ROX-041723
Date Collected: 04/17/23 13:25
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**22**	**J**	25	10	ug/L			04/29/23 19:32	1
Acrolein	ND		20	3.3	ug/L			04/29/23 19:32	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 19:32	1
Benzene	**12**		1.0	0.13	ug/L			04/29/23 19:32	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 19:32	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 19:32	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 19:32	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 19:32	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 19:32	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 19:32	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 19:32	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 19:32	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 19:32	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 19:32	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 19:32	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 19:32	1
Chloroform	ND	UJ	1.0	1.0	ug/L			04/29/23 19:32	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 19:32	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 19:32	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 19:32	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 19:32	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 19:32	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 19:32	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 19:32	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 19:32	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 19:32	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 19:32	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 19:32	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:32	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:32	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:32	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 19:32	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 19:32	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 19:32	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 19:32	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 19:32	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 19:32	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 19:32	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 19:32	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 19:32	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 19:32	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 19:32	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 19:32	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 19:32	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 19:32	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 19:32	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 19:32	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 19:32	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 19:32	1

Client Sample ID: P74-ROX-041723
Date Collected: 04/17/23 13:25
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 19:32	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 19:32	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 19:32	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 19:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 19:32	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 19:32	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 19:32	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 19:32	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 19:32	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 19:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 19:32	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 19:32	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 19:32	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 19:32	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 19:32	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 19:32	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 19:32	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 19:32	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 19:32	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 19:32	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/29/23 19:32*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/29/23 19:32*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 19:32*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/19/23 14:40	04/21/23 21:21	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/19/23 14:40	04/21/23 21:21	1
Anthracene	ND		0.20	0.031	ug/L		04/19/23 14:40	04/21/23 21:21	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/19/23 14:40	04/21/23 21:21	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/19/23 14:40	04/21/23 21:21	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/19/23 14:40	04/21/23 21:21	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/19/23 14:40	04/21/23 21:21	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/19/23 14:40	04/21/23 21:21	1
Chrysene	ND		0.20	0.072	ug/L		04/19/23 14:40	04/21/23 21:21	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/19/23 14:40	04/21/23 21:21	1
Fluoranthene	ND		0.20	0.067	ug/L		04/19/23 14:40	04/21/23 21:21	1
Fluorene	ND		0.20	0.11	ug/L		04/19/23 14:40	04/21/23 21:21	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/19/23 14:40	04/21/23 21:21	1
1-Methylnaphthalene	ND		0.20	0.072	ug/L		04/19/23 14:40	04/21/23 21:21	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/19/23 14:40	04/21/23 21:21	1
Phenanthrene	ND		0.20	0.035	ug/L		04/19/23 14:40	04/21/23 21:21	1
Pyrene	ND		0.20	0.039	ug/L		04/19/23 14:40	04/21/23 21:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*147*	*S1+*	*15 - 122*	*04/19/23 14:40*	*04/21/23 21:21*	*1*
Nitrobenzene-d5	*132*	*S1+*	*19 - 130*	*04/19/23 14:40*	*04/21/23 21:21*	*1*

Client Sample ID: P74-ROX-041723
Date Collected: 04/17/23 13:25
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*174*	*S1+*	*33 - 138*	*04/19/23 14:40*	*04/21/23 21:21*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/19/23 14:40	04/22/23 02:41	1
Benzenethiol	ND	*- *1 UJ	9.8	1.7	ug/L		04/19/23 14:40	04/22/23 02:41	1
Benzoic acid	ND		29	7.1	ug/L		04/19/23 14:40	04/22/23 02:41	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/19/23 14:40	04/22/23 02:41	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/19/23 14:40	04/22/23 02:41	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/19/23 14:40	04/22/23 02:41	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/19/23 14:40	04/22/23 02:41	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/19/23 14:40	04/22/23 02:41	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/19/23 14:40	04/22/23 02:41	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/19/23 14:40	04/22/23 02:41	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/19/23 14:40	04/22/23 02:41	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/19/23 14:40	04/22/23 02:41	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/19/23 14:40	04/22/23 02:41	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/19/23 14:40	04/22/23 02:41	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/19/23 14:40	04/22/23 02:41	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 02:41	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 02:41	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		04/19/23 14:40	04/22/23 02:41	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/19/23 14:40	04/22/23 02:41	1
Diethyl phthalate	ND		9.8	0.23	ug/L		04/19/23 14:40	04/22/23 02:41	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 02:41	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 02:41	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/19/23 14:40	04/22/23 02:41	1
4,6-Dinitro-ortho-cresol	ND	*-	9.8	1.6	ug/L		04/19/23 14:40	04/22/23 02:41	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/23 14:40	04/22/23 02:41	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/22/23 02:41	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/19/23 14:40	04/22/23 02:41	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 02:41	1
1,4-Dioxane	ND	UJ	9.8	0.98	ug/L		04/19/23 14:40	04/22/23 02:41	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 02:41	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/19/23 14:40	04/22/23 02:41	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		04/19/23 14:40	04/22/23 02:41	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/19/23 14:40	04/22/23 02:41	1
Indene	ND		9.8	0.98	ug/L		04/19/23 14:40	04/22/23 02:41	1
Isophorone	ND		9.8	0.14	ug/L		04/19/23 14:40	04/22/23 02:41	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/19/23 14:40	04/22/23 02:41	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/19/23 14:40	04/22/23 02:41	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/19/23 14:40	04/22/23 02:41	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/19/23 14:40	04/22/23 02:41	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/19/23 14:40	04/22/23 02:41	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/19/23 14:40	04/22/23 02:41	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/19/23 14:40	04/22/23 02:41	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/19/23 14:40	04/22/23 02:41	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 02:41	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: P74-ROX-041723
Date Collected: 04/17/23 13:25
Date Received: 04/19/23 09:16

Lab Sample ID: 400-236319-7
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/19/23 14:40	04/22/23 02:41	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/19/23 14:40	04/22/23 02:41	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/22/23 02:41	1
Phenol	ND		9.8	2.5	ug/L		04/19/23 14:40	04/22/23 02:41	1
Pyridine	ND		9.8	3.1	ug/L		04/19/23 14:40	04/22/23 02:41	1
Quinoline	ND		9.8	4.4	ug/L		04/19/23 14:40	04/22/23 02:41	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/19/23 14:40	04/22/23 02:41	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/19/23 14:40	04/22/23 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*04/19/23 14:40*	*04/22/23 02:41*	*1*
2-Fluorophenol	*43*		*13 - 113*	*04/19/23 14:40*	*04/22/23 02:41*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/19/23 14:40*	*04/22/23 02:41*	*1*
Phenol-d5	*67*		*17 - 127*	*04/19/23 14:40*	*04/22/23 02:41*	*1*
Terphenyl-d14	*83*		*44 - 149*	*04/19/23 14:40*	*04/22/23 02:41*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*04/19/23 14:40*	*04/22/23 02:41*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/25/23 15:00	04/26/23 11:12	1
1,2-D bromoethane	ND		0.019	0.014	ug/L		04/25/23 15:00	04/26/23 11:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*04/25/23 15:00*	*04/26/23 11:12*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-236319-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236319-1	TB-ROX-041723-8260	97	100	95
400-236319-3	ROST4PZC-ROX-041723-EB	98	97	95
400-236319-4	ROST4PZC-ROX-041723	97	99	95
400-236319-5	MW3-ROX-041723	98	99	95
400-236319-6	MW3-ROX-041723-DUP	97	98	95
400-236319-7	P74-ROX-041723	97	97	95
LCS 400-622811/1002	Lab Control Sample	96	96	97
MB 400-622811/4	Method Blank	97	97	96

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236319-3	ROST4PZC-ROX-041723-EB	84	55	79	74	84	85
400-236319-4	ROST4PZC-ROX-041723	78	74	76	79	71	98
400-236319-5	MW3-ROX-041723	80	40	75	59	83	80
400-236319-6	MW3-ROX-041723-DUP	80	48	76	69	83	88
400-236319-7	P74-ROX-041723	84	43	79	67	83	77
LCS 400-621528/2-A	Lab Control Sample	81	72	83	84	82	99
LCS 400-621528/5-A	Lab Control Sample	83	71	78	84	81	74
LCSD 400-621528/6-A	Lab Control Sample Dup	86	70	82	84	84	74
MB 400-621528/1-A	Method Blank	82	49	75	71	78	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236319-3	ROST4PZC-ROX-041723-EB	146 S1+	129	175 S1+
400-236319-4	ROST4PZC-ROX-041723	112	107	120
400-236319-5	MW3-ROX-041723	141 S1+	118	162 S1+
400-236319-6	MW3-ROX-041723-DUP	137 S1+	122	169 S1+
400-236319-7	P74-ROX-041723	147 S1+	132 S1+	174 S1+
LCS 400-621528/2-A	Lab Control Sample	88	85	101
MB 400-621528/1-A	Method Blank	109	99	135

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	**Client Sample ID**	**BFB2 (51-149)**
400-236319-2	TB-ROX-041723-8011	99
400-236319-3	ROST4PZC-ROX-041723-EB	113
400-236319-4	ROST4PZC-ROX-041723	121
400-236319-5	MW3-ROX-041723	112
LCS 400-622064/2-A	Lab Control Sample	89
LCSD 400-622064/3-A	Lab Control Sample Dup	97
MB 400-622064/1-A	Method Blank	74

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	**Client Sample ID**	**BFB1 (51-149)**
400-236319-6	MW3-ROX-041723-DUP	114
400-236319-7	P74-ROX-041723	118
LCS 400-622241/2-A	Lab Control Sample	108
LCSD 400-622241/3-A	Lab Control Sample Dup	110
MB 400-622241/1-A	Method Blank	113

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: TB-ROX-041723-8260
Lab Sample ID: 400-236319-1
Date Collected: 04/17/23 12:00
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 14:37	AGW	EET PEN

Client Sample ID: TB-ROX-041723-8011
Lab Sample ID: 400-236319-2
Date Collected: 04/17/23 12:00
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 23:11	PG	EET PEN

Client Sample ID: ROST4PZC-ROX-041723-EB
Lab Sample ID: 400-236319-3
Date Collected: 04/17/23 08:00
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 15:01	AGW	EET PEN
Total/NA	Prep	3520C			258.2 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 01:19	PP1	EET PEN
Total/NA	Prep	3520C			258.2 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621812	04/21/23 20:11	PP1	EET PEN
Total/NA	Prep	8011			36.2 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 23:52	PG	EET PEN

Client Sample ID: ROST4PZC-ROX-041723
Lab Sample ID: 400-236319-4
Date Collected: 04/17/23 09:55
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 18:18	AGW	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 01:39	PP1	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 18:43	PP1	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/25/23 00:13	PG	EET PEN

Client Sample ID: MW3-ROX-041723
Lab Sample ID: 400-236319-5
Date Collected: 04/17/23 11:00
Matrix: Water
Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 18:43	AGW	EET PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 02:00	PP1	EET PEN

Client Sample ID: MW3-ROX-041723

Lab Sample ID: 400-236319-5

Date Collected: 04/17/23 11:00

Matrix: Water

Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			256.6 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621812	04/21/23 20:46	PP1	EET PEN
Total/NA	Prep	8011			35.6 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/25/23 00:33	PG	EET PEN

Client Sample ID: MW3-ROX-041723-DUP

Lab Sample ID: 400-236319-6

Date Collected: 04/17/23 11:00

Matrix: Water

Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 19:08	AGW	EET PEN
Total/NA	Prep	3520C			260.8 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 02:20	PP1	EET PEN
Total/NA	Prep	3520C			260.8 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621812	04/21/23 21:03	PP1	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 10:52	PG	EET PEN

Client Sample ID: P74-ROX-041723

Lab Sample ID: 400-236319-7

Date Collected: 04/17/23 13:25

Matrix: Water

Date Received: 04/19/23 09:16

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 19:32	AGW	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/22/23 02:41	PP1	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	621812	04/21/23 21:21	PP1	EET PEN
Total/NA	Prep	8011			36.3 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 11:12	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621528/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 19:48	PP1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622050	04/24/23 16:59	PP1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622064/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 16:23	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622241/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 09:50	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622811/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 12:09	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621528/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:50	PP1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622050	04/24/23 17:17	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621528/5-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:09	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622064/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 16:44	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236319-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622241/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 10:10	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622811/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 11:11	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621528/6-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621528	04/19/23 14:40	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	621820	04/21/23 20:30	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622064/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622064	04/24/23 13:58	PG	EET PEN
Total/NA	Analysis	8011		1			622077	04/24/23 17:04	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622241/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 10:31	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-1	TB-ROX-041723-8260	Total/NA	Water	8260B	
400-236319-3	ROST4PZC-ROX-041723-EB	Total/NA	Water	8260B	
400-236319-4	ROST4PZC-ROX-041723	Total/NA	Water	8260B	
400-236319-5	MW3-ROX-041723	Total/NA	Water	8260B	
400-236319-6	MW3-ROX-041723-DUP	Total/NA	Water	8260B	
400-236319-7	P74-ROX-041723	Total/NA	Water	8260B	
MB 400-622811/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622811/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-3	ROST4PZC-ROX-041723-EB	Total/NA	Water	3520C	
400-236319-4	ROST4PZC-ROX-041723	Total/NA	Water	3520C	
400-236319-5	MW3-ROX-041723	Total/NA	Water	3520C	
400-236319-6	MW3-ROX-041723-DUP	Total/NA	Water	3520C	
400-236319-7	P74-ROX-041723	Total/NA	Water	3520C	
MB 400-621528/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621528/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621528/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 621812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-3	ROST4PZC-ROX-041723-EB	Total/NA	Water	8270D LL	621528
400-236319-5	MW3-ROX-041723	Total/NA	Water	8270D LL	621528
400-236319-6	MW3-ROX-041723-DUP	Total/NA	Water	8270D LL	621528
400-236319-7	P74-ROX-041723	Total/NA	Water	8270D LL	621528

Analysis Batch: 621820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-3	ROST4PZC-ROX-041723-EB	Total/NA	Water	8270D	621528
400-236319-4	ROST4PZC-ROX-041723	Total/NA	Water	8270D	621528
400-236319-5	MW3-ROX-041723	Total/NA	Water	8270D	621528
400-236319-6	MW3-ROX-041723-DUP	Total/NA	Water	8270D	621528
400-236319-7	P74-ROX-041723	Total/NA	Water	8270D	621528
MB 400-621528/1-A	Method Blank	Total/NA	Water	8270D	621528
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	8270D	621528
LCS 400-621528/5-A	Lab Control Sample	Total/NA	Water	8270D	621528
LCSD 400-621528/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	621528

Analysis Batch: 622050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-4	ROST4PZC-ROX-041723	Total/NA	Water	8270D LL	621528
MB 400-621528/1-A	Method Blank	Total/NA	Water	8270D LL	621528
LCS 400-621528/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621528

GC Semi VOA

Prep Batch: 622064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-2	TB-ROX-041723-8011	Total/NA	Water	8011	
400-236319-3	ROST4PZC-ROX-041723-EB	Total/NA	Water	8011	
400-236319-4	ROST4PZC-ROX-041723	Total/NA	Water	8011	
400-236319-5	MW3-ROX-041723	Total/NA	Water	8011	
MB 400-622064/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622064/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622064/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-2	TB-ROX-041723-8011	Total/NA	Water	8011	622064
400-236319-3	ROST4PZC-ROX-041723-EB	Total/NA	Water	8011	622064
400-236319-4	ROST4PZC-ROX-041723	Total/NA	Water	8011	622064
400-236319-5	MW3-ROX-041723	Total/NA	Water	8011	622064
MB 400-622064/1-A	Method Blank	Total/NA	Water	8011	622064
LCS 400-622064/2-A	Lab Control Sample	Total/NA	Water	8011	622064
LCSD 400-622064/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622064

Prep Batch: 622241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-6	MW3-ROX-041723-DUP	Total/NA	Water	8011	
400-236319-7	P74-ROX-041723	Total/NA	Water	8011	
MB 400-622241/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622241/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622241/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236319-6	MW3-ROX-041723-DUP	Total/NA	Water	8011	622241
400-236319-7	P74-ROX-041723	Total/NA	Water	8011	622241
MB 400-622241/1-A	Method Blank	Total/NA	Water	8011	622241
LCS 400-622241/2-A	Lab Control Sample	Total/NA	Water	8011	622241
LCSD 400-622241/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622241

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622811/4
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 12:09	1
Acrolein	ND		20	3.3	ug/L			04/29/23 12:09	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 12:09	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 12:09	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 12:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 12:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 12:09	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 12:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 12:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 12:09	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 12:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 12:09	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 12:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 12:09	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 12:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 12:09	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 12:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 12:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 12:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 12:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 12:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 12:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 12:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 12:09	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 12:09	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 12:09	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 12:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 12:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 12:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 12:09	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 12:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 12:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 12:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 12:09	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 12:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 12:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622811/4
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 12:09	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 12:09	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 12:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 12:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 12:09	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 12:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 12:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 12:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 12:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 12:09	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 12:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 12:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 12:09	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 12:09	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 12:09	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 12:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/29/23 12:09*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/29/23 12:09*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/29/23 12:09*	*1*

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	158		ug/L		79	43 - 160
Acrolein	500	472		ug/L		94	38 - 160
Acrylonitrile	500	418		ug/L		84	64 - 142
Benzene	50.0	42.4		ug/L		85	70 - 130
Bromobenzene	50.0	42.3		ug/L		85	70 - 132
Bromochloromethane	50.0	44.7		ug/L		89	70 - 130
Bromodichloromethane	50.0	39.7		ug/L		79	67 - 133
Bromoform	50.0	42.1		ug/L		84	57 - 140
Bromomethane	50.0	41.9		ug/L		84	10 - 160
2-Butanone (MEK)	200	163		ug/L		82	61 - 145
Carbon disulfide	50.0	43.2		ug/L		86	61 - 137
Carbon tetrachloride	50.0	38.2		ug/L		76	61 - 137
Chlorobenzene	50.0	42.2		ug/L		84	70 - 130
Dibromochloromethane	50.0	41.3		ug/L		83	67 - 135
Chloroethane	50.0	39.2		ug/L		78	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	49.8		ug/L		100	10 - 160
Chloroform	50.0	38.6		ug/L		77	69 - 130
1-Chlorohexane	50.0	37.2		ug/L		74	69 - 130
Chloromethane	50.0	39.8		ug/L		80	58 - 137
cis-1,2-Dichloroethene	50.0	38.4		ug/L		77	68 - 130
cis-1,3-Dichloropropene	50.0	42.9		ug/L		86	69 - 132
1,2-Dichlorobenzene	50.0	44.1		ug/L		88	67 - 130
1,3-Dichlorobenzene	50.0	44.1		ug/L		88	70 - 130
1,4-Dichlorobenzene	50.0	44.9		ug/L		90	70 - 130
Dichlorodifluoromethane	50.0	36.1		ug/L		72	41 - 146
1,1-Dichloroethane	50.0	40.1		ug/L		80	70 - 130
1,2-Dichloroethane	50.0	36.3		ug/L		73	69 - 130
1,1-Dichloroethene	50.0	45.3		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	41.2		ug/L		82	70 - 130
1,3-Dichloropropane	50.0	42.3		ug/L		85	70 - 130
2,2-Dichloropropane	50.0	40.1		ug/L		80	52 - 135
1,1-Dichloropropene	50.0	40.4		ug/L		81	70 - 130
Ethylbenzene	50.0	40.1		ug/L		80	70 - 130
Ethyl methacrylate	50.0	41.4		ug/L		83	68 - 130
Hexachlorobutadiene	50.0	44.8		ug/L		90	53 - 140
2-Hexanone	200	152		ug/L		76	65 - 137
Isopropy benzene	50.0	40.3		ug/L		81	70 - 130
Methylene bromide	50.0	42.3		ug/L		85	70 - 130
Methylene Chloride	50.0	46.3		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	162		ug/L		81	69 - 138
Methyl tert-butyl ether	50.0	43.2		ug/L		86	66 - 130
m-Xylene & p-Xylene	50.0	40.1		ug/L		80	70 - 130
Naphthalene	50.0	57.7		ug/L		115	47 - 149
n-Butylbenzene	50.0	43.1		ug/L		86	67 - 130
N-Propylbenzene	50.0	41.6		ug/L		83	70 - 130
o-Chlorotoluene	50.0	39.6		ug/L		79	70 - 130
o-Xylene	50.0	40.0		ug/L		80	70 - 130
p-Chlorotoluene	50.0	40.8		ug/L		82	70 - 130
p-Isopropyltoluene	50.0	41.7		ug/L		83	65 - 130
sec-Butylbenzene	50.0	41.2		ug/L		82	66 - 130
Styrene	50.0	41.5		ug/L		83	70 - 130
tert-Butylbenzene	50.0	43.7		ug/L		87	64 - 139
1,1,1,2-Tetrachloroethane	50.0	41.5		ug/L		83	67 - 131
1,1,2,2-Tetrachloroethane	50.0	42.7		ug/L		85	70 - 131
Tetrachloroethene	50.0	41.4		ug/L		83	65 - 130
Toluene	50.0	41.1		ug/L		82	70 - 130
trans-1,2-Dichloroethene	50.0	42.4		ug/L		85	70 - 130
trans-1,3-Dichloropropene	50.0	40.7		ug/L		81	63 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/L		103	60 - 138
1,2,4-Trichlorobenzene	50.0	50.5		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	37.7		ug/L		75	68 - 130
1,1,2-Trichloroethane	50.0	41.0		ug/L		82	70 - 130
Trichloroethene	50.0	42.1		ug/L		84	70 - 130
Trichlorofluoromethane	50.0	41.3		ug/L		83	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	41.2		ug/L		82	70 - 130
1,2,4-Trimethy benzene	50.0	42.5		ug/L		85	70 - 130
1,3,5-Trimethy benzene	50.0	41.2		ug/L		82	69 - 130
Vinyl acetate	100	93.9		ug/L		94	26 - 160
Vinyl chloride	50.0	42.7		ug/L		85	59 - 136
Xylenes, Total	100	80.1		ug/L		80	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzenethiol	ND		10	1.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzoic acid	ND		30	7.3	ug/L		04/19/23 14:40	04/21/23 19:48	1
Benzyl alcohol	ND		10	2.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/19/23 14:40	04/21/23 19:48	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/19/23 14:40	04/21/23 19:48	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chloroaniline	ND		10	3.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Chlorophenol	ND		10	2.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dibenzofuran	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Diethyl phthalate	ND		10	0.24	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/19/23 14:40	04/21/23 19:48	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
1,4-Dioxane	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
Hexachloroethane	ND		10	4.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
Indene	ND		10	1.0	ug/L		04/19/23 14:40	04/21/23 19:48	1
Isophorone	ND		10	0.14	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Methylphenol	ND		10	1.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Nitroaniline	ND		10	2.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
3-Nitroaniline	ND		10	1.8	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Nitroaniline	ND		10	1.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
Nitrobenzene	ND		10	0.13	ug/L		04/19/23 14:40	04/21/23 19:48	1
2-Nitrophenol	ND		10	5.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
4-Nitrophenol	ND		10	2.1	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/19/23 14:40	04/21/23 19:48	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/19/23 14:40	04/21/23 19:48	1
Pentachlorophenol	ND		20	1.4	ug/L		04/19/23 14:40	04/21/23 19:48	1
Phenol	ND		10	2.6	ug/L		04/19/23 14:40	04/21/23 19:48	1
Pyridine	ND		10	3.2	ug/L		04/19/23 14:40	04/21/23 19:48	1
Quinoline	ND		10	4.5	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/19/23 14:40	04/21/23 19:48	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/19/23 14:40	04/21/23 19:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
2-Fluorophenol	*49*		*13 - 113*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Phenol-d5	*71*		*17 - 127*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
Terphenyl-d14	*78*		*44 - 149*	*04/19/23 14:40*	*04/21/23 19:48*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*04/19/23 14:40*	*04/21/23 19:48*	*1*

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	106		ug/L		88	21 - 120
Benzoic acid	554	441		ug/L		80	10 - 144
Benzyl alcohol	120	103		ug/L		86	28 - 120
Bis(2-chloroethoxy)methane	120	89.4		ug/L		74	47 - 120
Bis(2-chloroethyl)ether	120	94.5		ug/L		79	44 - 120
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121
Bis(2-ethylhexyl) phthalate	120	95.0		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	94.6		ug/L		79	54 - 122
Butyl benzyl phthalate	120	96.4		ug/L		80	54 - 133
4-Chloroaniline	120	86.0		ug/L		72	26 - 120
4-Chloro-3-methylphenol	120	107		ug/L		89	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	99.3		ug/L		83	52 - 121
2-Chlorophenol	120	95.5		ug/L		80	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	123		ug/L		103	31 - 150
Dibenzofuran	120	106		ug/L		88	56 - 122
3,3'-Dichlorobenzidine	160	199		ug/L		124	36 - 132
2,4-Dichlorophenol	120	101		ug/L		84	49 - 120
Diethyl phthalate	120	109		ug/L		91	50 - 137
2,4-Dimethylphenol	120	79.6		ug/L		66	48 - 120
Dimethyl phthalate	120	99.5		ug/L		83	57 - 124
Di-n-butyl phthalate	120	102		ug/L		85	58 - 126
4,6-Dinitro-ortho-cresol	240	215		ug/L		89	23 - 148
2,4-Dinitrophenol	240	246		ug/L		103	10 - 150
2,4-Dinitrotoluene	120	107		ug/L		89	54 - 142
2,6-Dinitrotoluene	120	102		ug/L		85	55 - 130
Di-n-octyl phthalate	120	92.3		ug/L		77	57 - 138
1,4-Dioxane	120	61.6		ug/L		51	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	95.8		ug/L		80	45 - 124
Hexachlorobenzene	120	105		ug/L		88	52 - 129
Hexachlorocyclopentadiene	120	76.0		ug/L		63	10 - 134
Hexachloroethane	120	94.5		ug/L		79	20 - 120
Indene	120	105		ug/L		88	49 - 120
Isophorone	120	91.3		ug/L		76	48 - 120
2-Methylphenol	120	103		ug/L		86	46 - 124
3 & 4 Methylphenol	120	104		ug/L		87	45 - 120
2-Nitroaniline	120	101		ug/L		84	51 - 145
3-Nitroaniline	120	126		ug/L		105	37 - 127
4-Nitroaniline	120	135		ug/L		113	36 - 137
Nitrobenzene	120	89.3		ug/L		74	45 - 120
2-Nitrophenol	120	97.1		ug/L		81	40 - 124
4-Nitrophenol	240	208		ug/L		87	23 - 146
N-Nitrosodimethylamine	120	98.3		ug/L		82	29 - 137
N-Nitrosodi-n-propylamine	120	104		ug/L		87	45 - 120
N-Nitrosodiphenylamine	119	88.3		ug/L		74	54 - 120
Pentachlorophenol	240	205		ug/L		85	31 - 130
Phenol	120	97.8		ug/L		81	11 - 120
Pyridine	240	164		ug/L		68	16 - 120
Quinoline	120	111		ug/L		93	49 - 130
2,4,5-Trichlorophenol	120	96.7		ug/L		81	51 - 136
2,4,6-Trichlorophenol	120	95.6		ug/L		80	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*72*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*84*		*17 - 127*
Terphenyl-d14	*82*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	99		26 - 150

Lab Sample ID: LCS 400-621528/5-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	4.70	J *-	ug/L		4	10 - 120		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	83		46 - 124
2-Fluorophenol	71		13 - 113
Nitrobenzene-d5	78		36 - 126
Phenol-d5	84		17 - 127
Terphenyl-d14	81		44 - 149
2,4,6-Tribromophenol	74		26 - 150

Lab Sample ID: LCSD 400-621528/6-A
Matrix: Water
Analysis Batch: 621820

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621528

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.22	J *- *1	ug/L		3	10 - 120	37	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	86		46 - 124
2-Fluorophenol	70		13 - 113
Nitrobenzene-d5	82		36 - 126
Phenol-d5	84		17 - 127
Terphenyl-d14	84		44 - 149
2,4,6-Tribromophenol	74		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/19/23 14:40	04/24/23 16:59	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/19/23 14:40	04/24/23 16:59	1
Anthracene	ND		0.20	0.032	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/19/23 14:40	04/24/23 16:59	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/19/23 14:40	04/24/23 16:59	1
Chrysene	ND		0.20	0.074	ug/L		04/19/23 14:40	04/24/23 16:59	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-621528/1-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621528

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/19/23 14:40	04/24/23 16:59	1
Fluoranthene	ND		0.20	0.068	ug/L		04/19/23 14:40	04/24/23 16:59	1
Fluorene	ND		0.20	0.11	ug/L		04/19/23 14:40	04/24/23 16:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/19/23 14:40	04/24/23 16:59	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/19/23 14:40	04/24/23 16:59	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/19/23 14:40	04/24/23 16:59	1
Phenanthrene	ND		0.20	0.036	ug/L		04/19/23 14:40	04/24/23 16:59	1
Pyrene	ND		0.20	0.040	ug/L		04/19/23 14:40	04/24/23 16:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*04/19/23 14:40*	*04/24/23 16:59*	*1*
Nitrobenzene-d5	*99*		*19 - 130*	*04/19/23 14:40*	*04/24/23 16:59*	*1*
Terphenyl-d14	*135*		*33 - 138*	*04/19/23 14:40*	*04/24/23 16:59*	*1*

Lab Sample ID: LCS 400-621528/2-A
Matrix: Water
Analysis Batch: 622050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621528

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	110		ug/L		92	41 - 120
Acenaphthylene	120	118		ug/L		98	44 - 120
Anthracene	120	130		ug/L		109	49 - 120
Benzo[a]anthracene	120	133		ug/L		111	61 - 135
Benzo[a]pyrene	120	132		ug/L		110	52 - 120
Benzo[b]fluoranthene	120	130		ug/L		109	53 - 134
Benzo[g,h,i]perylene	120	128		ug/L		107	47 - 133
Benzo[k]fluoranthene	120	121		ug/L		101	57 - 134
Chrysene	120	127		ug/L		106	55 - 122
Dibenz(a,h)anthracene	120	139		ug/L		116	48 - 146
Fluoranthene	120	129		ug/L		108	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	126		ug/L		105	43 - 142
1-Methylnaphthalene	120	98.4		ug/L		82	41 - 120
2-Methylnaphthalene	120	97.1		ug/L		81	32 - 124
Phenanthrene	120	121		ug/L		101	48 - 120
Pyrene	120	125		ug/L		104	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*
Nitrobenzene-d5	*85*		*19 - 130*
Terphenyl-d14	*101*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622064/1-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/24/23 13:58	04/24/23 16:23	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/24/23 13:58	04/24/23 16:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*04/24/23 13:58*	*04/24/23 16:23*	*1*

Lab Sample ID: LCS 400-622064/2-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622064

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.0901		ug/L		90	60 - 140		
1,2-D bromoethane			0.101	0.102		ug/L		101	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*51 - 149*

Lab Sample ID: LCSD 400-622064/3-A
Matrix: Water
Analysis Batch: 622077

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622064

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.0906		ug/L		90	60 - 140	1	30
1,2-D bromoethane			0.101	0.110		ug/L		109	60 - 140	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*51 - 149*

Lab Sample ID: MB 400-622241/1-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/25/23 15:00	04/26/23 09:50	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/25/23 15:00	04/26/23 09:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/25/23 15:00*	*04/26/23 09:50*	*1*

Lab Sample ID: LCS 400-622241/2-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622241

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.132		ug/L		131	60 - 140		
1,2-D bromoethane			0.101	0.119		ug/L		118	60 - 140		

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-622241/2-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622241

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	108		51 - 149

Lab Sample ID: LCSD 400-622241/3-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622241

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.128		ug/L		127	60 - 140	3	30
1,2-D bromoethane			0.101	0.118		ug/L		117	60 - 140	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	110		51 - 149

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/17/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell

SAMPLER NAME(S) (Print): J. Mayer, T. Jenkins

LAB USE ONLY

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 6.0 IR11

Container PID Readings or Laboratory Notes:

400-236319 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041723-8260	4/17/2023	0000	Water	2					2	X			
	TB-ROX-041723-8011	4/17/2023	0000	Water	2					2		X		
	ROST4PZC-ROX-041723-EB	4/17/2023	0800	Water	6			2		8	X	X	X	X
	ROST4PZC-ROX-041723	4/17/2023	0955	Water	6			2		8	X	X	X	X
	MW3-ROX-041723	4/17/2023	1100	Water	6			2		8	X	X	X	X
	MW3-ROX-041723-DUP	4/17/2023	1100	Water	6			2		8	X	X	X	X
	P74-ROX-041723	4/17/2023	1325	Water	6			2		8	X	X	X	X

4-17-23

Relinquished by: (Signature) JOE MAYER	Received by: (Signature) FEDEX: 5564 3932 9760	Date: 4/17/2023	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4.19.23	Time: 9:16

CUSTODY SEALS: 1599712, 1599713

Version: 13Oct22

Page 54 of 53

5/17/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-236319-1

Login Number: 236319 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Roberts, Alexis J

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	6.0°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236319-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236453-1-Rev. 1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/31/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041923-8260	P57-ROX-041923
TB-ROX-041923-8011	P58-ROX-041923

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 diethyl phthalate and dimethyl phthalate were detected in method blank MB 400-621966/1-A. SVOC, PAH and 1,2-dibromo-3-chloropropane LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC and PAH surrogate recoveries were outside criteria in several quality control samples. The continuing calibration verification (CCV) for chloroform was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on June 06, 2023, to include missing initial calibration verifications (ICVs) for method 8270D.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-621966/1-A	SVOCs	Diethyl phthalate	0.490 µg/L
MB 400-621966/1-A	SVOCs	Dimethyl phthalate	0.268 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS/LCSD 400-621966/4-A/5-A	SVOCs	Benzenethiol	**3/3**	6	10-120/30
LCS/LCSD 400-621966/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	131/**141**	7	36-132/30
LCS/LCSD 400-621966/2-A/3-A	PAHs	Anthracene	120/**121**	1	49-120/51
LCS/LCSD 400-622327/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**160/167**	5	60-140/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P57-ROX-041923	SVOCs	Benzenethiol	**UJ**
P58-ROX-041923	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-621966/1-A	SVOCs	2-Fluorobiphenyl	**10**	13-113
MB 400-621966/1-A	PAHs	2-Fluorobiphenyl	**130**	15-122
MB 400-621966/1-A	PAHs	Terphenyl-d14	**209**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Equipment blanks and method blanks are quality control samples and do not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

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

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for chloroform was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P58-ROX-041923	VOCs	Chloroform	**UJ**
P57-ROX-041923	VOCs	Chloroform	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 5/8/2023 3:26:24 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236453-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 19
Surrogate Summary 20
Method Summary 22
Chronicle 23
QC Association 27
QC Sample Results 29
Chain of Custody 41
Receipt Checklists 42
Certification Summary 43

Job ID: 400-236453-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236453-1

Receipt
The samples were received on 4/20/2023 12:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-622811 recovered outside acceptance criteria, low biased, for Chloroform. A reporting limit (RL) standard was analyzed, and the target analyte is detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: P58-ROX-041923 (400-236453-4). Elevated reporting limits (RLs) are provided.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041923-8260 (400-236453-1), P57-ROX-041923 (400-236453-3) and P58-ROX-041923 (400-236453-4). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The method blank for preparation batch 400-621966 and analytical batch 400-622209 contained Diethyl phthala and Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCSD an was not detected in the associated samples; therefore, the data have been reported.

Methods 8270D, 8270E: The continuing calibration verification (CCV) associated with batch 400-622209 recovered above the u control limit for 4-Nitrophenol and 2-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621966 and analytical batch 400-622209 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results ha been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrog compounds outside limits: (MB 400-621966/1-A). These results have been reported and qualified.

Method 8270D: The following sample was diluted to bring the concentration of target analytes within the calibration range: P58-ROX-041923 (400-236453-4). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622176 recovered outside control limits for the following analytes: Anthracene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Job ID: 400-236453-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-621966 and analytical batch 400-622176 was outside the upper control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622312 recovered above the upper contro limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-622241 and analytical batch 400-622312 were outside control limits for one or more analytes, see QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-622327 and analytical batch 400-622352 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622352 recovered above the upper contro limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236453-1	TB-ROX-041923-8260	Water	04/19/23 12:00	04/20/23 12:52
400-236453-2	TB-ROX-041923-8011	Water	04/19/23 12:00	04/20/23 12:52
400-236453-3	P57-ROX-041923	Water	04/19/23 09:45	04/20/23 12:52
400-236453-4	P58-ROX-041923	Water	04/19/23 10:45	04/20/23 12:52

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: TB-ROX-041923-8260 — Lab Sample ID: 400-236453-1

No Detections.

Client Sample ID: TB-ROX-041923-8011 — Lab Sample ID: 400-236453-2

No Detections.

Client Sample ID: P57-ROX-041923 — Lab Sample ID: 400-236453-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	270		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	1.2		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	9.3		1.0	0.53	ug/L	1		8260B	Total/NA
Naphthalene	26		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	0.88	J	1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	10		1.0	0.69	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.7		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	2.1		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	2.3		1.0	0.41	ug/L	1		8260B	Total/NA
Acenaphthene	0.19	J	0.20	0.032	ug/L	1		8270D LL	Total/NA
Fluorene	0.71		0.20	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	34		0.20	0.073	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	29		0.20	0.059	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.45		0.20	0.036	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.48	J	9.9	0.17	ug/L	1		8270D	Total/NA
Phenol	6.9	J	9.9	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: P58-ROX-041923 — Lab Sample ID: 400-236453-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	150000		1000	130	ug/L	1000		8260B	Total/NA
Benzo[a]anthracene	0.40		0.20	0.045	ug/L	1		8270D LL	Total/NA
Chrysene	0.60		0.20	0.073	ug/L	1		8270D LL	Total/NA
Fluorene	1.9		0.20	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	93		0.20	0.073	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	45		0.20	0.059	ug/L	1		8270D LL	Total/NA
Phenanthrene	1.8		0.20	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.76		0.20	0.039	ug/L	1		8270D LL	Total/NA
Dibenzofuran	1.8	J	9.8	0.17	ug/L	1		8270D	Total/NA
Phenol - DL	720		98	25	ug/L	10		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: TB-ROX-041923-8260
Date Collected: 04/19/23 12:00
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 15:26	1
Acrolein	ND		20	3.3	ug/L			04/29/23 15:26	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 15:26	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 15:26	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 15:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 15:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 15:26	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 15:26	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 15:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 15:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 15:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 15:26	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 15:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 15:26	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 15:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 15:26	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 15:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 15:26	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 15:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 15:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 15:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 15:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 15:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 15:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 15:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 15:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 15:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 15:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 15:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 15:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 15:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 15:26	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 15:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 15:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 15:26	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 15:26	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 15:26	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 15:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 15:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 15:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 15:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 15:26	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 15:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 15:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 15:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 15:26	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 15:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 15:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 15:26	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: TB-ROX-041923-8260
Date Collected: 04/19/23 12:00
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 15:26	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 15:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 15:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 15:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 15:26	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 15:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 15:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 15:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 15:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 15:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 15:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 15:26	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 15:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 15:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 15:26	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 15:26	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 15:26	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 15:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 15:26	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 15:26*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*04/29/23 15:26*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/29/23 15:26*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: TB-ROX-041923-8011
Date Collected: 04/19/23 12:00
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/25/23 15:00	04/26/23 18:26	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/25/23 15:00	04/26/23 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*124*		*51 - 149*	*04/25/23 15:00*	*04/26/23 18:26*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: P57-ROX-041923
Date Collected: 04/19/23 09:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 19:57	1
Acrolein	ND		20	3.3	ug/L			04/29/23 19:57	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 19:57	1
Benzene	**270**		1.0	0.13	ug/L			04/29/23 19:57	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 19:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 19:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 19:57	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 19:57	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 19:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 19:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 19:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 19:57	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 19:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 19:57	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 19:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 19:57	1
Chloroform	ND	UJ	1.0	1.0	ug/L			04/29/23 19:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 19:57	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 19:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 19:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 19:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 19:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 19:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 19:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 19:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 19:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 19:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 19:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 19:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 19:57	1
Ethylbenzene	**1.2**		1.0	0.50	ug/L			04/29/23 19:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 19:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 19:57	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 19:57	1
Isopropylbenzene	**9.3**		1.0	0.53	ug/L			04/29/23 19:57	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 19:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 19:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 19:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 19:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 19:57	1
Naphthalene	**26**		5.0	3.0	ug/L			04/29/23 19:57	1
n-Butylbenzene	**0.88**	J	1.0	0.76	ug/L			04/29/23 19:57	1
N-Propylbenzene	**10**		1.0	0.69	ug/L			04/29/23 19:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 19:57	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 19:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 19:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 19:57	1

Client Sample ID: P57-ROX-041923
Date Collected: 04/19/23 09:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**1.7**		1.0	0.70	ug/L			04/29/23 19:57	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 19:57	1
tert-Butylbenzene	**2.1**		1.0	0.63	ug/L			04/29/23 19:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 19:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 19:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 19:57	1
Toluene	**2.3**		1.0	0.41	ug/L			04/29/23 19:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 19:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 19:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 19:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 19:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 19:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 19:57	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 19:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 19:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 19:57	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 19:57	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 19:57	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 19:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 19:57	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 19:57*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/29/23 19:57*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 19:57*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.19**	**J**	0.20	0.032	ug/L		04/24/23 08:27	04/25/23 16:09	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/24/23 08:27	04/25/23 16:09	1
Anthracene	ND	*+	0.20	0.032	ug/L		04/24/23 08:27	04/25/23 16:09	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 16:09	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/24/23 08:27	04/25/23 16:09	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 16:09	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 16:09	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/24/23 08:27	04/25/23 16:09	1
Chrysene	ND		0.20	0.073	ug/L		04/24/23 08:27	04/25/23 16:09	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/24/23 08:27	04/25/23 16:09	1
Fluoranthene	ND		0.20	0.067	ug/L		04/24/23 08:27	04/25/23 16:09	1
Fluorene	**0.71**		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 16:09	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 16:09	1
1-Methylnaphthalene	**34**		0.20	0.073	ug/L		04/24/23 08:27	04/25/23 16:09	1
2-Methylnaphthalene	**29**		0.20	0.059	ug/L		04/24/23 08:27	04/25/23 16:09	1
Phenanthrene	**0.45**		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 16:09	1
Pyrene	ND		0.20	0.039	ug/L		04/24/23 08:27	04/25/23 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*120*		*15 - 122*	*04/24/23 08:27*	*04/25/23 16:09*	*1*
Nitrobenzene-d5	*126*		*19 - 130*	*04/24/23 08:27*	*04/25/23 16:09*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: P57-ROX-041923
Date Collected: 04/19/23 09:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	92		33 - 138	04/24/23 08:27	04/25/23 16:09	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/24/23 08:27	04/25/23 17:54	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/24/23 08:27	04/25/23 17:54	1
Benzoic acid	ND		30	7.2	ug/L		04/24/23 08:27	04/25/23 17:54	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/24/23 08:27	04/25/23 17:54	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/24/23 08:27	04/25/23 17:54	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/24/23 08:27	04/25/23 17:54	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/24/23 08:27	04/25/23 17:54	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/24/23 08:27	04/25/23 17:54	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/24/23 08:27	04/25/23 17:54	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/24/23 08:27	04/25/23 17:54	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/24/23 08:27	04/25/23 17:54	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/24/23 08:27	04/25/23 17:54	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/24/23 08:27	04/25/23 17:54	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/24/23 08:27	04/25/23 17:54	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/24/23 08:27	04/25/23 17:54	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 17:54	1
Dibenzofuran	**0.48**	**J**	9.9	0.17	ug/L		04/24/23 08:27	04/25/23 17:54	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		04/24/23 08:27	04/25/23 17:54	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/24/23 08:27	04/25/23 17:54	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/24/23 08:27	04/25/23 17:54	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/24/23 08:27	04/25/23 17:54	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/24/23 08:27	04/25/23 17:54	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/24/23 08:27	04/25/23 17:54	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/24/23 08:27	04/25/23 17:54	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 17:54	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/24/23 08:27	04/25/23 17:54	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/24/23 08:27	04/25/23 17:54	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/24/23 08:27	04/25/23 17:54	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 17:54	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 17:54	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/24/23 08:27	04/25/23 17:54	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 17:54	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/24/23 08:27	04/25/23 17:54	1
Indene	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 17:54	1
Isophorone	ND		9.9	0.14	ug/L		04/24/23 08:27	04/25/23 17:54	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/24/23 08:27	04/25/23 17:54	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/24/23 08:27	04/25/23 17:54	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/24/23 08:27	04/25/23 17:54	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/24/23 08:27	04/25/23 17:54	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/24/23 08:27	04/25/23 17:54	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/24/23 08:27	04/25/23 17:54	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/24/23 08:27	04/25/23 17:54	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/24/23 08:27	04/25/23 17:54	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/24/23 08:27	04/25/23 17:54	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: P57-ROX-041923
Date Collected: 04/19/23 09:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/24/23 08:27	04/25/23 17:54	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/24/23 08:27	04/25/23 17:54	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 17:54	1
Phenol	**6.9**	**J**	9.9	2.6	ug/L		04/24/23 08:27	04/25/23 17:54	1
Pyridine	ND		9.9	3.2	ug/L		04/24/23 08:27	04/25/23 17:54	1
Quinoline	ND		9.9	4.4	ug/L		04/24/23 08:27	04/25/23 17:54	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/24/23 08:27	04/25/23 17:54	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/24/23 08:27	04/25/23 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*04/24/23 08:27*	*04/25/23 17:54*	*1*
2-Fluorophenol	*28*		*13 - 113*	*04/24/23 08:27*	*04/25/23 17:54*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/24/23 08:27*	*04/25/23 17:54*	*1*
Phenol-d5	*60*		*17 - 127*	*04/24/23 08:27*	*04/25/23 17:54*	*1*
Terphenyl-d14	*52*		*44 - 149*	*04/24/23 08:27*	*04/25/23 17:54*	*1*
2,4,6-Tribromophenol	*75*		*26 - 150*	*04/24/23 08:27*	*04/25/23 17:54*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.029	0.016	ug/L		04/25/23 15:00	04/26/23 18:47	1
1,2-D bromoethane	ND		0.019	0.015	ug/L		04/25/23 15:00	04/26/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*123*		*51 - 149*	*04/25/23 15:00*	*04/26/23 18:47*	*1*

Client Sample ID: P58-ROX-041923
Date Collected: 04/19/23 10:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25000	10000	ug/L			04/29/23 12:58	1000
Acrolein	ND		20000	3300	ug/L			04/29/23 12:58	1000
Acrylonitrile	ND		10000	2800	ug/L			04/29/23 12:58	1000
Benzene	**150000**		1000	130	ug/L			04/29/23 12:58	1000
Bromobenzene	ND		1000	540	ug/L			04/29/23 12:58	1000
Bromochloromethane	ND		1000	210	ug/L			04/29/23 12:58	1000
Bromodichloromethane	ND		1000	500	ug/L			04/29/23 12:58	1000
Bromoform	ND		5000	250	ug/L			04/29/23 12:58	1000
Bromomethane	ND		1000	980	ug/L			04/29/23 12:58	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			04/29/23 12:58	1000
Carbon disulfide	ND		1000	500	ug/L			04/29/23 12:58	1000
Carbon tetrachloride	ND		1000	190	ug/L			04/29/23 12:58	1000
Chlorobenzene	ND		1000	150	ug/L			04/29/23 12:58	1000
Dibromochloromethane	ND		1000	240	ug/L			04/29/23 12:58	1000
Chloroethane	ND		1000	760	ug/L			04/29/23 12:58	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			04/29/23 12:58	1000
Chloroform	ND	UJ	1000	1000	ug/L			04/29/23 12:58	1000
1-Chlorohexane	ND		1000	320	ug/L			04/29/23 12:58	1000
Chloromethane	ND		1000	320	ug/L			04/29/23 12:58	1000
cis-1,2-Dichloroethene	ND		1000	200	ug/L			04/29/23 12:58	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			04/29/23 12:58	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			04/29/23 12:58	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			04/29/23 12:58	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			04/29/23 12:58	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			04/29/23 12:58	1000
1,1-Dichloroethane	ND		1000	500	ug/L			04/29/23 12:58	1000
1,2-Dichloroethane	ND		1000	190	ug/L			04/29/23 12:58	1000
1,1-Dichloroethene	ND		1000	500	ug/L			04/29/23 12:58	1000
1,2-Dichloropropane	ND		1000	500	ug/L			04/29/23 12:58	1000
1,3-Dichloropropane	ND		1000	500	ug/L			04/29/23 12:58	1000
2,2-Dichloropropane	ND		1000	500	ug/L			04/29/23 12:58	1000
1,1-Dichloropropene	ND		1000	500	ug/L			04/29/23 12:58	1000
Ethylbenzene	ND		1000	500	ug/L			04/29/23 12:58	1000
Ethyl methacrylate	ND		1000	600	ug/L			04/29/23 12:58	1000
Hexachlorobutadiene	ND		5000	900	ug/L			04/29/23 12:58	1000
2-Hexanone	ND		25000	1400	ug/L			04/29/23 12:58	1000
Isopropy benzene	ND		1000	530	ug/L			04/29/23 12:58	1000
Methylene bromide	ND		5000	220	ug/L			04/29/23 12:58	1000
Methylene Chloride	ND		5000	3000	ug/L			04/29/23 12:58	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			04/29/23 12:58	1000
Methyl tert-butyl ether	ND		1000	220	ug/L			04/29/23 12:58	1000
m-Xylene & p-Xylene	ND		5000	630	ug/L			04/29/23 12:58	1000
Naphthalene	ND		5000	3000	ug/L			04/29/23 12:58	1000
n-Butylbenzene	ND		1000	760	ug/L			04/29/23 12:58	1000
N-Propylbenzene	ND		1000	690	ug/L			04/29/23 12:58	1000
o-Chlorotoluene	ND		1000	570	ug/L			04/29/23 12:58	1000
o-Xylene	ND		5000	600	ug/L			04/29/23 12:58	1000
p-Chlorotoluene	ND		1000	560	ug/L			04/29/23 12:58	1000
p-Isopropyltoluene	ND		1000	710	ug/L			04/29/23 12:58	1000

Client Sample ID: P58-ROX-041923
Date Collected: 04/19/23 10:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1000	700	ug/L			04/29/23 12:58	1000
Styrene	ND		1000	1000	ug/L			04/29/23 12:58	1000
tert-Butylbenzene	ND		1000	630	ug/L			04/29/23 12:58	1000
1,1,1,2-Tetrachloroethane	ND		1000	160	ug/L			04/29/23 12:58	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			04/29/23 12:58	1000
Tetrachloroethene	ND		1000	900	ug/L			04/29/23 12:58	1000
Toluene	ND		1000	410	ug/L			04/29/23 12:58	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			04/29/23 12:58	1000
trans-1,3-Dichloropropene	ND		5000	200	ug/L			04/29/23 12:58	1000
1,2,3-Trichlorobenzene	ND		1000	900	ug/L			04/29/23 12:58	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			04/29/23 12:58	1000
1,1,1-Trichloroethane	ND		1000	180	ug/L			04/29/23 12:58	1000
1,1,2-Trichloroethane	ND		5000	210	ug/L			04/29/23 12:58	1000
Trichloroethene	ND		1000	150	ug/L			04/29/23 12:58	1000
Trichlorofluoromethane	ND		1000	520	ug/L			04/29/23 12:58	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			04/29/23 12:58	1000
1,2,4-Trimethy benzene	ND		1000	820	ug/L			04/29/23 12:58	1000
1,3,5-Trimethy benzene	ND		1000	560	ug/L			04/29/23 12:58	1000
Vinyl acetate	ND		25000	930	ug/L			04/29/23 12:58	1000
Vinyl chloride	ND		1000	500	ug/L			04/29/23 12:58	1000
Xylenes, Total	ND		10000	1600	ug/L			04/29/23 12:58	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 12:58*	*1000*
Dibromofluoromethane	*99*		*75 - 126*		*04/29/23 12:58*	*1000*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 12:58*	*1000*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/24/23 08:27	04/25/23 16:26	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/24/23 08:27	04/25/23 16:26	1
Anthracene	ND	*+	0.20	0.031	ug/L		04/24/23 08:27	04/25/23 16:26	1
Benzo[a]anthracene	**0.40**		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 16:26	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/24/23 08:27	04/25/23 16:26	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/24/23 08:27	04/25/23 16:26	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 16:26	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/24/23 08:27	04/25/23 16:26	1
Chrysene	**0.60**		0.20	0.073	ug/L		04/24/23 08:27	04/25/23 16:26	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/24/23 08:27	04/25/23 16:26	1
Fluoranthene	ND		0.20	0.067	ug/L		04/24/23 08:27	04/25/23 16:26	1
Fluorene	**1.9**		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 16:26	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 16:26	1
1-Methylnaphthalene	**93**		0.20	0.073	ug/L		04/24/23 08:27	04/25/23 16:26	1
2-Methylnaphthalene	**45**		0.20	0.059	ug/L		04/24/23 08:27	04/25/23 16:26	1
Phenanthrene	**1.8**		0.20	0.035	ug/L		04/24/23 08:27	04/25/23 16:26	1
Pyrene	**0.76**		0.20	0.039	ug/L		04/24/23 08:27	04/25/23 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*15 - 122*	*04/24/23 08:27*	*04/25/23 16:26*	*1*
Nitrobenzene-d5	*126*		*19 - 130*	*04/24/23 08:27*	*04/25/23 16:26*	*1*

Client Sample ID: P58-ROX-041923
Date Collected: 04/19/23 10:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	108		33 - 138	04/24/23 08:27	04/25/23 16:26	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/24/23 08:27	04/25/23 18:16	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		04/24/23 08:27	04/25/23 18:16	1
Benzoic acid	ND		29	7.2	ug/L		04/24/23 08:27	04/25/23 18:16	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/24/23 08:27	04/25/23 18:16	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/24/23 08:27	04/25/23 18:16	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/24/23 08:27	04/25/23 18:16	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/24/23 08:27	04/25/23 18:16	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/24/23 08:27	04/25/23 18:16	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/24/23 08:27	04/25/23 18:16	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/24/23 08:27	04/25/23 18:16	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/24/23 08:27	04/25/23 18:16	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/24/23 08:27	04/25/23 18:16	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/24/23 08:27	04/25/23 18:16	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/24/23 08:27	04/25/23 18:16	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/24/23 08:27	04/25/23 18:16	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/24/23 08:27	04/25/23 18:16	1
Dibenzofuran	**1.8**	**J**	9.8	0.17	ug/L		04/24/23 08:27	04/25/23 18:16	1
3,3'-Dichlorobenzidine	ND	*+	9.8	2.5	ug/L		04/24/23 08:27	04/25/23 18:16	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/24/23 08:27	04/25/23 18:16	1
Diethyl phthalate	ND		9.8	0.24	ug/L		04/24/23 08:27	04/25/23 18:16	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/24/23 08:27	04/25/23 18:16	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/24/23 08:27	04/25/23 18:16	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/24/23 08:27	04/25/23 18:16	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/24/23 08:27	04/25/23 18:16	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/24/23 08:27	04/25/23 18:16	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/24/23 08:27	04/25/23 18:16	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/24/23 08:27	04/25/23 18:16	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/24/23 08:27	04/25/23 18:16	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/24/23 08:27	04/25/23 18:16	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/24/23 08:27	04/25/23 18:16	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/24/23 08:27	04/25/23 18:16	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		04/24/23 08:27	04/25/23 18:16	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/24/23 08:27	04/25/23 18:16	1
Indene	ND		9.8	0.98	ug/L		04/24/23 08:27	04/25/23 18:16	1
Isophorone	ND		9.8	0.14	ug/L		04/24/23 08:27	04/25/23 18:16	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/24/23 08:27	04/25/23 18:16	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/24/23 08:27	04/25/23 18:16	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/24/23 08:27	04/25/23 18:16	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/24/23 08:27	04/25/23 18:16	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/24/23 08:27	04/25/23 18:16	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/24/23 08:27	04/25/23 18:16	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/24/23 08:27	04/25/23 18:16	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/24/23 08:27	04/25/23 18:16	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/24/23 08:27	04/25/23 18:16	1

Client Sample ID: P58-ROX-041923
Date Collected: 04/19/23 10:45
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236453-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/24/23 08:27	04/25/23 18:16	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/24/23 08:27	04/25/23 18:16	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 18:16	1
Pyridine	ND		9.8	3.1	ug/L		04/24/23 08:27	04/25/23 18:16	1
Quinoline	ND		9.8	4.4	ug/L		04/24/23 08:27	04/25/23 18:16	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/24/23 08:27	04/25/23 18:16	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/24/23 08:27	04/25/23 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*04/24/23 08:27*	*04/25/23 18:16*	*1*
2-Fluorophenol	*30*		*13 - 113*	*04/24/23 08:27*	*04/25/23 18:16*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*04/24/23 08:27*	*04/25/23 18:16*	*1*
Phenol-d5	*64*		*17 - 127*	*04/24/23 08:27*	*04/25/23 18:16*	*1*
Terphenyl-d14	*60*		*44 - 149*	*04/24/23 08:27*	*04/25/23 18:16*	*1*
2,4,6-Tribromophenol	*82*		*26 - 150*	*04/24/23 08:27*	*04/25/23 18:16*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**720**		98	25	ug/L		04/24/23 08:27	04/27/23 18:13	10

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/23 10:17	04/27/23 02:00	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 02:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*04/26/23 10:17*	*04/27/23 02:00*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236453-1	TB-ROX-041923-8260	98	95	96
400-236453-3	P57-ROX-041923	98	103	95
400-236453-4	P58-ROX-041923	98	99	95
LCS 400-622811/1002	Lab Control Sample	96	96	97
MB 400-622811/4	Method Blank	97	97	96

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236453-3	P57-ROX-041923	80	28	79	60	52	75
400-236453-4	P58-ROX-041923	75	30	84	64	60	82
LCS 400-621966/2-A	Lab Control Sample	84	32	77	61	90	76
LCS 400-621966/4-A	Lab Control Sample	79	19	76	44	91	48
LCSD 400-621966/3-A	Lab Control Sample Dup	89	14	77	52	93	81
LCSD 400-621966/5-A	Lab Control Sample Dup	101	49	92	78	115	30
MB 400-621966/1-A	Method Blank	87	10 S1-	81	40	100	53

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236453-3	P57-ROX-041923	120	126	92
400-236453-4	P58-ROX-041923	99	126	108
LCS 400-621966/2-A	Lab Control Sample	87	97	128
LCSD 400-621966/3-A	Lab Control Sample Dup	88	96	122
MB 400-621966/1-A	Method Blank	130 S1+	128	209 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Job ID: 400-236453-1
Project/Site: ROXANA QUARTERLY GW

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		BFB1									
Lab Sample ID	Client Sample ID	(51-149)									
400-236453-2	TB-ROX-041923-8011	124									
400-236453-3	P57-ROX-041923	123									
400-236453-4	P58-ROX-041923	99									
LCS 400-622241/2-A	Lab Control Sample	108									
LCS 400-622327/2-A	Lab Control Sample	93									
LCSD 400-622241/3-A	Lab Control Sample Dup	110									
LCSD 400-622327/3-A	Lab Control Sample Dup	108									
MB 400-622241/1-A	Method Blank	113									
MB 400-622327/1-A	Method Blank	99									

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Client Sample ID: TB-ROX-041923-8260

Lab Sample ID: 400-236453-1

Date Collected: 04/19/23 12:00

Matrix: Water

Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 15:26	AGW	EET PEN

Client Sample ID: TB-ROX-041923-8011

Lab Sample ID: 400-236453-2

Date Collected: 04/19/23 12:00

Matrix: Water

Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			36.2 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 18:26	PG	EET PEN

Client Sample ID: P57-ROX-041923

Lab Sample ID: 400-236453-3

Date Collected: 04/19/23 09:45

Matrix: Water

Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 19:57	AGW	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:54	S1B	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 16:09	S1B	EET PEN
Total/NA	Prep	8011			36.2 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 18:47	PG	EET PEN

Client Sample ID: P58-ROX-041923

Lab Sample ID: 400-236453-4

Date Collected: 04/19/23 10:45

Matrix: Water

Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	5 mL	5 mL	622811	04/29/23 12:58	AGW	EET PEN
Total/NA	Prep	3520C	DL		255 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D	DL	10	0.4 mL	0.4 mL	622525	04/27/23 18:13	S1B	EET PEN
Total/NA	Prep	3520C			255 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 18:16	S1B	EET PEN
Total/NA	Prep	3520C			255 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 16:26	S1B	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 02:00	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621966/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:04	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621966/1-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 15:17	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622241/1-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 09:50	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622327/1-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 00:58	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622811/4

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 12:09	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621966/2-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:10	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:34	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621966/4-A

Date Collected: N/A
Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:26	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236453-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622241/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 10:10	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622327/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 01:19	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622811/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 11:11	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:32	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:52	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:48	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622241/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622241	04/25/23 15:00	PG	EET PEN
Total/NA	Analysis	8011		1			622312	04/26/23 10:31	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622327/3-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 01:39	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-1	TB-ROX-041923-8260	Total/NA	Water	8260B	
400-236453-3	P57-ROX-041923	Total/NA	Water	8260B	
400-236453-4	P58-ROX-041923	Total/NA	Water	8260B	
MB 400-622811/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622811/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-3	P57-ROX-041923	Total/NA	Water	3520C	
400-236453-4	P58-ROX-041923	Total/NA	Water	3520C	
400-236453-4 - DL	P58-ROX-041923	Total/NA	Water	3520C	
MB 400-621966/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 622176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-3	P57-ROX-041923	Total/NA	Water	8270D LL	621966
400-236453-4	P58-ROX-041923	Total/NA	Water	8270D LL	621966
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D LL	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	621966

Analysis Batch: 622209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-3	P57-ROX-041923	Total/NA	Water	8270D	621966
400-236453-4	P58-ROX-041923	Total/NA	Water	8270D	621966
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966

Analysis Batch: 622525

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-4 - DL	P58-ROX-041923	Total/NA	Water	8270D	621966

GC Semi VOA

Prep Batch: 622241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-2	TB-ROX-041923-8011	Total/NA	Water	8011	
400-236453-3	P57-ROX-041923	Total/NA	Water	8011	
MB 400-622241/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622241/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622241/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

GC Semi VOA

Analysis Batch: 622312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-2	TB-ROX-041923-8011	Total/NA	Water	8011	622241
400-236453-3	P57-ROX-041923	Total/NA	Water	8011	622241
MB 400-622241/1-A	Method Blank	Total/NA	Water	8011	622241
LCS 400-622241/2-A	Lab Control Sample	Total/NA	Water	8011	622241
LCSD 400-622241/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622241

Prep Batch: 622327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-4	P58-ROX-041923	Total/NA	Water	8011	
MB 400-622327/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622327/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236453-4	P58-ROX-041923	Total/NA	Water	8011	622327
MB 400-622327/1-A	Method Blank	Total/NA	Water	8011	622327
LCS 400-622327/2-A	Lab Control Sample	Total/NA	Water	8011	622327
LCSD 400-622327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622327

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622811/4
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 12:09	1
Acrolein	ND		20	3.3	ug/L			04/29/23 12:09	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 12:09	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 12:09	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 12:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 12:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 12:09	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 12:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 12:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 12:09	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 12:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 12:09	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 12:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 12:09	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 12:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 12:09	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 12:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 12:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 12:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 12:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 12:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 12:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 12:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 12:09	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 12:09	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 12:09	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 12:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 12:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 12:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 12:09	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 12:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 12:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 12:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 12:09	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 12:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 12:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622811/4
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 12:09	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 12:09	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 12:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 12:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 12:09	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 12:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 12:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 12:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 12:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 12:09	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 12:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 12:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 12:09	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 12:09	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 12:09	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 12:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/29/23 12:09*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/29/23 12:09*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/29/23 12:09*	*1*

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	158		ug/L		79	43 - 160
Acrolein	500	472		ug/L		94	38 - 160
Acrylonitrile	500	418		ug/L		84	64 - 142
Benzene	50.0	42.4		ug/L		85	70 - 130
Bromobenzene	50.0	42.3		ug/L		85	70 - 132
Bromochloromethane	50.0	44.7		ug/L		89	70 - 130
Bromodichloromethane	50.0	39.7		ug/L		79	67 - 133
Bromoform	50.0	42.1		ug/L		84	57 - 140
Bromomethane	50.0	41.9		ug/L		84	10 - 160
2-Butanone (MEK)	200	163		ug/L		82	61 - 145
Carbon disulfide	50.0	43.2		ug/L		86	61 - 137
Carbon tetrachloride	50.0	38.2		ug/L		76	61 - 137
Chlorobenzene	50.0	42.2		ug/L		84	70 - 130
Dibromochloromethane	50.0	41.3		ug/L		83	67 - 135
Chloroethane	50.0	39.2		ug/L		78	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	49.8		ug/L		100	10 - 160
Chloroform	50.0	38.6		ug/L		77	69 - 130
1-Chlorohexane	50.0	37.2		ug/L		74	69 - 130
Chloromethane	50.0	39.8		ug/L		80	58 - 137
cis-1,2-Dichloroethene	50.0	38.4		ug/L		77	68 - 130
cis-1,3-Dichloropropene	50.0	42.9		ug/L		86	69 - 132
1,2-Dichlorobenzene	50.0	44.1		ug/L		88	67 - 130
1,3-Dichlorobenzene	50.0	44.1		ug/L		88	70 - 130
1,4-Dichlorobenzene	50.0	44.9		ug/L		90	70 - 130
Dichlorodifluoromethane	50.0	36.1		ug/L		72	41 - 146
1,1-Dichloroethane	50.0	40.1		ug/L		80	70 - 130
1,2-Dichloroethane	50.0	36.3		ug/L		73	69 - 130
1,1-Dichloroethene	50.0	45.3		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	41.2		ug/L		82	70 - 130
1,3-Dichloropropane	50.0	42.3		ug/L		85	70 - 130
2,2-Dichloropropane	50.0	40.1		ug/L		80	52 - 135
1,1-Dichloropropene	50.0	40.4		ug/L		81	70 - 130
Ethylbenzene	50.0	40.1		ug/L		80	70 - 130
Ethyl methacrylate	50.0	41.4		ug/L		83	68 - 130
Hexachlorobutadiene	50.0	44.8		ug/L		90	53 - 140
2-Hexanone	200	152		ug/L		76	65 - 137
Isopropy benzene	50.0	40.3		ug/L		81	70 - 130
Methylene bromide	50.0	42.3		ug/L		85	70 - 130
Methylene Chloride	50.0	46.3		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	162		ug/L		81	69 - 138
Methyl tert-butyl ether	50.0	43.2		ug/L		86	66 - 130
m-Xylene & p-Xylene	50.0	40.1		ug/L		80	70 - 130
Naphthalene	50.0	57.7		ug/L		115	47 - 149
n-Butylbenzene	50.0	43.1		ug/L		86	67 - 130
N-Propylbenzene	50.0	41.6		ug/L		83	70 - 130
o-Chlorotoluene	50.0	39.6		ug/L		79	70 - 130
o-Xylene	50.0	40.0		ug/L		80	70 - 130
p-Chlorotoluene	50.0	40.8		ug/L		82	70 - 130
p-Isopropyltoluene	50.0	41.7		ug/L		83	65 - 130
sec-Butylbenzene	50.0	41.2		ug/L		82	66 - 130
Styrene	50.0	41.5		ug/L		83	70 - 130
tert-Butylbenzene	50.0	43.7		ug/L		87	64 - 139
1,1,1,2-Tetrachloroethane	50.0	41.5		ug/L		83	67 - 131
1,1,2,2-Tetrachloroethane	50.0	42.7		ug/L		85	70 - 131
Tetrachloroethene	50.0	41.4		ug/L		83	65 - 130
Toluene	50.0	41.1		ug/L		82	70 - 130
trans-1,2-Dichloroethene	50.0	42.4		ug/L		85	70 - 130
trans-1,3-Dichloropropene	50.0	40.7		ug/L		81	63 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/L		103	60 - 138
1,2,4-Trichlorobenzene	50.0	50.5		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	37.7		ug/L		75	68 - 130
1,1,2-Trichloroethane	50.0	41.0		ug/L		82	70 - 130
Trichloroethene	50.0	42.1		ug/L		84	70 - 130
Trichlorofluoromethane	50.0	41.3		ug/L		83	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichloropropane			50.0	41.2		ug/L		82	70 - 130		
1,2,4-Trimethy benzene			50.0	42.5		ug/L		85	70 - 130		
1,3,5-Trimethy benzene			50.0	41.2		ug/L		82	69 - 130		
Vinyl acetate			100	93.9		ug/L		94	26 - 160		
Vinyl chloride			50.0	42.7		ug/L		85	59 - 136		
Xylenes, Total			100	80.1		ug/L		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzenethiol	ND		10	1.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzoic acid	ND		30	7.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzyl alcohol	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/24/23 08:27	04/25/23 16:04	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloroaniline	ND		10	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chlorophenol	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenzofuran	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Diethyl phthalate	0.490	J	10	0.24	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dimethyl phthalate	0.268	J	10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
1,4-Dioxane	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachloroethane	ND		10	4.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Indene	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Isophorone	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Methylphenol	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitroaniline	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
3-Nitroaniline	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitroaniline	ND		10	1.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Nitrobenzene	ND		10	0.13	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitrophenol	ND		10	5.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitrophenol	ND		10	2.1	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
Phenol	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pyridine	ND		10	3.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Quinoline	ND		10	4.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Phenol-d5	*40*		*17 - 127*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2,4,6-Tribromophenol	*53*		*26 - 150*	*04/24/23 08:27*	*04/25/23 16:04*	*1*

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	84.3		ug/L		70	21 - 120
Benzoic acid	554	182		ug/L		33	10 - 144
Benzyl alcohol	120	80.7		ug/L		67	28 - 120
Bis(2-chloroethoxy)methane	120	83.0		ug/L		69	47 - 120
Bis(2-chloroethyl)ether	120	85.6		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	92.6		ug/L		77	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
Butyl benzyl phthalate	120	112		ug/L		94	54 - 133
4-Chloroaniline	120	102		ug/L		85	26 - 120
4-Chloro-3-methylphenol	120	90.0		ug/L		75	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	98.8		ug/L		82	52 - 121
2-Chlorophenol	120	66.2		ug/L		55	40 - 120
4-Chlorophenyl phenyl ether	120	103		ug/L		86	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	98.6		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	210		ug/L		131	36 - 132
2,4-Dichlorophenol	120	83.5		ug/L		70	49 - 120
Diethyl phthalate	120	109		ug/L		90	50 - 137
2,4-Dimethylphenol	120	77.7		ug/L		65	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	115		ug/L		96	58 - 126
4,6-Dinitro-ortho-cresol	240	195		ug/L		81	23 - 148
2,4-Dinitrophenol	240	217		ug/L		90	10 - 150
2,4-Dinitrotoluene	120	103		ug/L		86	54 - 142
2,6-Dinitrotoluene	120	106		ug/L		88	55 - 130
Di-n-octyl phthalate	120	109		ug/L		91	57 - 138
1,4-Dioxane	120	63.0		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	104		ug/L		87	45 - 124
Hexachlorobenzene	120	104		ug/L		87	52 - 129
Hexachlorocyclopentadiene	120	65.3		ug/L		54	10 - 134
Hexachloroethane	120	93.5		ug/L		78	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	86.2		ug/L		72	48 - 120
2-Methylphenol	120	94.1		ug/L		78	46 - 124
3 & 4 Methylphenol	120	92.1		ug/L		77	45 - 120
2-Nitroaniline	120	113		ug/L		94	51 - 145
3-Nitroaniline	120	102		ug/L		85	37 - 127
4-Nitroaniline	120	110		ug/L		92	36 - 137
Nitrobenzene	120	86.3		ug/L		72	45 - 120
2-Nitrophenol	120	81.4		ug/L		68	40 - 124
4-Nitrophenol	240	289		ug/L		120	23 - 146
N-Nitrosodimethylamine	120	89.2		ug/L		74	29 - 137
N-Nitrosodi-n-propylamine	120	103		ug/L		86	45 - 120
N-Nitrosodiphenylamine	119	107		ug/L		90	54 - 120
Pentachlorophenol	240	148		ug/L		62	31 - 130
Phenol	120	67.7		ug/L		56	11 - 120
Pyridine	240	132		ug/L		55	16 - 120
Quinoline	120	99.3		ug/L		83	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	89.5		ug/L		75	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*61*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*76*		*26 - 150*

Lab Sample ID: LCS 400-621966/4-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.71	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*91*		*44 - 149*
2,4,6-Tribromophenol	*48*		*26 - 150*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	102		ug/L		85	21 - 120	19	30
Benzoic acid			554	198		ug/L		36	10 - 144	8	30
Benzyl alcohol			120	86.0		ug/L		72	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	90.0		ug/L		75	47 - 120	8	30
Bis(2-chloroethyl)ether			120	86.3		ug/L		72	44 - 120	1	30
bis (2-chloroisopropyl) ether			120	97.2		ug/L		81	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	116		ug/L		97	52 - 147	7	30
4-Bromophenyl phenyl ether			120	121		ug/L		101	54 - 122	11	30
Butyl benzyl phthalate			120	117		ug/L		98	54 - 133	4	30
4-Chloroaniline			120	111		ug/L		93	26 - 120	9	30
4-Chloro-3-methylphenol			120	98.7		ug/L		82	48 - 131	9	30
2-Chloronaphthalene			120	110		ug/L		92	52 - 121	11	30
2-Chlorophenol			120	50.6		ug/L		42	40 - 120	27	30
4-Chlorophenyl phenyl ether			120	113		ug/L		94	56 - 125	9	30
Dibenz[a,h]acridine			120	113		ug/L		95	31 - 150	12	30
Dibenzofuran			120	108		ug/L		90	56 - 122	9	30
3,3'-Dichlorobenzidine			160	225	*+	ug/L		141	36 - 132	7	30
2,4-Dichlorophenol			120	84.0		ug/L		70	49 - 120	1	30
Diethyl phthalate			120	116		ug/L		97	50 - 137	7	30
2,4-Dimethylphenol			120	83.3		ug/L		69	48 - 120	7	30
Dimethyl phthalate			120	114		ug/L		95	57 - 124	10	30
Di-n-butyl phthalate			120	125		ug/L		104	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	226		ug/L		94	23 - 148	15	30
2,4-Dinitrophenol			240	228		ug/L		95	10 - 150	5	30
2,4-Dinitrotoluene			120	112		ug/L		94	54 - 142	9	30
2,6-Dinitrotoluene			120	115		ug/L		96	55 - 130	8	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	115		ug/L		95	57 - 138	5	30
1,4-Dioxane			120	64.3		ug/L		54	31 - 120	2	30
1,2-Diphenylhydrazine (as Azobenzene)			120	113		ug/L		94	45 - 124	8	30
Hexachlorobenzene			120	115		ug/L		96	52 - 129	10	30
Hexachlorocyclopentadiene			120	73.4		ug/L		61	10 - 134	12	30
Hexachloroethane			120	97.7		ug/L		81	20 - 120	4	30
Indene			120	95.2		ug/L		79	49 - 120	7	30
Isophorone			120	91.6		ug/L		76	48 - 120	6	30
2-Methylphenol			120	99.5		ug/L		83	46 - 124	6	30
3 & 4 Methylphenol			120	96.0		ug/L		80	45 - 120	4	30
2-Nitroaniline			120	122		ug/L		102	51 - 145	8	30
3-Nitroaniline			120	110		ug/L		92	37 - 127	8	30
4-Nitroaniline			120	124		ug/L		103	36 - 137	12	30
Nitrobenzene			120	92.8		ug/L		77	45 - 120	7	30
2-Nitrophenol			120	85.2		ug/L		71	40 - 124	5	30
4-Nitrophenol			240	314		ug/L		131	23 - 146	8	30
N-Nitrosodimethylamine			120	94.0		ug/L		78	29 - 137	5	30
N-Nitrosodi-n-propylamine			120	110		ug/L		92	45 - 120	6	30
N-Nitrosodiphenylamine			119	120		ug/L		101	54 - 120	11	30
Pentachlorophenol			240	173		ug/L		72	31 - 130	15	30
Phenol			120	57.7		ug/L		48	11 - 120	16	30
Pyridine			240	140		ug/L		58	16 - 120	5	30
Quinoline			120	109		ug/L		91	49 - 130	9	30
2,4,5-Trichlorophenol			120	103		ug/L		86	51 - 136	10	30
2,4,6-Trichlorophenol			120	100		ug/L		84	50 - 127	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*14*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*81*		*26 - 150*

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.49	J *-	ug/L		3	10 - 120	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*101*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*92*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	30		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 15:17	1
Anthracene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/24/23 08:27	04/25/23 15:17	1
Chrysene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluoranthene	ND		0.20	0.068	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 15:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 15:17	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/24/23 08:27	04/25/23 15:17	1
Phenanthrene	ND		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 15:17	1
Pyrene	ND		0.20	0.040	ug/L		04/24/23 08:27	04/25/23 15:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	130	S1+	15 - 122	04/24/23 08:27	04/25/23 15:17	1
Nitrobenzene-d5	128		19 - 130	04/24/23 08:27	04/25/23 15:17	1
Terphenyl-d14	209	S1+	33 - 138	04/24/23 08:27	04/25/23 15:17	1

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	133		ug/L		111	44 - 120
Anthracene	120	144		ug/L		120	49 - 120
Benzo[a]anthracene	120	151		ug/L		126	61 - 135
Benzo[a]pyrene	120	138		ug/L		115	52 - 120
Benzo[b]fluoranthene	120	139		ug/L		115	53 - 134
Benzo[g,h,i]perylene	120	141		ug/L		117	47 - 133
Benzo[k]fluoranthene	120	130		ug/L		109	57 - 134
Chrysene	120	136		ug/L		113	55 - 122
Dibenz(a,h)anthracene	120	143		ug/L		119	48 - 146
Fluoranthene	120	132		ug/L		110	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	120	131		ug/L		110	45 - 125
Indeno[1,2,3-cd]pyrene	120	133		ug/L		111	43 - 142
1-Methylnaphthalene	120	121		ug/L		101	41 - 120
2-Methylnaphthalene	120	115		ug/L		96	32 - 124
Phenanthrene	120	129		ug/L		108	48 - 120
Pyrene	120	146		ug/L		122	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*15 - 122*
Nitrobenzene-d5	*97*		*19 - 130*
Terphenyl-d14	*128*		*33 - 138*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	126		ug/L		105	41 - 120	9	56
Acenaphthylene	120	137		ug/L		114	44 - 120	3	56
Anthracene	120	145	*+	ug/L		121	49 - 120	1	51
Benzo[a]anthracene	120	149		ug/L		125	61 - 135	1	49
Benzo[a]pyrene	120	141		ug/L		118	52 - 120	2	50
Benzo[b]fluoranthene	120	149		ug/L		124	53 - 134	7	54
Benzo[g,h,i]perylene	120	136		ug/L		113	47 - 133	3	50
Benzo[k]fluoranthene	120	133		ug/L		111	57 - 134	2	52
Chrysene	120	143		ug/L		119	55 - 122	5	50
Dibenz(a,h)anthracene	120	145		ug/L		121	48 - 146	2	50
Fluoranthene	120	137		ug/L		114	54 - 128	4	52
Fluorene	120	140		ug/L		117	45 - 125	7	56
Indeno[1,2,3-cd]pyrene	120	130		ug/L		108	43 - 142	3	51
1-Methylnaphthalene	120	124		ug/L		104	41 - 120	3	55
2-Methylnaphthalene	120	119		ug/L		99	32 - 124	3	57
Phenanthrene	120	134		ug/L		112	48 - 120	4	56
Pyrene	120	145		ug/L		121	48 - 132	1	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*
Nitrobenzene-d5	*96*		*19 - 130*
Terphenyl-d14	*122*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622241/1-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/25/23 15:00	04/26/23 09:50	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-622241/1-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622241

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/25/23 15:00	04/26/23 09:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/25/23 15:00*	*04/26/23 09:50*	*1*

Lab Sample ID: LCS 400-622241/2-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622241

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-D bromo-3-Chloropropane	0.101	0.132		ug/L		131	60 - 140
1,2-D bromoethane	0.101	0.119		ug/L		118	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*51 - 149*

Lab Sample ID: LCSD 400-622241/3-A
Matrix: Water
Analysis Batch: 622312

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622241

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane	0.101	0.128		ug/L		127	60 - 140	3	30
1,2-D bromoethane	0.101	0.118		ug/L		117	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*51 - 149*

Lab Sample ID: MB 400-622327/1-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/23 10:17	04/27/23 00:58	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 00:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*04/26/23 10:17*	*04/27/23 00:58*	*1*

Lab Sample ID: LCS 400-622327/2-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622327

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-D bromo-3-Chloropropane	0.101	0.160	*+	ug/L		160	60 - 140
1,2-D bromoethane	0.101	0.116		ug/L		115	60 - 140

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-622327/2-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622327

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*93*		*51 - 149*

Lab Sample ID: LCSD 400-622327/3-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622327

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.168	*+	ug/L		167	60 - 140	5	30
1,2-D bromoethane			0.101	0.128		ug/L		127	60 - 140	9	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	*108*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:		
☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER_ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/19/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60697537 – 3.2.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):	SAMPLER NAME(S) (Print):	LAB USE ONLY
Melissa Remiger, Mary Massa, Brett Howell	M. Massa, T. Jenkins	

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041923-8260	4/19/2023	0000	Water	2					2	X			
	TB-ROX-041923-8011	4/19/2023	0000	Water	2					2		X		
	P57-ROX-041923	4/19/2023	0945	Water	6			2		8	X	X	X	X
	P58-ROX-041923	4/19/2023	1045	Water	6			2		8	X	X	X	X

400-236453 COC

4/19/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5293 4337 5294, 5293 4337 5309	4/19/2023	1600
Relinquished by: (Signature)	Received by: (Signature) 1.72 C(1)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-20-23	Time: 1252

Version: 13Oct22

CUSTODY SEALS: 1599720, 1599721, 1599722, 1599723

5/8/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-236453-1

Login Number: 236453
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236453-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236455-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/31/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041923-8260-SS	TB-ROX-041923-8011-SS
P93A-ROX-041923-EB	P93A-ROX-041923
P93C-ROX-041923	

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 diethyl phthalate and dimethyl phthalate were detected in equipment blank P93A-ROX-041923-EB and/or method blank. Several SVOC, anthracene, and 1,2-dibromo-3-chloropropane LCS/LCSD recoveries were outside evaluation criteria. Several SVOC and PAH surrogate recoveries were outside criteria in several investigative and quality control samples. The continuing calibration verification (CCV) for chloroform was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory issued a revised report on June 08, 2023, to include missing ICVs for method 8270D and missing LCS/LCSDs for method 8011.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Sample ID	Parameter	Analyte	Concentration /Amount
P93A-ROX-041923-EB	SVOCs	Diethyl phthalate	0.30 µg/L
MB 400-621966/1-A	SVOCs	Diethyl phthalate	0.490 µg/L

Sample ID	Parameter	Analyte	Concentration /Amount
MB 400-621966/1-A	SVOCs	Dimethyl phthalate	0.268 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P93C-ROX-041923	SVOCs	Dimethyl 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
LCS/LCSD 400-621966/4-A/5-A	SVOCs	Benzenethiol	**3/3**	6	10-120/30
LCS/LCSD 400-621966/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	131/**141**	7	36-132/30
LCS/LCSD 400-621966/2-A/3-A	PAHs	Anthracene	120/**121**	1	49-120/51
LCS/LCSD 400-622327/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**160/167**	5	60-140/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P93A-ROX-041923	SVOCs	Benzenethiol	**UJ**
P93C-ROX-041923	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-621966/1-A	SVOCs	2-Fluorophenol	**10**	13-113
P93A-ROX-041923-EB	PAHs	Terphenyl-d14	**173**	33-138
P93A-ROX-041923	PAHs	Terphenyl-d14	**161**	33-138
P93C-ROX-041923	PAHs	Terphenyl-d14	**167**	33-138

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-621966/1-A	PAHs	2-Fluorobiphenyl	**130**	15-122
MB 400-621966/1-A	PAHs	Terphenyl-d_{14}	**209**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Equipment blanks and method blanks are quality control samples and do not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for chloroform was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93A-ROX-041923	VOCs	Chloroform	**UJ**
P93C-ROX-041923	VOCs	Chloroform	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 5/19/2023 9:05:32 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236455-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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5/19/2023 9:05:32 AM

Authorized for release by
Mark Swafford, Project Manager II
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Designee for
Leah Klingensmith, Senior Project Manager
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Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 23
Surrogate Summary 24
Method Summary 26
Chronicle 27
QC Association 30
QC Sample Results 32
Chain of Custody 43
Receipt Checklists 44
Certification Summary 45

Job ID: 400-236455-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236455-1

Receipt
The samples were received on 4/20/2023 12:52 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 1.7°C and 5.6°C

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-622811 recovered outside acceptance criteria, low biased, for Chloroform. A reporting limit (RL) standard was analyzed, and the target analyte is detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041923-8260-SS (400-236455-1), P93A-ROX-041923-EB (400-236455-3), P93A-ROX-041923 (400-236455-4) and P93C-ROX-041923 (400-236455-5). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The method blank for preparation batch 400-621966 and analytical batch 400-622209 contained Diethyl phthalate and Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622209 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-622209 recovered above the upper control limit for 4-Nitrophenol and 2-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621966 and analytical batch 400-622209 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-621966/1-A). These results have been reported and qualified.

Method 8270D_LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: P93A-ROX-041923-EB (400-236455-3), P93A-ROX-041923 (400-236455-4) and P93C-ROX-041923 (400-236455-5). These results have been reported and qualified.

Method 8270D_LL: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622176 recovered outside control limits for the following analytes: Anthracene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D_LL: The surrogate recovery for the blank associated with preparation batch 400-621966 and analytical batch 400-622176 was outside the upper control limits.

Job ID: 400-236455-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622352 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-622327 and analytical batch 400-622352 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236455-1	TB-ROX-041923-8260-SS	Water	04/19/23 12:00	04/20/23 12:52
400-236455-2	TB-ROX-041923-8011-SS	Water	04/19/23 12:00	04/20/23 12:52
400-236455-3	P93A-ROX-041923-EB	Water	04/19/23 08:20	04/20/23 12:52
400-236455-4	P93A-ROX-041923	Water	04/19/23 11:50	04/20/23 12:52
400-236455-5	P93C-ROX-041923	Water	04/19/23 12:55	04/20/23 12:52

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: TB-ROX-041923-8260-SS — Lab Sample ID: 400-236455-1

No Detections.

Client Sample ID: TB-ROX-041923-8011-SS — Lab Sample ID: 400-236455-2

No Detections.

Client Sample ID: P93A-ROX-041923-EB — Lab Sample ID: 400-236455-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	0.30	J B	9.6	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: P93A-ROX-041923 — Lab Sample ID: 400-236455-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.93	J	1.0	0.13	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.85	J	1.0	0.63	ug/L	1		8260B	Total/NA

Client Sample ID: P93C-ROX-041923 — Lab Sample ID: 400-236455-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	71		1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	2.8		1.0	0.22	ug/L	1		8260B	Total/NA
Dimethyl phthalate	0.38	J B U	10	0.17	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: TB-ROX-041923-8260-SS
Date Collected: 04/19/23 12:00
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 16:15	1
Acrolein	ND		20	3.3	ug/L			04/29/23 16:15	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 16:15	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 16:15	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 16:15	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 16:15	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 16:15	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 16:15	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 16:15	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 16:15	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 16:15	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 16:15	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 16:15	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 16:15	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 16:15	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 16:15	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 16:15	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 16:15	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 16:15	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 16:15	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 16:15	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 16:15	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 16:15	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 16:15	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 16:15	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 16:15	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 16:15	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 16:15	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 16:15	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 16:15	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 16:15	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 16:15	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 16:15	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 16:15	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 16:15	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 16:15	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 16:15	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 16:15	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 16:15	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 16:15	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 16:15	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 16:15	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 16:15	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 16:15	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 16:15	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 16:15	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 16:15	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 16:15	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 16:15	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: TB-ROX-041923-8260-SS
Date Collected: 04/19/23 12:00
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 16:15	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 16:15	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 16:15	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 16:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 16:15	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 16:15	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 16:15	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 16:15	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 16:15	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 16:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 16:15	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 16:15	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 16:15	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 16:15	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 16:15	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 16:15	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 16:15	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 16:15	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 16:15	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 16:15	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 16:15*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/29/23 16:15*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/29/23 16:15*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: TB-ROX-041923-8011-SS
Date Collected: 04/19/23 12:00
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/23 10:17	04/27/23 02:20	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 02:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/26/23 10:17*	*04/27/23 02:20*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93A-ROX-041923-EB
Date Collected: 04/19/23 08:20
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 16:40	1
Acrolein	ND		20	3.3	ug/L			04/29/23 16:40	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 16:40	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 16:40	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 16:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 16:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 16:40	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 16:40	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 16:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 16:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 16:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 16:40	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 16:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 16:40	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 16:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 16:40	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 16:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 16:40	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 16:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 16:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 16:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 16:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 16:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 16:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 16:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 16:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 16:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 16:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 16:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 16:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 16:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 16:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 16:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 16:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 16:40	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 16:40	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 16:40	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 16:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 16:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 16:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 16:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 16:40	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 16:40	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 16:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 16:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 16:40	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 16:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 16:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 16:40	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93A-ROX-041923-EB
Date Collected: 04/19/23 08:20
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 16:40	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 16:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 16:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 16:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 16:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 16:40	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 16:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 16:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 16:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 16:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 16:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 16:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 16:40	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 16:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 16:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 16:40	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 16:40	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 16:40	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 16:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 16:40	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 16:40*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*04/29/23 16:40*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 16:40*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/24/23 08:27	04/25/23 16:44	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/24/23 08:27	04/25/23 16:44	1
Anthracene	ND	*+	0.19	0.031	ug/L		04/24/23 08:27	04/25/23 16:44	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/24/23 08:27	04/25/23 16:44	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/24/23 08:27	04/25/23 16:44	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/24/23 08:27	04/25/23 16:44	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/24/23 08:27	04/25/23 16:44	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/24/23 08:27	04/25/23 16:44	1
Chrysene	ND		0.19	0.071	ug/L		04/24/23 08:27	04/25/23 16:44	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/24/23 08:27	04/25/23 16:44	1
Fluoranthene	ND		0.19	0.065	ug/L		04/24/23 08:27	04/25/23 16:44	1
Fluorene	ND		0.19	0.11	ug/L		04/24/23 08:27	04/25/23 16:44	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/24/23 08:27	04/25/23 16:44	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/24/23 08:27	04/25/23 16:44	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/24/23 08:27	04/25/23 16:44	1
Phenanthrene	ND		0.19	0.035	ug/L		04/24/23 08:27	04/25/23 16:44	1
Pyrene	ND		0.19	0.039	ug/L		04/24/23 08:27	04/25/23 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*120*		*15 - 122*	*04/24/23 08:27*	*04/25/23 16:44*	*1*
Nitrobenzene-d5	*112*		*19 - 130*	*04/24/23 08:27*	*04/25/23 16:44*	*1*

Client Sample ID: P93A-ROX-041923-EB

Date Collected: 04/19/23 08:20
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-3

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*173*	*S1+*	*33 - 138*	*04/24/23 08:27*	*04/25/23 16:44*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.7	ug/L		04/24/23 08:27	04/25/23 18:38	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		04/24/23 08:27	04/25/23 18:38	1
Benzoic acid	ND		29	7.0	ug/L		04/24/23 08:27	04/25/23 18:38	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/24/23 08:27	04/25/23 18:38	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/24/23 08:27	04/25/23 18:38	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/24/23 08:27	04/25/23 18:38	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/24/23 08:27	04/25/23 18:38	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/24/23 08:27	04/25/23 18:38	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/24/23 08:27	04/25/23 18:38	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/24/23 08:27	04/25/23 18:38	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/24/23 08:27	04/25/23 18:38	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		04/24/23 08:27	04/25/23 18:38	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/24/23 08:27	04/25/23 18:38	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/24/23 08:27	04/25/23 18:38	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/24/23 08:27	04/25/23 18:38	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/24/23 08:27	04/25/23 18:38	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/24/23 08:27	04/25/23 18:38	1
3,3'-Dichlorobenzidine	ND	*+	9.6	2.5	ug/L		04/24/23 08:27	04/25/23 18:38	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/24/23 08:27	04/25/23 18:38	1
Diethyl phthalate	**0.30**	**J B**	9.6	0.23	ug/L		04/24/23 08:27	04/25/23 18:38	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/24/23 08:27	04/25/23 18:38	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/24/23 08:27	04/25/23 18:38	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/24/23 08:27	04/25/23 18:38	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/24/23 08:27	04/25/23 18:38	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/24/23 08:27	04/25/23 18:38	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/24/23 08:27	04/25/23 18:38	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/24/23 08:27	04/25/23 18:38	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/24/23 08:27	04/25/23 18:38	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/24/23 08:27	04/25/23 18:38	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/24/23 08:27	04/25/23 18:38	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/24/23 08:27	04/25/23 18:38	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/24/23 08:27	04/25/23 18:38	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/24/23 08:27	04/25/23 18:38	1
Indene	ND		9.6	0.96	ug/L		04/24/23 08:27	04/25/23 18:38	1
Isophorone	ND		9.6	0.13	ug/L		04/24/23 08:27	04/25/23 18:38	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/24/23 08:27	04/25/23 18:38	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/24/23 08:27	04/25/23 18:38	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/24/23 08:27	04/25/23 18:38	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/24/23 08:27	04/25/23 18:38	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/24/23 08:27	04/25/23 18:38	1
Nitrobenzene	ND		9.6	0.13	ug/L		04/24/23 08:27	04/25/23 18:38	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/24/23 08:27	04/25/23 18:38	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/24/23 08:27	04/25/23 18:38	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/24/23 08:27	04/25/23 18:38	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93A-ROX-041923-EB
Date Collected: 04/19/23 08:20
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/24/23 08:27	04/25/23 18:38	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/24/23 08:27	04/25/23 18:38	1
Pentachlorophenol	ND		19	1.3	ug/L		04/24/23 08:27	04/25/23 18:38	1
Phenol	ND		9.6	2.5	ug/L		04/24/23 08:27	04/25/23 18:38	1
Pyridine	ND		9.6	3.1	ug/L		04/24/23 08:27	04/25/23 18:38	1
Quinoline	ND		9.6	4.3	ug/L		04/24/23 08:27	04/25/23 18:38	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		04/24/23 08:27	04/25/23 18:38	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/24/23 08:27	04/25/23 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*04/24/23 08:27*	*04/25/23 18:38*	*1*
2-Fluorophenol	*23*		*13 - 113*	*04/24/23 08:27*	*04/25/23 18:38*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/24/23 08:27*	*04/25/23 18:38*	*1*
Phenol-d5	*55*		*17 - 127*	*04/24/23 08:27*	*04/25/23 18:38*	*1*
Terphenyl-d14	*93*		*44 - 149*	*04/24/23 08:27*	*04/25/23 18:38*	*1*
2,4,6-Tribromophenol	*64*		*26 - 150*	*04/24/23 08:27*	*04/25/23 18:38*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.029	0.017	ug/L		04/26/23 10:17	04/27/23 02:41	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 02:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*04/26/23 10:17*	*04/27/23 02:41*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93A-ROX-041923
Date Collected: 04/19/23 11:50
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 17:04	1
Acrolein	ND		20	3.3	ug/L			04/29/23 17:04	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 17:04	1
Benzene	**0.93**	**J**	1.0	0.13	ug/L			04/29/23 17:04	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 17:04	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 17:04	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 17:04	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 17:04	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 17:04	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 17:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 17:04	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 17:04	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 17:04	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 17:04	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 17:04	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 17:04	1
Chloroform	ND	UJ	1.0	1.0	ug/L			04/29/23 17:04	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 17:04	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 17:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 17:04	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 17:04	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 17:04	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 17:04	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 17:04	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 17:04	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 17:04	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 17:04	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 17:04	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 17:04	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 17:04	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 17:04	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 17:04	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 17:04	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 17:04	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 17:04	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 17:04	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 17:04	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 17:04	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 17:04	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 17:04	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 17:04	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 17:04	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 17:04	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 17:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 17:04	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 17:04	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 17:04	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 17:04	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 17:04	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93A-ROX-041923
Date Collected: 04/19/23 11:50
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 17:04	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 17:04	1
tert-Butylbenzene	**0.85**	**J**	1.0	0.63	ug/L			04/29/23 17:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 17:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 17:04	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 17:04	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 17:04	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 17:04	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 17:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 17:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 17:04	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 17:04	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 17:04	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 17:04	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 17:04	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 17:04	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 17:04	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 17:04	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 17:04	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 17:04	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 17:04*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/29/23 17:04*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/29/23 17:04*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 17:01	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 17:01	1
Anthracene	ND	*+	0.20	0.032	ug/L		04/24/23 08:27	04/25/23 17:01	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 17:01	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 17:01	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 17:01	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 17:01	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/24/23 08:27	04/25/23 17:01	1
Chrysene	ND		0.20	0.073	ug/L		04/24/23 08:27	04/25/23 17:01	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/24/23 08:27	04/25/23 17:01	1
Fluoranthene	ND		0.20	0.067	ug/L		04/24/23 08:27	04/25/23 17:01	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 17:01	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 17:01	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/24/23 08:27	04/25/23 17:01	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/24/23 08:27	04/25/23 17:01	1
Phenanthrene	ND		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 17:01	1
Pyrene	ND		0.20	0.040	ug/L		04/24/23 08:27	04/25/23 17:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*117*		*15 - 122*	*04/24/23 08:27*	*04/25/23 17:01*	*1*
Nitrobenzene-d5	*109*		*19 - 130*	*04/24/23 08:27*	*04/25/23 17:01*	*1*

Client Sample ID: P93A-ROX-041923
Date Collected: 04/19/23 11:50
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	161	S1+	33 - 138	04/24/23 08:27	04/25/23 17:01	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		04/24/23 08:27	04/25/23 19:00	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/24/23 08:27	04/25/23 19:00	1
Benzoic acid	ND		30	7.2	ug/L		04/24/23 08:27	04/25/23 19:00	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/24/23 08:27	04/25/23 19:00	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/24/23 08:27	04/25/23 19:00	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/24/23 08:27	04/25/23 19:00	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/24/23 08:27	04/25/23 19:00	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/24/23 08:27	04/25/23 19:00	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/24/23 08:27	04/25/23 19:00	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/24/23 08:27	04/25/23 19:00	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/24/23 08:27	04/25/23 19:00	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		04/24/23 08:27	04/25/23 19:00	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/24/23 08:27	04/25/23 19:00	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/24/23 08:27	04/25/23 19:00	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/24/23 08:27	04/25/23 19:00	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 19:00	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/24/23 08:27	04/25/23 19:00	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		04/24/23 08:27	04/25/23 19:00	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/24/23 08:27	04/25/23 19:00	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/24/23 08:27	04/25/23 19:00	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/24/23 08:27	04/25/23 19:00	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/24/23 08:27	04/25/23 19:00	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/24/23 08:27	04/25/23 19:00	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/24/23 08:27	04/25/23 19:00	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 19:00	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/24/23 08:27	04/25/23 19:00	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/24/23 08:27	04/25/23 19:00	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/24/23 08:27	04/25/23 19:00	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 19:00	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 19:00	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/24/23 08:27	04/25/23 19:00	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 19:00	1
Hexachloroethane	ND		9.9	4.2	ug/L		04/24/23 08:27	04/25/23 19:00	1
Indene	ND		9.9	0.99	ug/L		04/24/23 08:27	04/25/23 19:00	1
Isophorone	ND		9.9	0.14	ug/L		04/24/23 08:27	04/25/23 19:00	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/24/23 08:27	04/25/23 19:00	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/24/23 08:27	04/25/23 19:00	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/24/23 08:27	04/25/23 19:00	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/24/23 08:27	04/25/23 19:00	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/24/23 08:27	04/25/23 19:00	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/24/23 08:27	04/25/23 19:00	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/24/23 08:27	04/25/23 19:00	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/24/23 08:27	04/25/23 19:00	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/24/23 08:27	04/25/23 19:00	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93A-ROX-041923
Date Collected: 04/19/23 11:50
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/24/23 08:27	04/25/23 19:00	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/24/23 08:27	04/25/23 19:00	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 19:00	1
Phenol	ND		9.9	2.6	ug/L		04/24/23 08:27	04/25/23 19:00	1
Pyridine	ND		9.9	3.2	ug/L		04/24/23 08:27	04/25/23 19:00	1
Quinoline	ND		9.9	4.5	ug/L		04/24/23 08:27	04/25/23 19:00	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/24/23 08:27	04/25/23 19:00	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/24/23 08:27	04/25/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*04/24/23 08:27*	*04/25/23 19:00*	*1*
2-Fluorophenol	*23*		*13 - 113*	*04/24/23 08:27*	*04/25/23 19:00*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*04/24/23 08:27*	*04/25/23 19:00*	*1*
Phenol-d5	*58*		*17 - 127*	*04/24/23 08:27*	*04/25/23 19:00*	*1*
Terphenyl-d14	*94*		*44 - 149*	*04/24/23 08:27*	*04/25/23 19:00*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*04/24/23 08:27*	*04/25/23 19:00*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/23 10:17	04/27/23 03:01	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 03:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*04/26/23 10:17*	*04/27/23 03:01*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93C-ROX-041923

Date Collected: 04/19/23 12:55
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-5

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 17:29	1
Acrolein	ND		20	3.3	ug/L			04/29/23 17:29	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 17:29	1
Benzene	**71**		1.0	0.13	ug/L			04/29/23 17:29	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 17:29	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 17:29	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 17:29	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 17:29	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 17:29	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 17:29	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 17:29	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 17:29	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 17:29	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 17:29	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 17:29	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 17:29	1
Chloroform	ND	UJ	1.0	1.0	ug/L			04/29/23 17:29	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 17:29	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 17:29	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 17:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 17:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 17:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 17:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 17:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 17:29	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 17:29	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 17:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 17:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 17:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 17:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 17:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 17:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 17:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 17:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 17:29	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 17:29	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 17:29	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 17:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 17:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 17:29	1
Methyl tert-butyl ether	**2.8**		1.0	0.22	ug/L			04/29/23 17:29	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 17:29	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 17:29	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 17:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 17:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 17:29	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 17:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 17:29	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 17:29	1

Client Sample ID: P93C-ROX-041923
Date Collected: 04/19/23 12:55
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 17:29	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 17:29	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 17:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 17:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 17:29	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 17:29	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 17:29	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 17:29	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 17:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 17:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 17:29	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 17:29	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 17:29	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 17:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 17:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 17:29	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 17:29	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 17:29	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 17:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 17:29	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/29/23 17:29*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/29/23 17:29*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/29/23 17:29*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 17:18	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 17:18	1
Anthracene	ND	*+	0.20	0.032	ug/L		04/24/23 08:27	04/25/23 17:18	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/24/23 08:27	04/25/23 17:18	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 17:18	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 17:18	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 17:18	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/24/23 08:27	04/25/23 17:18	1
Chrysene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 17:18	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/24/23 08:27	04/25/23 17:18	1
Fluoranthene	ND		0.20	0.068	ug/L		04/24/23 08:27	04/25/23 17:18	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 17:18	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 17:18	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 17:18	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/24/23 08:27	04/25/23 17:18	1
Phenanthrene	ND		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 17:18	1
Pyrene	ND		0.20	0.040	ug/L		04/24/23 08:27	04/25/23 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/24/23 08:27*	*04/25/23 17:18*	*1*
Nitrobenzene-d5	*116*		*19 - 130*	*04/24/23 08:27*	*04/25/23 17:18*	*1*

Client Sample ID: P93C-ROX-041923
Date Collected: 04/19/23 12:55
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	167	S1+	33 - 138	04/24/23 08:27	04/25/23 17:18	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 19:22	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		04/24/23 08:27	04/25/23 19:22	1
Benzoic acid	ND		30	7.3	ug/L		04/24/23 08:27	04/25/23 19:22	1
Benzyl alcohol	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 19:22	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 19:22	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 19:22	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/24/23 08:27	04/25/23 19:22	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/24/23 08:27	04/25/23 19:22	1
4-Chloroaniline	ND		10	3.4	ug/L		04/24/23 08:27	04/25/23 19:22	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 19:22	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 19:22	1
2-Chlorophenol	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 19:22	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
Dibenzofuran	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 19:22	1
3,3'-Dichlorobenzidine	ND	*+	10	2.6	ug/L		04/24/23 08:27	04/25/23 19:22	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
Diethyl phthalate	ND		10	0.24	ug/L		04/24/23 08:27	04/25/23 19:22	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 19:22	1
Dimethyl phthalate	**0.38**	**J B** U	10	0.17	ug/L		04/24/23 08:27	04/25/23 19:22	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 19:22	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/24/23 08:27	04/25/23 19:22	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 19:22	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 19:22	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 19:22	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 19:22	1
1,4-Dioxane	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 19:22	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 19:22	1
Hexachloroethane	ND		10	4.2	ug/L		04/24/23 08:27	04/25/23 19:22	1
Indene	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 19:22	1
Isophorone	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 19:22	1
2-Methylphenol	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 19:22	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/24/23 08:27	04/25/23 19:22	1
2-Nitroaniline	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 19:22	1
3-Nitroaniline	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 19:22	1
4-Nitroaniline	ND		10	1.5	ug/L		04/24/23 08:27	04/25/23 19:22	1
Nitrobenzene	ND		10	0.13	ug/L		04/24/23 08:27	04/25/23 19:22	1
2-Nitrophenol	ND		10	5.2	ug/L		04/24/23 08:27	04/25/23 19:22	1
4-Nitrophenol	ND		10	2.1	ug/L		04/24/23 08:27	04/25/23 19:22	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 19:22	1

Client Sample ID: P93C-ROX-041923
Date Collected: 04/19/23 12:55
Date Received: 04/20/23 12:52

Lab Sample ID: 400-236455-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/24/23 08:27	04/25/23 19:22	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/24/23 08:27	04/25/23 19:22	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 19:22	1
Phenol	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 19:22	1
Pyridine	ND		10	3.2	ug/L		04/24/23 08:27	04/25/23 19:22	1
Quinoline	ND		10	4.5	ug/L		04/24/23 08:27	04/25/23 19:22	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/24/23 08:27	04/25/23 19:22	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*04/24/23 08:27*	*04/25/23 19:22*	*1*
2-Fluorophenol	*37*		*13 - 113*	*04/24/23 08:27*	*04/25/23 19:22*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/24/23 08:27*	*04/25/23 19:22*	*1*
Phenol-d5	*63*		*17 - 127*	*04/24/23 08:27*	*04/25/23 19:22*	*1*
Terphenyl-d14	*84*		*44 - 149*	*04/24/23 08:27*	*04/25/23 19:22*	*1*
2,4,6-Tribromophenol	*75*		*26 - 150*	*04/24/23 08:27*	*04/25/23 19:22*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/23 10:17	04/27/23 03:22	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 03:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/26/23 10:17*	*04/27/23 03:22*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236455-1	TB-ROX-041923-8260-SS	98	99	96
400-236455-3	P93A-ROX-041923-EB	98	96	95
400-236455-4	P93A-ROX-041923	98	97	95
400-236455-5	P93C-ROX-041923	98	99	96
LCS 400-622811/1002	Lab Control Sample	96	96	97
MB 400-622811/4	Method Blank	97	97	96

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236455-3	P93A-ROX-041923-EB	81	23	79	55	93	64
400-236455-4	P93A-ROX-041923	85	23	83	58	94	72
400-236455-5	P93C-ROX-041923	78	37	76	63	84	75
LCS 400-621966/2-A	Lab Control Sample	84	32	77	61	90	76
LCS 400-621966/4-A	Lab Control Sample	79	19	76	44	91	48
LCSD 400-621966/3-A	Lab Control Sample Dup	89	14	77	52	93	81
LCSD 400-621966/5-A	Lab Control Sample Dup	101	49	92	78	115	30
MB 400-621966/1-A	Method Blank	87	10 S1-	81	40	100	53

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236455-3	P93A-ROX-041923-EB	120	112	173 S1+
400-236455-4	P93A-ROX-041923	117	109	161 S1+
400-236455-5	P93C-ROX-041923	110	116	167 S1+
LCS 400-621966/2-A	Lab Control Sample	87	97	128
LCSD 400-621966/3-A	Lab Control Sample Dup	88	96	122
MB 400-621966/1-A	Method Blank	130 S1+	128	209 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-236455-2	TB-ROX-041923-8011-SS	113
400-236455-3	P93A-ROX-041923-EB	119
400-236455-4	P93A-ROX-041923	81
400-236455-5	P93C-ROX-041923	113
LCS 400-622327/2-A	Lab Control Sample	93
LCSD 400-622327/3-A	Lab Control Sample Dup	108
MB 400-622327/1-A	Method Blank	99

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: TB-ROX-041923-8260-SS
Lab Sample ID: 400-236455-1
Date Collected: 04/19/23 12:00
Matrix: Water
Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 16:15	AGW	EET PEN

Client Sample ID: TB-ROX-041923-8011-SS
Lab Sample ID: 400-236455-2
Date Collected: 04/19/23 12:00
Matrix: Water
Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 02:20	PG	EET PEN

Client Sample ID: P93A-ROX-041923-EB
Lab Sample ID: 400-236455-3
Date Collected: 04/19/23 08:20
Matrix: Water
Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 16:40	AGW	EET PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 18:38	S1B	EET PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 16:44	S1B	EET PEN
Total/NA	Prep	8011			35.8 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 02:41	PG	EET PEN

Client Sample ID: P93A-ROX-041923
Lab Sample ID: 400-236455-4
Date Collected: 04/19/23 11:50
Matrix: Water
Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 17:04	AGW	EET PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 19:00	S1B	EET PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 17:01	S1B	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 03:01	PG	EET PEN

Client Sample ID: P93C-ROX-041923
Lab Sample ID: 400-236455-5
Date Collected: 04/19/23 12:55
Matrix: Water
Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 17:29	AGW	EET PEN
Total/NA	Prep	3520C			250.6 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 19:22	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: P93C-ROX-041923

Lab Sample ID: 400-236455-5

Date Collected: 04/19/23 12:55

Matrix: Water

Date Received: 04/20/23 12:52

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250.6 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 17:18	S1B	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 03:22	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621966/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:04	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 15:17	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622327/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 00:58	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622811/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 12:09	AGW	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-621966/2-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:10	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:34	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621966/4-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:26	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622327/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 01:19	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622811/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622811	04/29/23 11:11	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:32	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:52	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:48	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622327/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 01:39	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

GC/MS VOA

Analysis Batch: 622811

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236455-1	TB-ROX-041923-8260-SS	Total/NA	Water	8260B	
400-236455-3	P93A-ROX-041923-EB	Total/NA	Water	8260B	
400-236455-4	P93A-ROX-041923	Total/NA	Water	8260B	
400-236455-5	P93C-ROX-041923	Total/NA	Water	8260B	
MB 400-622811/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622811/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236455-3	P93A-ROX-041923-EB	Total/NA	Water	3520C	
400-236455-4	P93A-ROX-041923	Total/NA	Water	3520C	
400-236455-5	P93C-ROX-041923	Total/NA	Water	3520C	
MB 400-621966/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 622176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236455-3	P93A-ROX-041923-EB	Total/NA	Water	8270D LL	621966
400-236455-4	P93A-ROX-041923	Total/NA	Water	8270D LL	621966
400-236455-5	P93C-ROX-041923	Total/NA	Water	8270D LL	621966
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D LL	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	621966

Analysis Batch: 622209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236455-3	P93A-ROX-041923-EB	Total/NA	Water	8270D	621966
400-236455-4	P93A-ROX-041923	Total/NA	Water	8270D	621966
400-236455-5	P93C-ROX-041923	Total/NA	Water	8270D	621966
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966

GC Semi VOA

Prep Batch: 622327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236455-2	TB-ROX-041923-8011-SS	Total/NA	Water	8011	
400-236455-3	P93A-ROX-041923-EB	Total/NA	Water	8011	
400-236455-4	P93A-ROX-041923	Total/NA	Water	8011	
400-236455-5	P93C-ROX-041923	Total/NA	Water	8011	
MB 400-622327/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622327/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236455-1

GC Semi VOA

Analysis Batch: 622352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236455-2	TB-ROX-041923-8011-SS	Total/NA	Water	8011	622327
400-236455-3	P93A-ROX-041923-EB	Total/NA	Water	8011	622327
400-236455-4	P93A-ROX-041923	Total/NA	Water	8011	622327
400-236455-5	P93C-ROX-041923	Total/NA	Water	8011	622327
MB 400-622327/1-A	Method Blank	Total/NA	Water	8011	622327
LCS 400-622327/2-A	Lab Control Sample	Total/NA	Water	8011	622327
LCSD 400-622327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622327

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622811/4
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/29/23 12:09	1
Acrolein	ND		20	3.3	ug/L			04/29/23 12:09	1
Acrylonitrile	ND		10	2.8	ug/L			04/29/23 12:09	1
Benzene	ND		1.0	0.13	ug/L			04/29/23 12:09	1
Bromobenzene	ND		1.0	0.54	ug/L			04/29/23 12:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/29/23 12:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Bromoform	ND		5.0	0.25	ug/L			04/29/23 12:09	1
Bromomethane	ND		1.0	0.98	ug/L			04/29/23 12:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/29/23 12:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/29/23 12:09	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/29/23 12:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/29/23 12:09	1
Chloroethane	ND		1.0	0.76	ug/L			04/29/23 12:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/29/23 12:09	1
Chloroform	ND		1.0	1.0	ug/L			04/29/23 12:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/29/23 12:09	1
Chloromethane	ND		1.0	0.32	ug/L			04/29/23 12:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/29/23 12:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/29/23 12:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/29/23 12:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/29/23 12:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/29/23 12:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/29/23 12:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/29/23 12:09	1
2-Hexanone	ND		25	1.4	ug/L			04/29/23 12:09	1
Isopropy benzene	ND		1.0	0.53	ug/L			04/29/23 12:09	1
Methylene bromide	ND		5.0	0.22	ug/L			04/29/23 12:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/29/23 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/29/23 12:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/29/23 12:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/29/23 12:09	1
Naphthalene	ND		5.0	3.0	ug/L			04/29/23 12:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/29/23 12:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/29/23 12:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/29/23 12:09	1
o-Xylene	ND		5.0	0.60	ug/L			04/29/23 12:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/29/23 12:09	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622811/4
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/29/23 12:09	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/29/23 12:09	1
Styrene	ND		1.0	1.0	ug/L			04/29/23 12:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/29/23 12:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/29/23 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/29/23 12:09	1
Toluene	ND		1.0	0.41	ug/L			04/29/23 12:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/29/23 12:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/29/23 12:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/29/23 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/29/23 12:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/29/23 12:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/29/23 12:09	1
Trichloroethene	ND		1.0	0.15	ug/L			04/29/23 12:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/29/23 12:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/29/23 12:09	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			04/29/23 12:09	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			04/29/23 12:09	1
Vinyl acetate	ND		25	0.93	ug/L			04/29/23 12:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/29/23 12:09	1
Xylenes, Total	ND		10	1.6	ug/L			04/29/23 12:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/29/23 12:09*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/29/23 12:09*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/29/23 12:09*	*1*

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	158		ug/L		79	43 - 160
Acrolein	500	472		ug/L		94	38 - 160
Acrylonitrile	500	418		ug/L		84	64 - 142
Benzene	50.0	42.4		ug/L		85	70 - 130
Bromobenzene	50.0	42.3		ug/L		85	70 - 132
Bromochloromethane	50.0	44.7		ug/L		89	70 - 130
Bromodichloromethane	50.0	39.7		ug/L		79	67 - 133
Bromoform	50.0	42.1		ug/L		84	57 - 140
Bromomethane	50.0	41.9		ug/L		84	10 - 160
2-Butanone (MEK)	200	163		ug/L		82	61 - 145
Carbon disulfide	50.0	43.2		ug/L		86	61 - 137
Carbon tetrachloride	50.0	38.2		ug/L		76	61 - 137
Chlorobenzene	50.0	42.2		ug/L		84	70 - 130
Dibromochloromethane	50.0	41.3		ug/L		83	67 - 135
Chloroethane	50.0	39.2		ug/L		78	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	49.8		ug/L		100	10 - 160
Chloroform	50.0	38.6		ug/L		77	69 - 130
1-Chlorohexane	50.0	37.2		ug/L		74	69 - 130
Chloromethane	50.0	39.8		ug/L		80	58 - 137
cis-1,2-Dichloroethene	50.0	38.4		ug/L		77	68 - 130
cis-1,3-Dichloropropene	50.0	42.9		ug/L		86	69 - 132
1,2-Dichlorobenzene	50.0	44.1		ug/L		88	67 - 130
1,3-Dichlorobenzene	50.0	44.1		ug/L		88	70 - 130
1,4-Dichlorobenzene	50.0	44.9		ug/L		90	70 - 130
Dichlorodifluoromethane	50.0	36.1		ug/L		72	41 - 146
1,1-Dichloroethane	50.0	40.1		ug/L		80	70 - 130
1,2-Dichloroethane	50.0	36.3		ug/L		73	69 - 130
1,1-Dichloroethene	50.0	45.3		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	41.2		ug/L		82	70 - 130
1,3-Dichloropropane	50.0	42.3		ug/L		85	70 - 130
2,2-Dichloropropane	50.0	40.1		ug/L		80	52 - 135
1,1-Dichloropropene	50.0	40.4		ug/L		81	70 - 130
Ethylbenzene	50.0	40.1		ug/L		80	70 - 130
Ethyl methacrylate	50.0	41.4		ug/L		83	68 - 130
Hexachlorobutadiene	50.0	44.8		ug/L		90	53 - 140
2-Hexanone	200	152		ug/L		76	65 - 137
Isopropy benzene	50.0	40.3		ug/L		81	70 - 130
Methylene bromide	50.0	42.3		ug/L		85	70 - 130
Methylene Chloride	50.0	46.3		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	162		ug/L		81	69 - 138
Methyl tert-butyl ether	50.0	43.2		ug/L		86	66 - 130
m-Xylene & p-Xylene	50.0	40.1		ug/L		80	70 - 130
Naphthalene	50.0	57.7		ug/L		115	47 - 149
n-Butylbenzene	50.0	43.1		ug/L		86	67 - 130
N-Propylbenzene	50.0	41.6		ug/L		83	70 - 130
o-Chlorotoluene	50.0	39.6		ug/L		79	70 - 130
o-Xylene	50.0	40.0		ug/L		80	70 - 130
p-Chlorotoluene	50.0	40.8		ug/L		82	70 - 130
p-Isopropyltoluene	50.0	41.7		ug/L		83	65 - 130
sec-Butylbenzene	50.0	41.2		ug/L		82	66 - 130
Styrene	50.0	41.5		ug/L		83	70 - 130
tert-Butylbenzene	50.0	43.7		ug/L		87	64 - 139
1,1,1,2-Tetrachloroethane	50.0	41.5		ug/L		83	67 - 131
1,1,2,2-Tetrachloroethane	50.0	42.7		ug/L		85	70 - 131
Tetrachloroethene	50.0	41.4		ug/L		83	65 - 130
Toluene	50.0	41.1		ug/L		82	70 - 130
trans-1,2-Dichloroethene	50.0	42.4		ug/L		85	70 - 130
trans-1,3-Dichloropropene	50.0	40.7		ug/L		81	63 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/L		103	60 - 138
1,2,4-Trichlorobenzene	50.0	50.5		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	37.7		ug/L		75	68 - 130
1,1,2-Trichloroethane	50.0	41.0		ug/L		82	70 - 130
Trichloroethene	50.0	42.1		ug/L		84	70 - 130
Trichlorofluoromethane	50.0	41.3		ug/L		83	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622811/1002
Matrix: Water
Analysis Batch: 622811

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2,3-Trichloropropane			50.0	41.2		ug/L		82	70 - 130		
1,2,4-Trimethy benzene			50.0	42.5		ug/L		85	70 - 130		
1,3,5-Trimethy benzene			50.0	41.2		ug/L		82	69 - 130		
Vinyl acetate			100	93.9		ug/L		94	26 - 160		
Vinyl chloride			50.0	42.7		ug/L		85	59 - 136		
Xylenes, Total			100	80.1		ug/L		80	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzenethiol	ND		10	1.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzoic acid	ND		30	7.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzyl alcohol	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/24/23 08:27	04/25/23 16:04	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloroaniline	ND		10	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chlorophenol	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenzofuran	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Diethyl phthalate	0.490	J	10	0.24	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dimethyl phthalate	0.268	J	10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
1,4-Dioxane	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachloroethane	ND		10	4.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Indene	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Isophorone	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Methylphenol	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitroaniline	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
3-Nitroaniline	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitroaniline	ND		10	1.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Nitrobenzene	ND		10	0.13	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitrophenol	ND		10	5.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitrophenol	ND		10	2.1	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
Phenol	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pyridine	ND		10	3.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Quinoline	ND		10	4.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Phenol-d5	*40*		*17 - 127*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2,4,6-Tribromophenol	*53*		*26 - 150*	*04/24/23 08:27*	*04/25/23 16:04*	*1*

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	84.3		ug/L		70	21 - 120
Benzoic acid	554	182		ug/L		33	10 - 144
Benzyl alcohol	120	80.7		ug/L		67	28 - 120
Bis(2-chloroethoxy)methane	120	83.0		ug/L		69	47 - 120
Bis(2-chloroethyl)ether	120	85.6		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	92.6		ug/L		77	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
Butyl benzyl phthalate	120	112		ug/L		94	54 - 133
4-Chloroaniline	120	102		ug/L		85	26 - 120
4-Chloro-3-methylphenol	120	90.0		ug/L		75	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	98.8		ug/L		82	52 - 121
2-Chlorophenol	120	66.2		ug/L		55	40 - 120
4-Chlorophenyl phenyl ether	120	103		ug/L		86	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	98.6		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	210		ug/L		131	36 - 132
2,4-Dichlorophenol	120	83.5		ug/L		70	49 - 120
Diethyl phthalate	120	109		ug/L		90	50 - 137
2,4-Dimethylphenol	120	77.7		ug/L		65	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	115		ug/L		96	58 - 126
4,6-Dinitro-ortho-cresol	240	195		ug/L		81	23 - 148
2,4-Dinitrophenol	240	217		ug/L		90	10 - 150
2,4-Dinitrotoluene	120	103		ug/L		86	54 - 142
2,6-Dinitrotoluene	120	106		ug/L		88	55 - 130
Di-n-octyl phthalate	120	109		ug/L		91	57 - 138
1,4-Dioxane	120	63.0		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	104		ug/L		87	45 - 124
Hexachlorobenzene	120	104		ug/L		87	52 - 129
Hexachlorocyclopentadiene	120	65.3		ug/L		54	10 - 134
Hexachloroethane	120	93.5		ug/L		78	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	86.2		ug/L		72	48 - 120
2-Methylphenol	120	94.1		ug/L		78	46 - 124
3 & 4 Methylphenol	120	92.1		ug/L		77	45 - 120
2-Nitroaniline	120	113		ug/L		94	51 - 145
3-Nitroaniline	120	102		ug/L		85	37 - 127
4-Nitroaniline	120	110		ug/L		92	36 - 137
Nitrobenzene	120	86.3		ug/L		72	45 - 120
2-Nitrophenol	120	81.4		ug/L		68	40 - 124
4-Nitrophenol	240	289		ug/L		120	23 - 146
N-Nitrosodimethylamine	120	89.2		ug/L		74	29 - 137
N-Nitrosodi-n-propylamine	120	103		ug/L		86	45 - 120
N-Nitrosodiphenylamine	119	107		ug/L		90	54 - 120
Pentachlorophenol	240	148		ug/L		62	31 - 130
Phenol	120	67.7		ug/L		56	11 - 120
Pyridine	240	132		ug/L		55	16 - 120
Quinoline	120	99.3		ug/L		83	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	89.5		ug/L		75	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*61*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*76*		*26 - 150*

Lab Sample ID: LCS 400-621966/4-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.71	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*91*		*44 - 149*
2,4,6-Tribromophenol	*48*		*26 - 150*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	102		ug/L		85	21 - 120	19	30
Benzoic acid			554	198		ug/L		36	10 - 144	8	30
Benzyl alcohol			120	86.0		ug/L		72	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	90.0		ug/L		75	47 - 120	8	30
Bis(2-chloroethyl)ether			120	86.3		ug/L		72	44 - 120	1	30
bis (2-chloroisopropyl) ether			120	97.2		ug/L		81	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	116		ug/L		97	52 - 147	7	30
4-Bromophenyl phenyl ether			120	121		ug/L		101	54 - 122	11	30
Butyl benzyl phthalate			120	117		ug/L		98	54 - 133	4	30
4-Chloroaniline			120	111		ug/L		93	26 - 120	9	30
4-Chloro-3-methylphenol			120	98.7		ug/L		82	48 - 131	9	30
2-Chloronaphthalene			120	110		ug/L		92	52 - 121	11	30
2-Chlorophenol			120	50.6		ug/L		42	40 - 120	27	30
4-Chlorophenyl phenyl ether			120	113		ug/L		94	56 - 125	9	30
Dibenz[a,h]acridine			120	113		ug/L		95	31 - 150	12	30
Dibenzofuran			120	108		ug/L		90	56 - 122	9	30
3,3'-Dichlorobenzidine			160	225	*+	ug/L		141	36 - 132	7	30
2,4-Dichlorophenol			120	84.0		ug/L		70	49 - 120	1	30
Diethyl phthalate			120	116		ug/L		97	50 - 137	7	30
2,4-Dimethylphenol			120	83.3		ug/L		69	48 - 120	7	30
Dimethyl phthalate			120	114		ug/L		95	57 - 124	10	30
Di-n-butyl phthalate			120	125		ug/L		104	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	226		ug/L		94	23 - 148	15	30
2,4-Dinitrophenol			240	228		ug/L		95	10 - 150	5	30
2,4-Dinitrotoluene			120	112		ug/L		94	54 - 142	9	30
2,6-Dinitrotoluene			120	115		ug/L		96	55 - 130	8	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	115		ug/L		95	57 - 138	5	30
1,4-Dioxane			120	64.3		ug/L		54	31 - 120	2	30
1,2-Diphenylhydrazine (as Azobenzene)			120	113		ug/L		94	45 - 124	8	30
Hexachlorobenzene			120	115		ug/L		96	52 - 129	10	30
Hexachlorocyclopentadiene			120	73.4		ug/L		61	10 - 134	12	30
Hexachloroethane			120	97.7		ug/L		81	20 - 120	4	30
Indene			120	95.2		ug/L		79	49 - 120	7	30
Isophorone			120	91.6		ug/L		76	48 - 120	6	30
2-Methylphenol			120	99.5		ug/L		83	46 - 124	6	30
3 & 4 Methylphenol			120	96.0		ug/L		80	45 - 120	4	30
2-Nitroaniline			120	122		ug/L		102	51 - 145	8	30
3-Nitroaniline			120	110		ug/L		92	37 - 127	8	30
4-Nitroaniline			120	124		ug/L		103	36 - 137	12	30
Nitrobenzene			120	92.8		ug/L		77	45 - 120	7	30
2-Nitrophenol			120	85.2		ug/L		71	40 - 124	5	30
4-Nitrophenol			240	314		ug/L		131	23 - 146	8	30
N-Nitrosodimethylamine			120	94.0		ug/L		78	29 - 137	5	30
N-Nitrosodi-n-propylamine			120	110		ug/L		92	45 - 120	6	30
N-Nitrosodiphenylamine			119	120		ug/L		101	54 - 120	11	30
Pentachlorophenol			240	173		ug/L		72	31 - 130	15	30
Phenol			120	57.7		ug/L		48	11 - 120	16	30
Pyridine			240	140		ug/L		58	16 - 120	5	30
Quinoline			120	109		ug/L		91	49 - 130	9	30
2,4,5-Trichlorophenol			120	103		ug/L		86	51 - 136	10	30
2,4,6-Trichlorophenol			120	100		ug/L		84	50 - 127	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*14*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*81*		*26 - 150*

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.49	J *-	ug/L		3	10 - 120	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*101*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*92*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	30		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 15:17	1
Anthracene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/24/23 08:27	04/25/23 15:17	1
Chrysene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluoranthene	ND		0.20	0.068	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 15:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 15:17	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/24/23 08:27	04/25/23 15:17	1
Phenanthrene	ND		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 15:17	1
Pyrene	ND		0.20	0.040	ug/L		04/24/23 08:27	04/25/23 15:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	130	S1+	15 - 122	04/24/23 08:27	04/25/23 15:17	1
Nitrobenzene-d5	128		19 - 130	04/24/23 08:27	04/25/23 15:17	1
Terphenyl-d14	209	S1+	33 - 138	04/24/23 08:27	04/25/23 15:17	1

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	133		ug/L		111	44 - 120
Anthracene	120	144		ug/L		120	49 - 120
Benzo[a]anthracene	120	151		ug/L		126	61 - 135
Benzo[a]pyrene	120	138		ug/L		115	52 - 120
Benzo[b]fluoranthene	120	139		ug/L		115	53 - 134
Benzo[g,h,i]perylene	120	141		ug/L		117	47 - 133
Benzo[k]fluoranthene	120	130		ug/L		109	57 - 134
Chrysene	120	136		ug/L		113	55 - 122
Dibenz(a,h)anthracene	120	143		ug/L		119	48 - 146
Fluoranthene	120	132		ug/L		110	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	120	131		ug/L		110	45 - 125
Indeno[1,2,3-cd]pyrene	120	133		ug/L		111	43 - 142
1-Methylnaphthalene	120	121		ug/L		101	41 - 120
2-Methylnaphthalene	120	115		ug/L		96	32 - 124
Phenanthrene	120	129		ug/L		108	48 - 120
Pyrene	120	146		ug/L		122	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*15 - 122*
Nitrobenzene-d5	*97*		*19 - 130*
Terphenyl-d14	*128*		*33 - 138*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	126		ug/L		105	41 - 120	9	56
Acenaphthylene	120	137		ug/L		114	44 - 120	3	56
Anthracene	120	145	*+	ug/L		121	49 - 120	1	51
Benzo[a]anthracene	120	149		ug/L		125	61 - 135	1	49
Benzo[a]pyrene	120	141		ug/L		118	52 - 120	2	50
Benzo[b]fluoranthene	120	149		ug/L		124	53 - 134	7	54
Benzo[g,h,i]perylene	120	136		ug/L		113	47 - 133	3	50
Benzo[k]fluoranthene	120	133		ug/L		111	57 - 134	2	52
Chrysene	120	143		ug/L		119	55 - 122	5	50
Dibenz(a,h)anthracene	120	145		ug/L		121	48 - 146	2	50
Fluoranthene	120	137		ug/L		114	54 - 128	4	52
Fluorene	120	140		ug/L		117	45 - 125	7	56
Indeno[1,2,3-cd]pyrene	120	130		ug/L		108	43 - 142	3	51
1-Methylnaphthalene	120	124		ug/L		104	41 - 120	3	55
2-Methylnaphthalene	120	119		ug/L		99	32 - 124	3	57
Phenanthrene	120	134		ug/L		112	48 - 120	4	56
Pyrene	120	145		ug/L		121	48 - 132	1	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*
Nitrobenzene-d5	*96*		*19 - 130*
Terphenyl-d14	*122*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622327/1-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/23 10:17	04/27/23 00:58	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-622327/1-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 00:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*04/26/23 10:17*	*04/27/23 00:58*	*1*

Lab Sample ID: LCS 400-622327/2-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622327

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromoethane			0.101	0.116		ug/L		115	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*51 - 149*

Lab Sample ID: LCSD 400-622327/3-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622327

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromoethane			0.101	0.128		ug/L		127	60 - 140	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:			Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
☐ SGW FDG	☐ PIPELINE	☐ RETAIL	Melissa Remiger	25278	DATE: 4/19/2023
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES	PO #	GSAP Project ID	PAGE: 1 of 1
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES		60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

SPLIT REPORT

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-236455 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	
	TB-ROX-041923-8260-SS	4/19/2023	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-041923-8011-SS	4/19/2023	0000	Water	2					2		X			SPLIT REPORT
	P93A-ROX-41923-EB	4/19/2023	0820	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93A-ROX-41923	4/19/2023	1150	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93C-ROX-41923	4/19/2023	1255	Water	6			2		8	X	X	X	X	SPLIT REPORT

MM 4/19/23

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 5293 4337 5294, 5293 4337 5309	Date: 4/19/2023	Time: 1600
Relinquished by: (Signature)	Received by: (Signature) 1.7, 5-6°C (BH)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-20-23	Time: 1252.

Version: 13Oct22

CUSTODY SEALS: 1599720, 1599721, 1599722, 1599723

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-236455-1

Login Number: 236455 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Whitley, Adrian

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7, 5.6°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236455-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236486-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/31/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-042023-8260-SS	T12-ROX-042023
TB-ROX-042023-8011-SS	P59-ROX-042023
P56-ROX-042023	P93B-ROX-042023

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 diethyl phthalate and dimethyl phthalate were detected in method blank MB 400-621966/1-A. SVOC, PAH and 1,2-dibromo-3-chloropropane LCS/LCSD recoveries were outside evaluation criteria. Several SVOC and PAH surrogate recoveries were outside criteria in several investigative and quality control samples. The continuing calibration verification (CCV) for chloroform was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-621966/1-A	SVOCs	Diethyl phthalate	0.490 µg/L
MB 400-621966/1-A	SVOCs	Dimethyl phthalate	0.268 µg/L

Qualifications due to blank contamination are included in the table below. Analytical

data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P56-ROX-042023	SVOCs	Diethyl phthalate	-	**U**
P93B-ROX-042023	SVOCs	Diethyl 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
LCS/LCSD 400-621966/4-A/5-A	SVOCs	Benzenethiol	**3/3**	6	10-120/30
LCS/LCSD 400-621966/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	131/**141**	7	36-132/30
LCS/LCSD 400-621966/2-A/3-A	PAHs	Anthracene	120/**121**	1	49-120/51
LCS/LCSD 400-622327/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**160/167**	5	60-140/30

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P56-ROX-042023	SVOCs	Benzenethiol	**UJ**
T12-ROX-042023	SVOCs	Benzenethiol	**UJ**
P59-ROX-042023	SVOCs	Benzenethiol	**UJ**
P93B-ROX-042023	SVOCs	Benzenethiol	**UJ**
P56-ROX-042023	PAHs	Anthracene	**J**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
T12-ROX-042023	SVOCs	2-Fluorobiphenyl	**4**	13-113
MB 400-621966/1-A	SVOCs	2-Fluorobiphenyl	**10**	13-113
P56-ROX-042023	PAHs	Terphenyl-d_{14}	**153**	33-138
T12-ROX-042023	PAHs	Terphenyl-d_{14}	**180**	33-138
P93B-ROX-042023	PAHs	Terphenyl-d_{14}	**155**	33-138

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-621966/1-A	PAHs	Terphenyl-d_{14}	**209**	33-138
MB 400-621966/1-A	PAHs	2-Fluorobiphenyl	**130**	15-122

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Equipment blanks and method blanks are quality control samples and do not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

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

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification (CCV) for chloroform was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-042023	VOCs	Chloroform	**UJ**
P59-ROX-042023	VOCs	Chloroform	**UJ**
T12-ROX-042023	VOCs	Chloroform	**UJ**
P56-ROX-042023	VOCs	Chloroform	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 5/18/2023 3:56:43 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236486-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 9
Definitions 28
Surrogate Summary 29
Method Summary 31
Chronicle 32
QC Association 36
QC Sample Results 38
Chain of Custody 49
Receipt Checklists 51
Certification Summary 52

Job ID: 400-236486-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236486-1

Receipt
The samples were received on 4/21/2023 8:51 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.0°C and 0.8°C

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-622922 recovered outside acceptance criteria, low biased, for Chloroform. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-042023-8260-SS (400-236486-1), P56-ROX-042023 (400-236486-3), T12-ROX-042023 (400-236486-4), P59-ROX-042023 (400-236486-5) and P93B-ROX-042023 (400-236486-6). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: T12-ROX-042023 (400-236486-4), P59-ROX-042023 (400-236486-5) and P93B-ROX-042023 (400-236486-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270D: The method blank for preparation batch 400-621966 and analytical batch 400-622209 contained Diethyl phthalate and Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622209 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-622209 recovered above the upper control limit for 4-Nitrophenol and 2-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621966 and analytical batch 400-622209 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: T12-ROX-042023 (400-236486-4) and (MB 400-621966/1-A). These results have been reported and qualified.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: P59-ROX-042023 (400-236486-5). Elevated reporting limits (RLs) are provided.

Method 8270D_LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: P56-ROX-042023 (400-236486-3), T12-ROX-042023 (400-236486-4) and P93B-ROX-042023 (400-236486-6). These results have been reported and qualified.

Job ID: 400-236486-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D_LL: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622176 recovered outside control limits for the following analytes: Anthracene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D_LL: The surrogate recovery for the blank associated with preparation batch 400-621966 and analytical batch 400-622176 was outside the upper control limits.

Method 8270D_LL: The following sample was diluted due to the nature of the sample matrix: P59-ROX-042023 (400-236486-5). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-622352 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-622327 and analytical batch 400-622352 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236486-1	TB-ROX-042023-8260-SS	Water	04/20/23 12:00	04/21/23 08:51
400-236486-2	TB-ROX-042023-8011-SS	Water	04/20/23 12:00	04/21/23 08:51
400-236486-3	P56-ROX-042023	Water	04/20/23 09:20	04/21/23 08:51
400-236486-4	T12-ROX-042023	Water	04/20/23 10:30	04/21/23 08:51
400-236486-5	P59-ROX-042023	Water	04/20/23 11:50	04/21/23 08:51
400-236486-6	P93B-ROX-042023	Water	04/20/23 13:05	04/21/23 08:51

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: TB-ROX-042023-8260-SS — Lab Sample ID: 400-236486-1

No Detections.

Client Sample ID: TB-ROX-042023-8011-SS — Lab Sample ID: 400-236486-2

No Detections.

Client Sample ID: P56-ROX-042023 — Lab Sample ID: 400-236486-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.75	J	1.0	0.13	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	4.7	J	25	2.6	ug/L	1		8260B	Total/NA
Ethylbenzene	6.1		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	20		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	70		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	5.9		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	1.4		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	24		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	1.6	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.3		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.9		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	2.7		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	35		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	11		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	72		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	0.54		0.20	0.032	ug/L	1		8270D LL	Total/NA
Anthracene	0.14	J *+ J	0.20	0.032	ug/L	1		8270D LL	Total/NA
Fluorene	0.52		0.20	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	19		0.20	0.075	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	18		0.20	0.061	ug/L	1		8270D LL	Total/NA
Phenanthrene	1.1		0.20	0.036	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.47	J	10	0.17	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.31	J B U	10	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: T12-ROX-042023 — Lab Sample ID: 400-236486-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1200		10	1.3	ug/L	10		8260B	Total/NA
Ethylbenzene	12		10	5.0	ug/L	10		8260B	Total/NA
Methyl tert-butyl ether	2.2	J	10	2.2	ug/L	10		8260B	Total/NA
m-Xylene & p-Xylene	40	J	50	6.3	ug/L	10		8260B	Total/NA
Toluene	26		10	4.1	ug/L	10		8260B	Total/NA
1,3,5-Trimethy benzene	9.4	J	10	5.6	ug/L	10		8260B	Total/NA
Xylenes, Total	44	J	100	16	ug/L	10		8260B	Total/NA
Acenaphthene	0.23		0.20	0.032	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	22		0.20	0.075	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	31		0.20	0.061	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.48		0.20	0.036	ug/L	1		8270D LL	Total/NA
Indene	1.0	J	10	1.0	ug/L	1		8270D	Total/NA
Phenol	36		10	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: P59-ROX-042023 — Lab Sample ID: 400-236486-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1400		10	1.3	ug/L	10		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P59-ROX-042023 (Continued)

Lab Sample ID: 400-236486-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	84		10	5.0	ug/L	10		8260B	Total/NA
Isopropy benzene	28		10	5.3	ug/L	10		8260B	Total/NA
m-Xylene & p-Xylene	88		50	6.3	ug/L	10		8260B	Total/NA
Naphthalene	77		50	30	ug/L	10		8260B	Total/NA
N-Propylbenzene	43		10	6.9	ug/L	10		8260B	Total/NA
Toluene	62		10	4.1	ug/L	10		8260B	Total/NA
1,2,4-Trimethy benzene	32		10	8.2	ug/L	10		8260B	Total/NA
1,3,5-Trimethy benzene	19		10	5.6	ug/L	10		8260B	Total/NA
Xylenes, Total	91	J	100	16	ug/L	10		8260B	Total/NA
1-Methylnaphthalene	9.9		0.99	0.37	ug/L	5		8270D LL	Total/NA
2-Methylnaphthalene	14		0.99	0.30	ug/L	5		8270D LL	Total/NA
Phenol	16	J	20	5.2	ug/L	2		8270D	Total/NA

Client Sample ID: P93B-ROX-042023

Lab Sample ID: 400-236486-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	400000		2000	260	ug/L	2000		8260B	Total/NA
Bis(2-ethylhexyl) phthalate	5.4	J	9.9	4.9	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.33	J B U	9.9	0.24	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	3.6	J	9.9	3.5	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	1.0	J	20	0.38	ug/L	1		8270D	Total/NA
Phenol	380		9.9	2.6	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: TB-ROX-042023-8260-SS
Date Collected: 04/20/23 12:00
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			05/01/23 15:40	1
Acrolein	ND		20	3.3	ug/L			05/01/23 15:40	1
Acrylonitrile	ND		10	2.8	ug/L			05/01/23 15:40	1
Benzene	ND		1.0	0.13	ug/L			05/01/23 15:40	1
Bromobenzene	ND		1.0	0.54	ug/L			05/01/23 15:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			05/01/23 15:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			05/01/23 15:40	1
Bromoform	ND		5.0	0.25	ug/L			05/01/23 15:40	1
Bromomethane	ND		1.0	0.98	ug/L			05/01/23 15:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			05/01/23 15:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			05/01/23 15:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			05/01/23 15:40	1
Chlorobenzene	ND		1.0	0.15	ug/L			05/01/23 15:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			05/01/23 15:40	1
Chloroethane	ND		1.0	0.76	ug/L			05/01/23 15:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			05/01/23 15:40	1
Chloroform	ND		1.0	1.0	ug/L			05/01/23 15:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			05/01/23 15:40	1
Chloromethane	ND		1.0	0.32	ug/L			05/01/23 15:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			05/01/23 15:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			05/01/23 15:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			05/01/23 15:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			05/01/23 15:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			05/01/23 15:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			05/01/23 15:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			05/01/23 15:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			05/01/23 15:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			05/01/23 15:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 15:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 15:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 15:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			05/01/23 15:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			05/01/23 15:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			05/01/23 15:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			05/01/23 15:40	1
2-Hexanone	ND		25	1.4	ug/L			05/01/23 15:40	1
Isopropy benzene	ND		1.0	0.53	ug/L			05/01/23 15:40	1
Methylene bromide	ND		5.0	0.22	ug/L			05/01/23 15:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			05/01/23 15:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			05/01/23 15:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			05/01/23 15:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			05/01/23 15:40	1
Naphthalene	ND		5.0	3.0	ug/L			05/01/23 15:40	1
n-Butylbenzene	ND		1.0	0.76	ug/L			05/01/23 15:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 15:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			05/01/23 15:40	1
o-Xylene	ND		5.0	0.60	ug/L			05/01/23 15:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			05/01/23 15:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			05/01/23 15:40	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: TB-ROX-042023-8260-SS
Date Collected: 04/20/23 12:00
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			05/01/23 15:40	1
Styrene	ND		1.0	1.0	ug/L			05/01/23 15:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			05/01/23 15:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			05/01/23 15:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			05/01/23 15:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			05/01/23 15:40	1
Toluene	ND		1.0	0.41	ug/L			05/01/23 15:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			05/01/23 15:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			05/01/23 15:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			05/01/23 15:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			05/01/23 15:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			05/01/23 15:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			05/01/23 15:40	1
Trichloroethene	ND		1.0	0.15	ug/L			05/01/23 15:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			05/01/23 15:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			05/01/23 15:40	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			05/01/23 15:40	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			05/01/23 15:40	1
Vinyl acetate	ND		25	0.93	ug/L			05/01/23 15:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			05/01/23 15:40	1
Xylenes, Total	ND		10	1.6	ug/L			05/01/23 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*05/01/23 15:40*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*05/01/23 15:40*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*05/01/23 15:40*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: TB-ROX-042023-8011-SS
Date Collected: 04/20/23 12:00
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/23 10:17	04/27/23 03:42	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 03:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*04/26/23 10:17*	*04/27/23 03:42*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: P56-ROX-042023
Date Collected: 04/20/23 09:20
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			05/01/23 12:47	1
Acrolein	ND		20	3.3	ug/L			05/01/23 12:47	1
Acrylonitrile	ND		10	2.8	ug/L			05/01/23 12:47	1
Benzene	**0.75**	**J**	1.0	0.13	ug/L			05/01/23 12:47	1
Bromobenzene	ND		1.0	0.54	ug/L			05/01/23 12:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			05/01/23 12:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			05/01/23 12:47	1
Bromoform	ND		5.0	0.25	ug/L			05/01/23 12:47	1
Bromomethane	ND		1.0	0.98	ug/L			05/01/23 12:47	1
2-Butanone (MEK)	**4.7**	**J**	25	2.6	ug/L			05/01/23 12:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			05/01/23 12:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			05/01/23 12:47	1
Chlorobenzene	ND		1.0	0.15	ug/L			05/01/23 12:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			05/01/23 12:47	1
Chloroethane	ND		1.0	0.76	ug/L			05/01/23 12:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			05/01/23 12:47	1
Chloroform	ND	UJ	1.0	1.0	ug/L			05/01/23 12:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			05/01/23 12:47	1
Chloromethane	ND		1.0	0.32	ug/L			05/01/23 12:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			05/01/23 12:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			05/01/23 12:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			05/01/23 12:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			05/01/23 12:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			05/01/23 12:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			05/01/23 12:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			05/01/23 12:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			05/01/23 12:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			05/01/23 12:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 12:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 12:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 12:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			05/01/23 12:47	1
Ethylbenzene	**6.1**		1.0	0.50	ug/L			05/01/23 12:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			05/01/23 12:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			05/01/23 12:47	1
2-Hexanone	ND		25	1.4	ug/L			05/01/23 12:47	1
Isopropylbenzene	**20**		1.0	0.53	ug/L			05/01/23 12:47	1
Methylene bromide	ND		5.0	0.22	ug/L			05/01/23 12:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			05/01/23 12:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			05/01/23 12:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			05/01/23 12:47	1
m-Xylene & p-Xylene	**70**		5.0	0.63	ug/L			05/01/23 12:47	1
Naphthalene	**5.9**		5.0	3.0	ug/L			05/01/23 12:47	1
n-Butylbenzene	**1.4**		1.0	0.76	ug/L			05/01/23 12:47	1
N-Propylbenzene	**24**		1.0	0.69	ug/L			05/01/23 12:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			05/01/23 12:47	1
o-Xylene	**1.6**	**J**	5.0	0.60	ug/L			05/01/23 12:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			05/01/23 12:47	1
p-Isopropyltoluene	**1.3**		1.0	0.71	ug/L			05/01/23 12:47	1

Client Sample ID: P56-ROX-042023

Date Collected: 04/20/23 09:20
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**1.9**		1.0	0.70	ug/L			05/01/23 12:47	1
Styrene	ND		1.0	1.0	ug/L			05/01/23 12:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			05/01/23 12:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			05/01/23 12:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			05/01/23 12:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			05/01/23 12:47	1
Toluene	**2.7**		1.0	0.41	ug/L			05/01/23 12:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			05/01/23 12:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			05/01/23 12:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			05/01/23 12:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			05/01/23 12:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			05/01/23 12:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			05/01/23 12:47	1
Trichloroethene	ND		1.0	0.15	ug/L			05/01/23 12:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			05/01/23 12:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			05/01/23 12:47	1
1,2,4-Trimethylbenzene	**35**		1.0	0.82	ug/L			05/01/23 12:47	1
1,3,5-Trimethylbenzene	**11**		1.0	0.56	ug/L			05/01/23 12:47	1
Vinyl acetate	ND		25	0.93	ug/L			05/01/23 12:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			05/01/23 12:47	1
Xylenes, Total	**72**		10	1.6	ug/L			05/01/23 12:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*05/01/23 12:47*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*05/01/23 12:47*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*05/01/23 12:47*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.54**		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 19:20	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 19:20	1
Anthracene	**0.14**	J *+ J	0.20	0.032	ug/L		04/24/23 08:27	04/25/23 19:20	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/24/23 08:27	04/25/23 19:20	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 19:20	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 19:20	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 19:20	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/24/23 08:27	04/25/23 19:20	1
Chrysene	ND		0.20	0.075	ug/L		04/24/23 08:27	04/25/23 19:20	1
Dibenz(a,h)anthracene	ND		0.20	0.051	ug/L		04/24/23 08:27	04/25/23 19:20	1
Fluoranthene	ND		0.20	0.069	ug/L		04/24/23 08:27	04/25/23 19:20	1
Fluorene	**0.52**		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 19:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 19:20	1
1-Methylnaphthalene	**19**		0.20	0.075	ug/L		04/24/23 08:27	04/25/23 19:20	1
2-Methylnaphthalene	**18**		0.20	0.061	ug/L		04/24/23 08:27	04/25/23 19:20	1
Phenanthrene	**1.1**		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 19:20	1
Pyrene	ND		0.20	0.040	ug/L		04/24/23 08:27	04/25/23 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*04/24/23 08:27*	*04/25/23 19:20*	*1*
Nitrobenzene-d5	*111*		*19 - 130*	*04/24/23 08:27*	*04/25/23 19:20*	*1*

Client Sample ID: P56-ROX-042023
Date Collected: 04/20/23 09:20
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*153*	*S1+*	*33 - 138*	*04/24/23 08:27*	*04/25/23 19:20*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 21:56	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		04/24/23 08:27	04/25/23 21:56	1
Benzoic acid	ND		30	7.4	ug/L		04/24/23 08:27	04/25/23 21:56	1
Benzyl alcohol	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 21:56	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 21:56	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 21:56	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 21:56	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		04/24/23 08:27	04/25/23 21:56	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/24/23 08:27	04/25/23 21:56	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/24/23 08:27	04/25/23 21:56	1
4-Chloroaniline	ND		10	3.4	ug/L		04/24/23 08:27	04/25/23 21:56	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 21:56	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 21:56	1
2-Chlorophenol	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 21:56	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 21:56	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 21:56	1
Dibenzofuran	**0.47**	**J**	10	0.17	ug/L		04/24/23 08:27	04/25/23 21:56	1
3,3'-Dichlorobenzidine	ND	*+	10	2.6	ug/L		04/24/23 08:27	04/25/23 21:56	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/24/23 08:27	04/25/23 21:56	1
Diethyl phthalate	**0.31**	**J B** U	10	0.24	ug/L		04/24/23 08:27	04/25/23 21:56	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 21:56	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 21:56	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 21:56	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/24/23 08:27	04/25/23 21:56	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 21:56	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 21:56	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 21:56	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 21:56	1
1,4-Dioxane	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 21:56	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 21:56	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 21:56	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 21:56	1
Hexachloroethane	ND		10	4.2	ug/L		04/24/23 08:27	04/25/23 21:56	1
Indene	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 21:56	1
Isophorone	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 21:56	1
2-Methylphenol	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 21:56	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/24/23 08:27	04/25/23 21:56	1
2-Nitroaniline	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 21:56	1
3-Nitroaniline	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 21:56	1
4-Nitroaniline	ND		10	1.5	ug/L		04/24/23 08:27	04/25/23 21:56	1
Nitrobenzene	ND		10	0.13	ug/L		04/24/23 08:27	04/25/23 21:56	1
2-Nitrophenol	ND		10	5.3	ug/L		04/24/23 08:27	04/25/23 21:56	1
4-Nitrophenol	ND		10	2.1	ug/L		04/24/23 08:27	04/25/23 21:56	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 21:56	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: P56-ROX-042023
Date Collected: 04/20/23 09:20
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/24/23 08:27	04/25/23 21:56	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/24/23 08:27	04/25/23 21:56	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 21:56	1
Phenol	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 21:56	1
Pyridine	ND		10	3.2	ug/L		04/24/23 08:27	04/25/23 21:56	1
Quinoline	ND		10	4.5	ug/L		04/24/23 08:27	04/25/23 21:56	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/24/23 08:27	04/25/23 21:56	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*04/24/23 08:27*	*04/25/23 21:56*	*1*
2-Fluorophenol	*14*		*13 - 113*	*04/24/23 08:27*	*04/25/23 21:56*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*04/24/23 08:27*	*04/25/23 21:56*	*1*
Phenol-d5	*42*		*17 - 127*	*04/24/23 08:27*	*04/25/23 21:56*	*1*
Terphenyl-d14	*81*		*44 - 149*	*04/24/23 08:27*	*04/25/23 21:56*	*1*
2,4,6-Tribromophenol	*64*		*26 - 150*	*04/24/23 08:27*	*04/25/23 21:56*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.029	0.016	ug/L		04/26/23 10:17	04/27/23 04:03	1
1,2-D bromoethane	ND		0.019	0.014	ug/L		04/26/23 10:17	04/27/23 04:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*04/26/23 10:17*	*04/27/23 04:03*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: T12-ROX-042023
Date Collected: 04/20/23 10:30
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			05/01/23 13:12	10
Acrolein	ND		200	33	ug/L			05/01/23 13:12	10
Acrylonitrile	ND		100	28	ug/L			05/01/23 13:12	10
Benzene	**1200**		10	1.3	ug/L			05/01/23 13:12	10
Bromobenzene	ND		10	5.4	ug/L			05/01/23 13:12	10
Bromochloromethane	ND		10	2.1	ug/L			05/01/23 13:12	10
Bromodichloromethane	ND		10	5.0	ug/L			05/01/23 13:12	10
Bromoform	ND		50	2.5	ug/L			05/01/23 13:12	10
Bromomethane	ND		10	9.8	ug/L			05/01/23 13:12	10
2-Butanone (MEK)	ND		250	26	ug/L			05/01/23 13:12	10
Carbon disulfide	ND		10	5.0	ug/L			05/01/23 13:12	10
Carbon tetrachloride	ND		10	1.9	ug/L			05/01/23 13:12	10
Chlorobenzene	ND		10	1.5	ug/L			05/01/23 13:12	10
Dibromochloromethane	ND		10	2.4	ug/L			05/01/23 13:12	10
Chloroethane	ND		10	7.6	ug/L			05/01/23 13:12	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			05/01/23 13:12	10
Chloroform	ND	UJ	10	10	ug/L			05/01/23 13:12	10
1-Chlorohexane	ND		10	3.2	ug/L			05/01/23 13:12	10
Chloromethane	ND		10	3.2	ug/L			05/01/23 13:12	10
cis-1,2-Dichloroethene	ND		10	2.0	ug/L			05/01/23 13:12	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			05/01/23 13:12	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			05/01/23 13:12	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			05/01/23 13:12	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			05/01/23 13:12	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			05/01/23 13:12	10
1,1-Dichloroethane	ND		10	5.0	ug/L			05/01/23 13:12	10
1,2-Dichloroethane	ND		10	1.9	ug/L			05/01/23 13:12	10
1,1-Dichloroethene	ND		10	5.0	ug/L			05/01/23 13:12	10
1,2-Dichloropropane	ND		10	5.0	ug/L			05/01/23 13:12	10
1,3-Dichloropropane	ND		10	5.0	ug/L			05/01/23 13:12	10
2,2-Dichloropropane	ND		10	5.0	ug/L			05/01/23 13:12	10
1,1-Dichloropropene	ND		10	5.0	ug/L			05/01/23 13:12	10
Ethylbenzene	**12**		10	5.0	ug/L			05/01/23 13:12	10
Ethyl methacrylate	ND		10	6.0	ug/L			05/01/23 13:12	10
Hexachlorobutadiene	ND		50	9.0	ug/L			05/01/23 13:12	10
2-Hexanone	ND		250	14	ug/L			05/01/23 13:12	10
Isopropy benzene	ND		10	5.3	ug/L			05/01/23 13:12	10
Methylene bromide	ND		50	2.2	ug/L			05/01/23 13:12	10
Methylene Chloride	ND		50	30	ug/L			05/01/23 13:12	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			05/01/23 13:12	10
Methyl tert-butyl ether	**2.2**	**J**	10	2.2	ug/L			05/01/23 13:12	10
m-Xylene & p-Xylene	**40**	**J**	50	6.3	ug/L			05/01/23 13:12	10
Naphthalene	ND		50	30	ug/L			05/01/23 13:12	10
n-Butylbenzene	ND		10	7.6	ug/L			05/01/23 13:12	10
N-Propylbenzene	ND		10	6.9	ug/L			05/01/23 13:12	10
o-Chlorotoluene	ND		10	5.7	ug/L			05/01/23 13:12	10
o-Xylene	ND		50	6.0	ug/L			05/01/23 13:12	10
p-Chlorotoluene	ND		10	5.6	ug/L			05/01/23 13:12	10
p-Isopropyltoluene	ND		10	7.1	ug/L			05/01/23 13:12	10

Client Sample ID: T12-ROX-042023

Date Collected: 04/20/23 10:30
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-4

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			05/01/23 13:12	10
Styrene	ND		10	10	ug/L			05/01/23 13:12	10
tert-Butylbenzene	ND		10	6.3	ug/L			05/01/23 13:12	10
1,1,1,2-Tetrachloroethane	ND		10	1.6	ug/L			05/01/23 13:12	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			05/01/23 13:12	10
Tetrachloroethene	ND		10	9.0	ug/L			05/01/23 13:12	10
Toluene	**26**		10	4.1	ug/L			05/01/23 13:12	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			05/01/23 13:12	10
trans-1,3-Dichloropropene	ND		50	2.0	ug/L			05/01/23 13:12	10
1,2,3-Trichlorobenzene	ND		10	9.0	ug/L			05/01/23 13:12	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			05/01/23 13:12	10
1,1,1-Trichloroethane	ND		10	1.8	ug/L			05/01/23 13:12	10
1,1,2-Trichloroethane	ND		50	2.1	ug/L			05/01/23 13:12	10
Trichloroethene	ND		10	1.5	ug/L			05/01/23 13:12	10
Trichlorofluoromethane	ND		10	5.2	ug/L			05/01/23 13:12	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			05/01/23 13:12	10
1,2,4-Trimethy benzene	ND		10	8.2	ug/L			05/01/23 13:12	10
1,3,5-Trimethylbenzene	**9.4**	**J**	10	5.6	ug/L			05/01/23 13:12	10
Vinyl acetate	ND		250	9.3	ug/L			05/01/23 13:12	10
Vinyl chloride	ND		10	5.0	ug/L			05/01/23 13:12	10
Xylenes, Total	**44**	**J**	100	16	ug/L			05/01/23 13:12	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*05/01/23 13:12*	*10*
Dibromofluoromethane	*98*		*75 - 126*		*05/01/23 13:12*	*10*
Toluene-d8 (Surr)	*94*		*64 - 132*		*05/01/23 13:12*	*10*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.23**		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 19:37	1
Acenaphthylene	ND		0.20	0.046	ug/L		04/24/23 08:27	04/25/23 19:37	1
Anthracene	ND	*+	0.20	0.032	ug/L		04/24/23 08:27	04/25/23 19:37	1
Benzo[a]anthracene	ND		0.20	0.047	ug/L		04/24/23 08:27	04/25/23 19:37	1
Benzo[a]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 19:37	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 19:37	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 19:37	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/24/23 08:27	04/25/23 19:37	1
Chrysene	ND		0.20	0.075	ug/L		04/24/23 08:27	04/25/23 19:37	1
Dibenz(a,h)anthracene	ND		0.20	0.051	ug/L		04/24/23 08:27	04/25/23 19:37	1
Fluoranthene	ND		0.20	0.069	ug/L		04/24/23 08:27	04/25/23 19:37	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 19:37	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.044	ug/L		04/24/23 08:27	04/25/23 19:37	1
1-Methylnaphthalene	**22**		0.20	0.075	ug/L		04/24/23 08:27	04/25/23 19:37	1
2-Methylnaphthalene	**31**		0.20	0.061	ug/L		04/24/23 08:27	04/25/23 19:37	1
Phenanthrene	**0.48**		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 19:37	1
Pyrene	ND		0.20	0.041	ug/L		04/24/23 08:27	04/25/23 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*04/24/23 08:27*	*04/25/23 19:37*	*1*
Nitrobenzene-d5	*125*		*19 - 130*	*04/24/23 08:27*	*04/25/23 19:37*	*1*

Client Sample ID: T12-ROX-042023
Date Collected: 04/20/23 10:30
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*180*	*S1+*	*33 - 138*	*04/24/23 08:27*	*04/25/23 19:37*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		04/24/23 08:27	04/25/23 22:18	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		04/24/23 08:27	04/25/23 22:18	1
Benzoic acid	ND		30	7.4	ug/L		04/24/23 08:27	04/25/23 22:18	1
Benzyl alcohol	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 22:18	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 22:18	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 22:18	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 22:18	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		04/24/23 08:27	04/25/23 22:18	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/24/23 08:27	04/25/23 22:18	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/24/23 08:27	04/25/23 22:18	1
4-Chloroaniline	ND		10	3.4	ug/L		04/24/23 08:27	04/25/23 22:18	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		04/24/23 08:27	04/25/23 22:18	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 22:18	1
2-Chlorophenol	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 22:18	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 22:18	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 22:18	1
Dibenzofuran	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 22:18	1
3,3'-Dichlorobenzidine	ND	*+	10	2.6	ug/L		04/24/23 08:27	04/25/23 22:18	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/24/23 08:27	04/25/23 22:18	1
Diethyl phthalate	ND		10	0.24	ug/L		04/24/23 08:27	04/25/23 22:18	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 22:18	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 22:18	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 22:18	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/24/23 08:27	04/25/23 22:18	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 22:18	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 22:18	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 22:18	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 22:18	1
1,4-Dioxane	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 22:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 22:18	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 22:18	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 22:18	1
Hexachloroethane	ND		10	4.3	ug/L		04/24/23 08:27	04/25/23 22:18	1
Indene	**1.0**	**J**	10	1.0	ug/L		04/24/23 08:27	04/25/23 22:18	1
Isophorone	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 22:18	1
2-Methylphenol	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 22:18	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		04/24/23 08:27	04/25/23 22:18	1
2-Nitroaniline	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 22:18	1
3-Nitroaniline	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 22:18	1
4-Nitroaniline	ND		10	1.5	ug/L		04/24/23 08:27	04/25/23 22:18	1
Nitrobenzene	ND		10	0.13	ug/L		04/24/23 08:27	04/25/23 22:18	1
2-Nitrophenol	ND		10	5.3	ug/L		04/24/23 08:27	04/25/23 22:18	1
4-Nitrophenol	ND		10	2.1	ug/L		04/24/23 08:27	04/25/23 22:18	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 22:18	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: T12-ROX-042023
Date Collected: 04/20/23 10:30
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/24/23 08:27	04/25/23 22:18	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/24/23 08:27	04/25/23 22:18	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 22:18	1
Phenol	**36**		10	2.6	ug/L		04/24/23 08:27	04/25/23 22:18	1
Pyridine	ND		10	3.2	ug/L		04/24/23 08:27	04/25/23 22:18	1
Quinoline	ND		10	4.6	ug/L		04/24/23 08:27	04/25/23 22:18	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 22:18	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*04/24/23 08:27*	*04/25/23 22:18*	*1*
2-Fluorophenol	*4*	*S1-*	*13 - 113*	*04/24/23 08:27*	*04/25/23 22:18*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/24/23 08:27*	*04/25/23 22:18*	*1*
Phenol-d5	*28*		*17 - 127*	*04/24/23 08:27*	*04/25/23 22:18*	*1*
Terphenyl-d14	*95*		*44 - 149*	*04/24/23 08:27*	*04/25/23 22:18*	*1*
2,4,6-Tribromophenol	*66*		*26 - 150*	*04/24/23 08:27*	*04/25/23 22:18*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.029	0.017	ug/L		04/26/23 10:17	04/27/23 04:44	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/26/23 10:17*	*04/27/23 04:44*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: P59-ROX-042023
Date Collected: 04/20/23 11:50
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			05/01/23 13:36	10
Acrolein	ND		200	33	ug/L			05/01/23 13:36	10
Acrylonitrile	ND		100	28	ug/L			05/01/23 13:36	10
Benzene	**1400**		10	1.3	ug/L			05/01/23 13:36	10
Bromobenzene	ND		10	5.4	ug/L			05/01/23 13:36	10
Bromochloromethane	ND		10	2.1	ug/L			05/01/23 13:36	10
Bromodichloromethane	ND		10	5.0	ug/L			05/01/23 13:36	10
Bromoform	ND		50	2.5	ug/L			05/01/23 13:36	10
Bromomethane	ND		10	9.8	ug/L			05/01/23 13:36	10
2-Butanone (MEK)	ND		250	26	ug/L			05/01/23 13:36	10
Carbon disulfide	ND		10	5.0	ug/L			05/01/23 13:36	10
Carbon tetrachloride	ND		10	1.9	ug/L			05/01/23 13:36	10
Chlorobenzene	ND		10	1.5	ug/L			05/01/23 13:36	10
Dibromochloromethane	ND		10	2.4	ug/L			05/01/23 13:36	10
Chloroethane	ND		10	7.6	ug/L			05/01/23 13:36	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			05/01/23 13:36	10
Chloroform	ND	UJ	10	10	ug/L			05/01/23 13:36	10
1-Chlorohexane	ND		10	3.2	ug/L			05/01/23 13:36	10
Chloromethane	ND		10	3.2	ug/L			05/01/23 13:36	10
cis-1,2-Dichloroethene	ND		10	2.0	ug/L			05/01/23 13:36	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			05/01/23 13:36	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			05/01/23 13:36	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			05/01/23 13:36	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			05/01/23 13:36	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			05/01/23 13:36	10
1,1-Dichloroethane	ND		10	5.0	ug/L			05/01/23 13:36	10
1,2-Dichloroethane	ND		10	1.9	ug/L			05/01/23 13:36	10
1,1-Dichloroethene	ND		10	5.0	ug/L			05/01/23 13:36	10
1,2-Dichloropropane	ND		10	5.0	ug/L			05/01/23 13:36	10
1,3-Dichloropropane	ND		10	5.0	ug/L			05/01/23 13:36	10
2,2-Dichloropropane	ND		10	5.0	ug/L			05/01/23 13:36	10
1,1-Dichloropropene	ND		10	5.0	ug/L			05/01/23 13:36	10
Ethylbenzene	**84**		10	5.0	ug/L			05/01/23 13:36	10
Ethyl methacrylate	ND		10	6.0	ug/L			05/01/23 13:36	10
Hexachlorobutadiene	ND		50	9.0	ug/L			05/01/23 13:36	10
2-Hexanone	ND		250	14	ug/L			05/01/23 13:36	10
Isopropylbenzene	**28**		10	5.3	ug/L			05/01/23 13:36	10
Methylene bromide	ND		50	2.2	ug/L			05/01/23 13:36	10
Methylene Chloride	ND		50	30	ug/L			05/01/23 13:36	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			05/01/23 13:36	10
Methyl tert-butyl ether	ND		10	2.2	ug/L			05/01/23 13:36	10
m-Xylene & p-Xylene	**88**		50	6.3	ug/L			05/01/23 13:36	10
Naphthalene	**77**		50	30	ug/L			05/01/23 13:36	10
n-Butylbenzene	ND		10	7.6	ug/L			05/01/23 13:36	10
N-Propylbenzene	**43**		10	6.9	ug/L			05/01/23 13:36	10
o-Chlorotoluene	ND		10	5.7	ug/L			05/01/23 13:36	10
o-Xylene	ND		50	6.0	ug/L			05/01/23 13:36	10
p-Chlorotoluene	ND		10	5.6	ug/L			05/01/23 13:36	10
p-Isopropyltoluene	ND		10	7.1	ug/L			05/01/23 13:36	10

Client Sample ID: P59-ROX-042023
Date Collected: 04/20/23 11:50
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			05/01/23 13:36	10
Styrene	ND		10	10	ug/L			05/01/23 13:36	10
tert-Butylbenzene	ND		10	6.3	ug/L			05/01/23 13:36	10
1,1,1,2-Tetrachloroethane	ND		10	1.6	ug/L			05/01/23 13:36	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			05/01/23 13:36	10
Tetrachloroethene	ND		10	9.0	ug/L			05/01/23 13:36	10
Toluene	**62**		10	4.1	ug/L			05/01/23 13:36	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			05/01/23 13:36	10
trans-1,3-Dichloropropene	ND		50	2.0	ug/L			05/01/23 13:36	10
1,2,3-Trichlorobenzene	ND		10	9.0	ug/L			05/01/23 13:36	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			05/01/23 13:36	10
1,1,1-Trichloroethane	ND		10	1.8	ug/L			05/01/23 13:36	10
1,1,2-Trichloroethane	ND		50	2.1	ug/L			05/01/23 13:36	10
Trichloroethene	ND		10	1.5	ug/L			05/01/23 13:36	10
Trichlorofluoromethane	ND		10	5.2	ug/L			05/01/23 13:36	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			05/01/23 13:36	10
1,2,4-Trimethylbenzene	**32**		10	8.2	ug/L			05/01/23 13:36	10
1,3,5-Trimethylbenzene	**19**		10	5.6	ug/L			05/01/23 13:36	10
Vinyl acetate	ND		250	9.3	ug/L			05/01/23 13:36	10
Vinyl chloride	ND		10	5.0	ug/L			05/01/23 13:36	10
Xylenes, Total	**91**	**J**	100	16	ug/L			05/01/23 13:36	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*05/01/23 13:36*	*10*
Dibromofluoromethane	*100*		*75 - 126*		*05/01/23 13:36*	*10*
Toluene-d8 (Surr)	*95*		*64 - 132*		*05/01/23 13:36*	*10*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.99	0.16	ug/L		04/24/23 08:28	04/25/23 19:54	5
Acenaphthylene	ND		0.99	0.22	ug/L		04/24/23 08:28	04/25/23 19:54	5
Anthracene	ND	*+	0.99	0.16	ug/L		04/24/23 08:28	04/25/23 19:54	5
Benzo[a]anthracene	ND		0.99	0.23	ug/L		04/24/23 08:28	04/25/23 19:54	5
Benzo[a]pyrene	ND		0.99	0.21	ug/L		04/24/23 08:28	04/25/23 19:54	5
Benzo[b]fluoranthene	ND		0.99	0.17	ug/L		04/24/23 08:28	04/25/23 19:54	5
Benzo[g,h,i]perylene	ND		0.99	0.64	ug/L		04/24/23 08:28	04/25/23 19:54	5
Benzo[k]fluoranthene	ND		0.99	0.50	ug/L		04/24/23 08:28	04/25/23 19:54	5
Chrysene	ND		0.99	0.37	ug/L		04/24/23 08:28	04/25/23 19:54	5
Dibenz(a,h)anthracene	ND		0.99	0.25	ug/L		04/24/23 08:28	04/25/23 19:54	5
Fluoranthene	ND		0.99	0.34	ug/L		04/24/23 08:28	04/25/23 19:54	5
Fluorene	ND		0.99	0.55	ug/L		04/24/23 08:28	04/25/23 19:54	5
Indeno[1,2,3-cd]pyrene	ND		0.99	0.21	ug/L		04/24/23 08:28	04/25/23 19:54	5
1-Methylnaphthalene	**9.9**		0.99	0.37	ug/L		04/24/23 08:28	04/25/23 19:54	5
2-Methylnaphthalene	**14**		0.99	0.30	ug/L		04/24/23 08:28	04/25/23 19:54	5
Phenanthrene	ND		0.99	0.18	ug/L		04/24/23 08:28	04/25/23 19:54	5
Pyrene	ND		0.99	0.20	ug/L		04/24/23 08:28	04/25/23 19:54	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*15 - 122*	*04/24/23 08:28*	*04/25/23 19:54*	*5*
Nitrobenzene-d5	*72*		*19 - 130*	*04/24/23 08:28*	*04/25/23 19:54*	*5*

Client Sample ID: P59-ROX-042023
Date Collected: 04/20/23 11:50
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*123*		*33 - 138*	*04/24/23 08:28*	*04/25/23 19:54*	*5*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		20	7.5	ug/L		04/24/23 08:28	04/25/23 22:39	2
Benzenethiol	ND	*- UJ	20	3.4	ug/L		04/24/23 08:28	04/25/23 22:39	2
Benzoic acid	ND		60	14	ug/L		04/24/23 08:28	04/25/23 22:39	2
Benzyl alcohol	ND		20	4.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
Bis(2-chloroethoxy)methane	ND		20	0.32	ug/L		04/24/23 08:28	04/25/23 22:39	2
Bis(2-chloroethyl)ether	ND		20	5.4	ug/L		04/24/23 08:28	04/25/23 22:39	2
bis (2-chloroisopropyl) ether	ND		20	0.32	ug/L		04/24/23 08:28	04/25/23 22:39	2
Bis(2-ethylhexyl) phthalate	ND		20	9.9	ug/L		04/24/23 08:28	04/25/23 22:39	2
4-Bromophenyl phenyl ether	ND		20	0.40	ug/L		04/24/23 08:28	04/25/23 22:39	2
Butyl benzyl phthalate	ND		20	0.38	ug/L		04/24/23 08:28	04/25/23 22:39	2
4-Chloroaniline	ND		20	6.7	ug/L		04/24/23 08:28	04/25/23 22:39	2
4-Chloro-3-methylphenol	ND		20	7.5	ug/L		04/24/23 08:28	04/25/23 22:39	2
2-Chloronaphthalene	ND		20	0.28	ug/L		04/24/23 08:28	04/25/23 22:39	2
2-Chlorophenol	ND		20	4.4	ug/L		04/24/23 08:28	04/25/23 22:39	2
4-Chlorophenyl phenyl ether	ND		20	4.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
Dibenz[a,h]acridine	ND		20	2.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
Dibenzofuran	ND		20	0.34	ug/L		04/24/23 08:28	04/25/23 22:39	2
3,3'-Dichlorobenzidine	ND	*+	20	5.2	ug/L		04/24/23 08:28	04/25/23 22:39	2
2,4-Dichlorophenol	ND		20	6.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
Diethyl phthalate	ND		20	0.48	ug/L		04/24/23 08:28	04/25/23 22:39	2
2,4-Dimethylphenol	ND		20	6.9	ug/L		04/24/23 08:28	04/25/23 22:39	2
Dimethyl phthalate	ND		20	0.34	ug/L		04/24/23 08:28	04/25/23 22:39	2
Di-n-butyl phthalate	ND		20	5.4	ug/L		04/24/23 08:28	04/25/23 22:39	2
4,6-Dinitro-ortho-cresol	ND		20	3.2	ug/L		04/24/23 08:28	04/25/23 22:39	2
2,4-Dinitrophenol	ND		60	6.7	ug/L		04/24/23 08:28	04/25/23 22:39	2
2,4-Dinitrotoluene	ND		20	3.8	ug/L		04/24/23 08:28	04/25/23 22:39	2
2,6-Dinitrotoluene	ND		20	3.8	ug/L		04/24/23 08:28	04/25/23 22:39	2
Di-n-octyl phthalate	ND		20	0.34	ug/L		04/24/23 08:28	04/25/23 22:39	2
1,4-Dioxane	ND		20	2.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
1,2-Diphenylhydrazine (as Azobenzene)	ND		20	2.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
Hexachlorobenzene	ND		20	0.34	ug/L		04/24/23 08:28	04/25/23 22:39	2
Hexachlorocyclopentadiene	ND		40	5.2	ug/L		04/24/23 08:28	04/25/23 22:39	2
Hexachloroethane	ND		20	8.3	ug/L		04/24/23 08:28	04/25/23 22:39	2
Indene	ND		20	2.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
Isophorone	ND		20	0.28	ug/L		04/24/23 08:28	04/25/23 22:39	2
2-Methylphenol	ND		20	3.6	ug/L		04/24/23 08:28	04/25/23 22:39	2
3 & 4 Methylphenol	ND		40	0.77	ug/L		04/24/23 08:28	04/25/23 22:39	2
2-Nitroaniline	ND		20	4.4	ug/L		04/24/23 08:28	04/25/23 22:39	2
3-Nitroaniline	ND		20	3.6	ug/L		04/24/23 08:28	04/25/23 22:39	2
4-Nitroaniline	ND		20	3.0	ug/L		04/24/23 08:28	04/25/23 22:39	2
Nitrobenzene	ND		20	0.26	ug/L		04/24/23 08:28	04/25/23 22:39	2
2-Nitrophenol	ND		20	10	ug/L		04/24/23 08:28	04/25/23 22:39	2
4-Nitrophenol	ND		20	4.2	ug/L		04/24/23 08:28	04/25/23 22:39	2
N-Nitrosodimethylamine	ND		20	6.9	ug/L		04/24/23 08:28	04/25/23 22:39	2

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: P59-ROX-042023
Date Collected: 04/20/23 11:50
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		20	6.5	ug/L		04/24/23 08:28	04/25/23 22:39	2
N-Nitrosodiphenylamine	ND		20	0.36	ug/L		04/24/23 08:28	04/25/23 22:39	2
Pentachlorophenol	ND		40	2.8	ug/L		04/24/23 08:28	04/25/23 22:39	2
Phenol	**16**	**J**	20	5.2	ug/L		04/24/23 08:28	04/25/23 22:39	2
Pyridine	ND		20	6.3	ug/L		04/24/23 08:28	04/25/23 22:39	2
Quinoline	ND		20	8.9	ug/L		04/24/23 08:28	04/25/23 22:39	2
2,4,5-Trichlorophenol	ND		20	7.3	ug/L		04/24/23 08:28	04/25/23 22:39	2
2,4,6-Trichlorophenol	ND		20	6.9	ug/L		04/24/23 08:28	04/25/23 22:39	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*04/24/23 08:28*	*04/25/23 22:39*	*2*
2-Fluorophenol	*17*		*13 - 113*	*04/24/23 08:28*	*04/25/23 22:39*	*2*
Nitrobenzene-d5	*67*		*36 - 126*	*04/24/23 08:28*	*04/25/23 22:39*	*2*
Phenol-d5	*51*		*17 - 127*	*04/24/23 08:28*	*04/25/23 22:39*	*2*
Terphenyl-d14	*82*		*44 - 149*	*04/24/23 08:28*	*04/25/23 22:39*	*2*
2,4,6-Tribromophenol	*83*		*26 - 150*	*04/24/23 08:28*	*04/25/23 22:39*	*2*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/23 10:17	04/27/23 05:04	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 05:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*127*		*51 - 149*	*04/26/23 10:17*	*04/27/23 05:04*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: P93B-ROX-042023
Date Collected: 04/20/23 13:05
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50000	20000	ug/L			05/01/23 14:01	2000
Acrolein	ND		40000	6600	ug/L			05/01/23 14:01	2000
Acrylonitrile	ND		20000	5600	ug/L			05/01/23 14:01	2000
Benzene	**400000**		2000	260	ug/L			05/01/23 14:01	2000
Bromobenzene	ND		2000	1100	ug/L			05/01/23 14:01	2000
Bromochloromethane	ND		2000	420	ug/L			05/01/23 14:01	2000
Bromodichloromethane	ND		2000	1000	ug/L			05/01/23 14:01	2000
Bromoform	ND		10000	500	ug/L			05/01/23 14:01	2000
Bromomethane	ND		2000	2000	ug/L			05/01/23 14:01	2000
2-Butanone (MEK)	ND		50000	5200	ug/L			05/01/23 14:01	2000
Carbon disulfide	ND		2000	1000	ug/L			05/01/23 14:01	2000
Carbon tetrachloride	ND		2000	380	ug/L			05/01/23 14:01	2000
Chlorobenzene	ND		2000	300	ug/L			05/01/23 14:01	2000
Dibromochloromethane	ND		2000	480	ug/L			05/01/23 14:01	2000
Chloroethane	ND		2000	1500	ug/L			05/01/23 14:01	2000
2-Chloroethyl vinyl ether	ND		10000	4000	ug/L			05/01/23 14:01	2000
Chloroform	ND	UJ	2000	2000	ug/L			05/01/23 14:01	2000
1-Chlorohexane	ND		2000	640	ug/L			05/01/23 14:01	2000
Chloromethane	ND		2000	640	ug/L			05/01/23 14:01	2000
cis-1,2-Dichloroethene	ND		2000	400	ug/L			05/01/23 14:01	2000
cis-1,3-Dichloropropene	ND		10000	1000	ug/L			05/01/23 14:01	2000
1,2-Dichlorobenzene	ND		2000	1000	ug/L			05/01/23 14:01	2000
1,3-Dichlorobenzene	ND		2000	1100	ug/L			05/01/23 14:01	2000
1,4-Dichlorobenzene	ND		2000	1300	ug/L			05/01/23 14:01	2000
Dichlorodifluoromethane	ND		2000	1700	ug/L			05/01/23 14:01	2000
1,1-Dichloroethane	ND		2000	1000	ug/L			05/01/23 14:01	2000
1,2-Dichloroethane	ND		2000	380	ug/L			05/01/23 14:01	2000
1,1-Dichloroethene	ND		2000	1000	ug/L			05/01/23 14:01	2000
1,2-Dichloropropane	ND		2000	1000	ug/L			05/01/23 14:01	2000
1,3-Dichloropropane	ND		2000	1000	ug/L			05/01/23 14:01	2000
2,2-Dichloropropane	ND		2000	1000	ug/L			05/01/23 14:01	2000
1,1-Dichloropropene	ND		2000	1000	ug/L			05/01/23 14:01	2000
Ethylbenzene	ND		2000	1000	ug/L			05/01/23 14:01	2000
Ethyl methacrylate	ND		2000	1200	ug/L			05/01/23 14:01	2000
Hexachlorobutadiene	ND		10000	1800	ug/L			05/01/23 14:01	2000
2-Hexanone	ND		50000	2800	ug/L			05/01/23 14:01	2000
Isopropy benzene	ND		2000	1100	ug/L			05/01/23 14:01	2000
Methylene bromide	ND		10000	440	ug/L			05/01/23 14:01	2000
Methylene Chloride	ND		10000	6000	ug/L			05/01/23 14:01	2000
4-Methyl-2-pentanone (MIBK)	ND		50000	3600	ug/L			05/01/23 14:01	2000
Methyl tert-butyl ether	ND		2000	440	ug/L			05/01/23 14:01	2000
m-Xylene & p-Xylene	ND		10000	1300	ug/L			05/01/23 14:01	2000
Naphthalene	ND		10000	6000	ug/L			05/01/23 14:01	2000
n-Butylbenzene	ND		2000	1500	ug/L			05/01/23 14:01	2000
N-Propylbenzene	ND		2000	1400	ug/L			05/01/23 14:01	2000
o-Chlorotoluene	ND		2000	1100	ug/L			05/01/23 14:01	2000
o-Xylene	ND		10000	1200	ug/L			05/01/23 14:01	2000
p-Chlorotoluene	ND		2000	1100	ug/L			05/01/23 14:01	2000
p-Isopropyltoluene	ND		2000	1400	ug/L			05/01/23 14:01	2000

Client Sample ID: P93B-ROX-042023
Date Collected: 04/20/23 13:05
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		2000	1400	ug/L			05/01/23 14:01	2000
Styrene	ND		2000	2000	ug/L			05/01/23 14:01	2000
tert-Butylbenzene	ND		2000	1300	ug/L			05/01/23 14:01	2000
1,1,1,2-Tetrachloroethane	ND		2000	320	ug/L			05/01/23 14:01	2000
1,1,2,2-Tetrachloroethane	ND		2000	1000	ug/L			05/01/23 14:01	2000
Tetrachloroethene	ND		2000	1800	ug/L			05/01/23 14:01	2000
Toluene	ND		2000	820	ug/L			05/01/23 14:01	2000
trans-1,2-Dichloroethene	ND		2000	1000	ug/L			05/01/23 14:01	2000
trans-1,3-Dichloropropene	ND		10000	400	ug/L			05/01/23 14:01	2000
1,2,3-Trichlorobenzene	ND		2000	1800	ug/L			05/01/23 14:01	2000
1,2,4-Trichlorobenzene	ND		2000	1600	ug/L			05/01/23 14:01	2000
1,1,1-Trichloroethane	ND		2000	360	ug/L			05/01/23 14:01	2000
1,1,2-Trichloroethane	ND		10000	420	ug/L			05/01/23 14:01	2000
Trichloroethene	ND		2000	300	ug/L			05/01/23 14:01	2000
Trichlorofluoromethane	ND		2000	1000	ug/L			05/01/23 14:01	2000
1,2,3-Trichloropropane	ND		10000	1700	ug/L			05/01/23 14:01	2000
1,2,4-Trimethy benzene	ND		2000	1600	ug/L			05/01/23 14:01	2000
1,3,5-Trimethy benzene	ND		2000	1100	ug/L			05/01/23 14:01	2000
Vinyl acetate	ND		50000	1900	ug/L			05/01/23 14:01	2000
Vinyl chloride	ND		2000	1000	ug/L			05/01/23 14:01	2000
Xylenes, Total	ND		20000	3200	ug/L			05/01/23 14:01	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*05/01/23 14:01*	*2000*
Dibromofluoromethane	*96*		*75 - 126*		*05/01/23 14:01*	*2000*
Toluene-d8 (Surr)	*95*		*64 - 132*		*05/01/23 14:01*	*2000*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/24/23 08:28	04/25/23 20:12	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/24/23 08:28	04/25/23 20:12	1
Anthracene	ND	*+	0.20	0.032	ug/L		04/24/23 08:28	04/25/23 20:12	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/24/23 08:28	04/25/23 20:12	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/24/23 08:28	04/25/23 20:12	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:28	04/25/23 20:12	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:28	04/25/23 20:12	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/24/23 08:28	04/25/23 20:12	1
Chrysene	ND		0.20	0.073	ug/L		04/24/23 08:28	04/25/23 20:12	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/24/23 08:28	04/25/23 20:12	1
Fluoranthene	ND		0.20	0.067	ug/L		04/24/23 08:28	04/25/23 20:12	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:28	04/25/23 20:12	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:28	04/25/23 20:12	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/24/23 08:28	04/25/23 20:12	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/24/23 08:28	04/25/23 20:12	1
Phenanthrene	ND		0.20	0.036	ug/L		04/24/23 08:28	04/25/23 20:12	1
Pyrene	ND		0.20	0.039	ug/L		04/24/23 08:28	04/25/23 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*121*		*15 - 122*	*04/24/23 08:28*	*04/25/23 20:12*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/24/23 08:28*	*04/25/23 20:12*	*1*

Client Sample ID: P93B-ROX-042023
Date Collected: 04/20/23 13:05
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	155	S1+	33 - 138	04/24/23 08:28	04/25/23 20:12	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/24/23 08:28	04/25/23 23:01	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/24/23 08:28	04/25/23 23:01	1
Benzoic acid	ND		30	7.2	ug/L		04/24/23 08:28	04/25/23 23:01	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/24/23 08:28	04/25/23 23:01	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/24/23 08:28	04/25/23 23:01	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/24/23 08:28	04/25/23 23:01	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/24/23 08:28	04/25/23 23:01	1
Bis(2-ethylhexyl) phthalate	**5.4**	**J**	9.9	4.9	ug/L		04/24/23 08:28	04/25/23 23:01	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/24/23 08:28	04/25/23 23:01	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/24/23 08:28	04/25/23 23:01	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/24/23 08:28	04/25/23 23:01	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/24/23 08:28	04/25/23 23:01	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/24/23 08:28	04/25/23 23:01	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/24/23 08:28	04/25/23 23:01	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/24/23 08:28	04/25/23 23:01	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/24/23 08:28	04/25/23 23:01	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/24/23 08:28	04/25/23 23:01	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		04/24/23 08:28	04/25/23 23:01	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/24/23 08:28	04/25/23 23:01	1
Diethyl phthalate	**0.33**	**J B** U	9.9	0.24	ug/L		04/24/23 08:28	04/25/23 23:01	1
2,4-Dimethylphenol	**3.6**	**J**	9.9	3.5	ug/L		04/24/23 08:28	04/25/23 23:01	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/24/23 08:28	04/25/23 23:01	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/24/23 08:28	04/25/23 23:01	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/24/23 08:28	04/25/23 23:01	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:28	04/25/23 23:01	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/24/23 08:28	04/25/23 23:01	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/24/23 08:28	04/25/23 23:01	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/24/23 08:28	04/25/23 23:01	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/24/23 08:28	04/25/23 23:01	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/24/23 08:28	04/25/23 23:01	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/24/23 08:28	04/25/23 23:01	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:28	04/25/23 23:01	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/24/23 08:28	04/25/23 23:01	1
Indene	ND		9.9	0.99	ug/L		04/24/23 08:28	04/25/23 23:01	1
Isophorone	ND		9.9	0.14	ug/L		04/24/23 08:28	04/25/23 23:01	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/24/23 08:28	04/25/23 23:01	1
3 & 4 Methylphenol	**1.0**	**J**	20	0.38	ug/L		04/24/23 08:28	04/25/23 23:01	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/24/23 08:28	04/25/23 23:01	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/24/23 08:28	04/25/23 23:01	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/24/23 08:28	04/25/23 23:01	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/24/23 08:28	04/25/23 23:01	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/24/23 08:28	04/25/23 23:01	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/24/23 08:28	04/25/23 23:01	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/24/23 08:28	04/25/23 23:01	1

Client Sample ID: P93B-ROX-042023
Date Collected: 04/20/23 13:05
Date Received: 04/21/23 08:51

Lab Sample ID: 400-236486-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/24/23 08:28	04/25/23 23:01	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/24/23 08:28	04/25/23 23:01	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:28	04/25/23 23:01	1
Phenol	**380**		9.9	2.6	ug/L		04/24/23 08:28	04/25/23 23:01	1
Pyridine	ND		9.9	3.2	ug/L		04/24/23 08:28	04/25/23 23:01	1
Quinoline	ND		9.9	4.4	ug/L		04/24/23 08:28	04/25/23 23:01	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/24/23 08:28	04/25/23 23:01	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/24/23 08:28	04/25/23 23:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*46 - 124*	*04/24/23 08:28*	*04/25/23 23:01*	*1*
2-Fluorophenol	*42*		*13 - 113*	*04/24/23 08:28*	*04/25/23 23:01*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*04/24/23 08:28*	*04/25/23 23:01*	*1*
Phenol-d5	*78*		*17 - 127*	*04/24/23 08:28*	*04/25/23 23:01*	*1*
Terphenyl-d14	*91*		*44 - 149*	*04/24/23 08:28*	*04/25/23 23:01*	*1*
2,4,6-Tribromophenol	*92*		*26 - 150*	*04/24/23 08:28*	*04/25/23 23:01*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		04/26/23 10:17	04/27/23 05:25	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*51 - 149*	*04/26/23 10:17*	*04/27/23 05:25*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236486-1	TB-ROX-042023-8260-SS	99	99	97
400-236486-3	P56-ROX-042023	97	101	96
400-236486-4	T12-ROX-042023	98	98	94
400-236486-5	P59-ROX-042023	98	100	95
400-236486-6	P93B-ROX-042023	99	96	95
LCS 400-622922/1002	Lab Control Sample	95	95	96
MB 400-622922/4	Method Blank	97	99	95

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236486-3	P56-ROX-042023	73	14	73	42	81	64
400-236486-4	T12-ROX-042023	82	4 S1-	79	28	95	66
400-236486-5	P59-ROX-042023	70	17	67	51	82	83
400-236486-6	P93B-ROX-042023	89	42	86	78	91	92
LCS 400-621966/2-A	Lab Control Sample	84	32	77	61	90	76
LCS 400-621966/4-A	Lab Control Sample	79	19	76	44	91	48
LCSD 400-621966/3-A	Lab Control Sample Dup	89	14	77	52	93	81
LCSD 400-621966/5-A	Lab Control Sample Dup	101	49	92	78	115	30
MB 400-621966/1-A	Method Blank	87	10 S1-	81	40	100	53

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236486-3	P56-ROX-042023	109	111	153 S1+
400-236486-4	T12-ROX-042023	113	125	180 S1+
400-236486-5	P59-ROX-042023	69	72	123
400-236486-6	P93B-ROX-042023	121	108	155 S1+
LCS 400-621966/2-A	Lab Control Sample	87	97	128
LCSD 400-621966/3-A	Lab Control Sample Dup	88	96	122
MB 400-621966/1-A	Method Blank	130 S1+	128	209 S1+

Surrogate Legend

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-236486-2	TB-ROX-042023-8011-SS	125
400-236486-3	P56-ROX-042023	94
400-236486-4	T12-ROX-042023	112
400-236486-5	P59-ROX-042023	127
400-236486-6	P93B-ROX-042023	114
LCS 400-622327/2-A	Lab Control Sample	93
LCSD 400-622327/3-A	Lab Control Sample Dup	108
MB 400-622327/1-A	Method Blank	99

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: TB-ROX-042023-8260-SS
Lab Sample ID: 400-236486-1
Date Collected: 04/20/23 12:00
Matrix: Water
Date Received: 04/21/23 08:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622922	05/01/23 15:40	AGW	EET PEN

Client Sample ID: TB-ROX-042023-8011-SS
Lab Sample ID: 400-236486-2
Date Collected: 04/20/23 12:00
Matrix: Water
Date Received: 04/21/23 08:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.1 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 03:42	PG	EET PEN

Client Sample ID: P56-ROX-042023
Lab Sample ID: 400-236486-3
Date Collected: 04/20/23 09:20
Matrix: Water
Date Received: 04/21/23 08:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622922	05/01/23 12:47	AGW	EET PEN
Total/NA	Prep	3520C			247.4 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 21:56	S1B	EET PEN
Total/NA	Prep	3520C			247.4 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 19:20	S1B	EET PEN
Total/NA	Prep	8011			36.5 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 04:03	PG	EET PEN

Client Sample ID: T12-ROX-042023
Lab Sample ID: 400-236486-4
Date Collected: 04/20/23 10:30
Matrix: Water
Date Received: 04/21/23 08:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	622922	05/01/23 13:12	AGW	EET PEN
Total/NA	Prep	3520C			246.6 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 22:18	S1B	EET PEN
Total/NA	Prep	3520C			246.6 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 19:37	S1B	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 04:44	PG	EET PEN

Client Sample ID: P59-ROX-042023
Lab Sample ID: 400-236486-5
Date Collected: 04/20/23 11:50
Matrix: Water
Date Received: 04/21/23 08:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	622922	05/01/23 13:36	AGW	EET PEN
Total/NA	Prep	3520C			252 mL	1 mL	621966	04/24/23 08:28	KWS	EET PEN
Total/NA	Analysis	8270D		2	0.4 mL	0.4 mL	622209	04/25/23 22:39	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236486-1

Client Sample ID: P59-ROX-042023

Lab Sample ID: 400-236486-5

Date Collected: 04/20/23 11:50

Matrix: Water

Date Received: 04/21/23 08:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			252 mL	1 mL	621966	04/24/23 08:28	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 19:54	S1B	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 05:04	PG	EET PEN

Client Sample ID: P93B-ROX-042023

Lab Sample ID: 400-236486-6

Date Collected: 04/20/23 13:05

Matrix: Water

Date Received: 04/21/23 08:51

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2000	5 mL	5 mL	622922	05/01/23 14:01	AGW	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	621966	04/24/23 08:28	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 23:01	S1B	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	621966	04/24/23 08:28	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 20:12	S1B	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 05:25	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-621966/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:04	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 15:17	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622327/1-A

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 00:58	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-622922/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622922	05/01/23 11:34	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621966/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:10	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:34	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621966/4-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:26	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622327/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 01:19	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622922/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	622922	05/01/23 10:36	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:32	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:52	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:48	S1B	EET PEN

Client: AECOM Technical Services Inc.
Job ID: 400-236486-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622327/3-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622327	04/26/23 10:17	PG	EET PEN
Total/NA	Analysis	8011		1			622352	04/27/23 01:39	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 622922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236486-1	TB-ROX-042023-8260-SS	Total/NA	Water	8260B	
400-236486-3	P56-ROX-042023	Total/NA	Water	8260B	
400-236486-4	T12-ROX-042023	Total/NA	Water	8260B	
400-236486-5	P59-ROX-042023	Total/NA	Water	8260B	
400-236486-6	P93B-ROX-042023	Total/NA	Water	8260B	
MB 400-622922/4	Method Blank	Total/NA	Water	8260B	
LCS 400-622922/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236486-3	P56-ROX-042023	Total/NA	Water	3520C	
400-236486-4	T12-ROX-042023	Total/NA	Water	3520C	
400-236486-5	P59-ROX-042023	Total/NA	Water	3520C	
400-236486-6	P93B-ROX-042023	Total/NA	Water	3520C	
MB 400-621966/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 622176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236486-3	P56-ROX-042023	Total/NA	Water	8270D LL	621966
400-236486-4	T12-ROX-042023	Total/NA	Water	8270D LL	621966
400-236486-5	P59-ROX-042023	Total/NA	Water	8270D LL	621966
400-236486-6	P93B-ROX-042023	Total/NA	Water	8270D LL	621966
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D LL	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	621966

Analysis Batch: 622209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236486-3	P56-ROX-042023	Total/NA	Water	8270D	621966
400-236486-4	T12-ROX-042023	Total/NA	Water	8270D	621966
400-236486-5	P59-ROX-042023	Total/NA	Water	8270D	621966
400-236486-6	P93B-ROX-042023	Total/NA	Water	8270D	621966
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966

GC Semi VOA

Prep Batch: 622327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236486-2	TB-ROX-042023-8011-SS	Total/NA	Water	8011	
400-236486-3	P56-ROX-042023	Total/NA	Water	8011	
400-236486-4	T12-ROX-042023	Total/NA	Water	8011	
400-236486-5	P59-ROX-042023	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 622327 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236486-6	P93B-ROX-042023	Total/NA	Water	8011	
MB 400-622327/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622327/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236486-2	TB-ROX-042023-8011-SS	Total/NA	Water	8011	622327
400-236486-3	P56-ROX-042023	Total/NA	Water	8011	622327
400-236486-4	T12-ROX-042023	Total/NA	Water	8011	622327
400-236486-5	P59-ROX-042023	Total/NA	Water	8011	622327
400-236486-6	P93B-ROX-042023	Total/NA	Water	8011	622327
MB 400-622327/1-A	Method Blank	Total/NA	Water	8011	622327
LCS 400-622327/2-A	Lab Control Sample	Total/NA	Water	8011	622327
LCSD 400-622327/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622327

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-622922/4
Matrix: Water
Analysis Batch: 622922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			05/01/23 11:34	1
Acrolein	ND		20	3.3	ug/L			05/01/23 11:34	1
Acrylonitrile	ND		10	2.8	ug/L			05/01/23 11:34	1
Benzene	ND		1.0	0.13	ug/L			05/01/23 11:34	1
Bromobenzene	ND		1.0	0.54	ug/L			05/01/23 11:34	1
Bromochloromethane	ND		1.0	0.21	ug/L			05/01/23 11:34	1
Bromodichloromethane	ND		1.0	0.50	ug/L			05/01/23 11:34	1
Bromoform	ND		5.0	0.25	ug/L			05/01/23 11:34	1
Bromomethane	ND		1.0	0.98	ug/L			05/01/23 11:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			05/01/23 11:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			05/01/23 11:34	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			05/01/23 11:34	1
Chlorobenzene	ND		1.0	0.15	ug/L			05/01/23 11:34	1
Dibromochloromethane	ND		1.0	0.24	ug/L			05/01/23 11:34	1
Chloroethane	ND		1.0	0.76	ug/L			05/01/23 11:34	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			05/01/23 11:34	1
Chloroform	ND		1.0	1.0	ug/L			05/01/23 11:34	1
1-Chlorohexane	ND		1.0	0.32	ug/L			05/01/23 11:34	1
Chloromethane	ND		1.0	0.32	ug/L			05/01/23 11:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			05/01/23 11:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			05/01/23 11:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			05/01/23 11:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			05/01/23 11:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			05/01/23 11:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			05/01/23 11:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			05/01/23 11:34	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			05/01/23 11:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			05/01/23 11:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 11:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 11:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			05/01/23 11:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			05/01/23 11:34	1
Ethylbenzene	ND		1.0	0.50	ug/L			05/01/23 11:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			05/01/23 11:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			05/01/23 11:34	1
2-Hexanone	ND		25	1.4	ug/L			05/01/23 11:34	1
Isopropy benzene	ND		1.0	0.53	ug/L			05/01/23 11:34	1
Methylene bromide	ND		5.0	0.22	ug/L			05/01/23 11:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			05/01/23 11:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			05/01/23 11:34	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			05/01/23 11:34	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			05/01/23 11:34	1
Naphthalene	ND		5.0	3.0	ug/L			05/01/23 11:34	1
n-Butylbenzene	ND		1.0	0.76	ug/L			05/01/23 11:34	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/01/23 11:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			05/01/23 11:34	1
o-Xylene	ND		5.0	0.60	ug/L			05/01/23 11:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			05/01/23 11:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-622922/4
Matrix: Water
Analysis Batch: 622922

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			05/01/23 11:34	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			05/01/23 11:34	1
Styrene	ND		1.0	1.0	ug/L			05/01/23 11:34	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			05/01/23 11:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			05/01/23 11:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			05/01/23 11:34	1
Tetrachloroethene	ND		1.0	0.90	ug/L			05/01/23 11:34	1
Toluene	ND		1.0	0.41	ug/L			05/01/23 11:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			05/01/23 11:34	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			05/01/23 11:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			05/01/23 11:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			05/01/23 11:34	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			05/01/23 11:34	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			05/01/23 11:34	1
Trichloroethene	ND		1.0	0.15	ug/L			05/01/23 11:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			05/01/23 11:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			05/01/23 11:34	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			05/01/23 11:34	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			05/01/23 11:34	1
Vinyl acetate	ND		25	0.93	ug/L			05/01/23 11:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			05/01/23 11:34	1
Xylenes, Total	ND		10	1.6	ug/L			05/01/23 11:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*05/01/23 11:34*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*05/01/23 11:34*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*05/01/23 11:34*	*1*

Lab Sample ID: LCS 400-622922/1002
Matrix: Water
Analysis Batch: 622922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	170		ug/L		85	43 - 160
Acrolein	500	477		ug/L		95	38 - 160
Acrylonitrile	500	419		ug/L		84	64 - 142
Benzene	50.0	42.6		ug/L		85	70 - 130
Bromobenzene	50.0	42.8		ug/L		86	70 - 132
Bromochloromethane	50.0	44.6		ug/L		89	70 - 130
Bromodichloromethane	50.0	40.8		ug/L		82	67 - 133
Bromoform	50.0	43.2		ug/L		86	57 - 140
Bromomethane	50.0	44.7		ug/L		89	10 - 160
2-Butanone (MEK)	200	167		ug/L		84	61 - 145
Carbon disulfide	50.0	44.3		ug/L		89	61 - 137
Carbon tetrachloride	50.0	39.6		ug/L		79	61 - 137
Chlorobenzene	50.0	43.3		ug/L		87	70 - 130
Dibromochloromethane	50.0	42.6		ug/L		85	67 - 135
Chloroethane	50.0	39.6		ug/L		79	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622922/1002
Matrix: Water
Analysis Batch: 622922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	51.4		ug/L		103	10 - 160
Chloroform	50.0	39.4		ug/L		79	69 - 130
1-Chlorohexane	50.0	37.8		ug/L		76	69 - 130
Chloromethane	50.0	41.0		ug/L		82	58 - 137
cis-1,2-Dichloroethene	50.0	38.3		ug/L		77	68 - 130
cis-1,3-Dichloropropene	50.0	43.7		ug/L		87	69 - 132
1,2-Dichlorobenzene	50.0	45.0		ug/L		90	67 - 130
1,3-Dichlorobenzene	50.0	45.1		ug/L		90	70 - 130
1,4-Dichlorobenzene	50.0	45.5		ug/L		91	70 - 130
Dichlorodifluoromethane	50.0	36.0		ug/L		72	41 - 146
1,1-Dichloroethane	50.0	40.6		ug/L		81	70 - 130
1,2-Dichloroethane	50.0	37.2		ug/L		74	69 - 130
1,1-Dichloroethene	50.0	45.9		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	42.0		ug/L		84	70 - 130
1,3-Dichloropropane	50.0	43.0		ug/L		86	70 - 130
2,2-Dichloropropane	50.0	40.8		ug/L		82	52 - 135
1,1-Dichloropropene	50.0	40.8		ug/L		82	70 - 130
Ethylbenzene	50.0	40.6		ug/L		81	70 - 130
Ethyl methacrylate	50.0	41.3		ug/L		83	68 - 130
Hexachlorobutadiene	50.0	48.0		ug/L		96	53 - 140
2-Hexanone	200	150		ug/L		75	65 - 137
Isopropy benzene	50.0	40.9		ug/L		82	70 - 130
Methylene bromide	50.0	42.5		ug/L		85	70 - 130
Methylene Chloride	50.0	47.0		ug/L		94	66 - 135
4-Methyl-2-pentanone (MIBK)	200	161		ug/L		81	69 - 138
Methyl tert-butyl ether	50.0	43.1		ug/L		86	66 - 130
m-Xylene & p-Xylene	50.0	40.8		ug/L		82	70 - 130
Naphthalene	50.0	60.2		ug/L		120	47 - 149
n-Butylbenzene	50.0	44.1		ug/L		88	67 - 130
N-Propylbenzene	50.0	43.1		ug/L		86	70 - 130
o-Chlorotoluene	50.0	41.0		ug/L		82	70 - 130
o-Xylene	50.0	41.0		ug/L		82	70 - 130
p-Chlorotoluene	50.0	41.5		ug/L		83	70 - 130
p-Isopropyltoluene	50.0	43.5		ug/L		87	65 - 130
sec-Butylbenzene	50.0	42.4		ug/L		85	66 - 130
Styrene	50.0	41.9		ug/L		84	70 - 130
tert-Butylbenzene	50.0	45.0		ug/L		90	64 - 139
1,1,1,2-Tetrachloroethane	50.0	42.3		ug/L		85	67 - 131
1,1,2,2-Tetrachloroethane	50.0	43.1		ug/L		86	70 - 131
Tetrachloroethene	50.0	42.5		ug/L		85	65 - 130
Toluene	50.0	41.0		ug/L		82	70 - 130
trans-1,2-Dichloroethene	50.0	40.1		ug/L		80	70 - 130
trans-1,3-Dichloropropene	50.0	41.5		ug/L		83	63 - 130
1,2,3-Trichlorobenzene	50.0	53.8		ug/L		108	60 - 138
1,2,4-Trichlorobenzene	50.0	52.7		ug/L		105	60 - 140
1,1,1-Trichloroethane	50.0	38.7		ug/L		77	68 - 130
1,1,2-Trichloroethane	50.0	42.6		ug/L		85	70 - 130
Trichloroethene	50.0	43.7		ug/L		87	70 - 130
Trichlorofluoromethane	50.0	43.1		ug/L		86	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-622922/1002
Matrix: Water
Analysis Batch: 622922

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	41.7		ug/L		83	70 - 130
1,2,4-Trimethy benzene	50.0	43.4		ug/L		87	70 - 130
1,3,5-Trimethy benzene	50.0	42.0		ug/L		84	69 - 130
Vinyl acetate	100	93.8		ug/L		94	26 - 160
Vinyl chloride	50.0	43.5		ug/L		87	59 - 136
Xylenes, Total	100	81.8		ug/L		82	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 119*
Dibromofluoromethane	*95*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzenethiol	ND		10	1.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzoic acid	ND		30	7.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzyl alcohol	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/24/23 08:27	04/25/23 16:04	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloroaniline	ND		10	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chlorophenol	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenzofuran	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Diethyl phthalate	0.490	J	10	0.24	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dimethyl phthalate	0.268	J	10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
1,4-Dioxane	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachloroethane	ND		10	4.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Indene	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Isophorone	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Methylphenol	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitroaniline	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
3-Nitroaniline	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitroaniline	ND		10	1.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Nitrobenzene	ND		10	0.13	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitrophenol	ND		10	5.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitrophenol	ND		10	2.1	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
Phenol	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pyridine	ND		10	3.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Quinoline	ND		10	4.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Phenol-d5	*40*		*17 - 127*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2,4,6-Tribromophenol	*53*		*26 - 150*	*04/24/23 08:27*	*04/25/23 16:04*	*1*

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	84.3		ug/L		70	21 - 120
Benzoic acid	554	182		ug/L		33	10 - 144
Benzyl alcohol	120	80.7		ug/L		67	28 - 120
Bis(2-chloroethoxy)methane	120	83.0		ug/L		69	47 - 120
Bis(2-chloroethyl)ether	120	85.6		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	92.6		ug/L		77	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
Butyl benzyl phthalate	120	112		ug/L		94	54 - 133
4-Chloroaniline	120	102		ug/L		85	26 - 120
4-Chloro-3-methylphenol	120	90.0		ug/L		75	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	98.8		ug/L		82	52 - 121
2-Chlorophenol	120	66.2		ug/L		55	40 - 120
4-Chlorophenyl phenyl ether	120	103		ug/L		86	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	98.6		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	210		ug/L		131	36 - 132
2,4-Dichlorophenol	120	83.5		ug/L		70	49 - 120
Diethyl phthalate	120	109		ug/L		90	50 - 137
2,4-Dimethylphenol	120	77.7		ug/L		65	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	115		ug/L		96	58 - 126
4,6-Dinitro-ortho-cresol	240	195		ug/L		81	23 - 148
2,4-Dinitrophenol	240	217		ug/L		90	10 - 150
2,4-Dinitrotoluene	120	103		ug/L		86	54 - 142
2,6-Dinitrotoluene	120	106		ug/L		88	55 - 130
Di-n-octyl phthalate	120	109		ug/L		91	57 - 138
1,4-Dioxane	120	63.0		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	104		ug/L		87	45 - 124
Hexachlorobenzene	120	104		ug/L		87	52 - 129
Hexachlorocyclopentadiene	120	65.3		ug/L		54	10 - 134
Hexachloroethane	120	93.5		ug/L		78	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	86.2		ug/L		72	48 - 120
2-Methylphenol	120	94.1		ug/L		78	46 - 124
3 & 4 Methylphenol	120	92.1		ug/L		77	45 - 120
2-Nitroaniline	120	113		ug/L		94	51 - 145
3-Nitroaniline	120	102		ug/L		85	37 - 127
4-Nitroaniline	120	110		ug/L		92	36 - 137
Nitrobenzene	120	86.3		ug/L		72	45 - 120
2-Nitrophenol	120	81.4		ug/L		68	40 - 124
4-Nitrophenol	240	289		ug/L		120	23 - 146
N-Nitrosodimethylamine	120	89.2		ug/L		74	29 - 137
N-Nitrosodi-n-propylamine	120	103		ug/L		86	45 - 120
N-Nitrosodiphenylamine	119	107		ug/L		90	54 - 120
Pentachlorophenol	240	148		ug/L		62	31 - 130
Phenol	120	67.7		ug/L		56	11 - 120
Pyridine	240	132		ug/L		55	16 - 120
Quinoline	120	99.3		ug/L		83	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	89.5		ug/L		75	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*61*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*76*		*26 - 150*

Lab Sample ID: LCS 400-621966/4-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.71	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*91*		*44 - 149*
2,4,6-Tribromophenol	*48*		*26 - 150*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	102		ug/L		85	21 - 120	19	30
Benzoic acid			554	198		ug/L		36	10 - 144	8	30
Benzyl alcohol			120	86.0		ug/L		72	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	90.0		ug/L		75	47 - 120	8	30
Bis(2-chloroethyl)ether			120	86.3		ug/L		72	44 - 120	1	30
bis (2-chloroisopropyl) ether			120	97.2		ug/L		81	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	116		ug/L		97	52 - 147	7	30
4-Bromophenyl phenyl ether			120	121		ug/L		101	54 - 122	11	30
Butyl benzyl phthalate			120	117		ug/L		98	54 - 133	4	30
4-Chloroaniline			120	111		ug/L		93	26 - 120	9	30
4-Chloro-3-methylphenol			120	98.7		ug/L		82	48 - 131	9	30
2-Chloronaphthalene			120	110		ug/L		92	52 - 121	11	30
2-Chlorophenol			120	50.6		ug/L		42	40 - 120	27	30
4-Chlorophenyl phenyl ether			120	113		ug/L		94	56 - 125	9	30
Dibenz[a,h]acridine			120	113		ug/L		95	31 - 150	12	30
Dibenzofuran			120	108		ug/L		90	56 - 122	9	30
3,3'-Dichlorobenzidine			160	225	*+	ug/L		141	36 - 132	7	30
2,4-Dichlorophenol			120	84.0		ug/L		70	49 - 120	1	30
Diethyl phthalate			120	116		ug/L		97	50 - 137	7	30
2,4-Dimethylphenol			120	83.3		ug/L		69	48 - 120	7	30
Dimethyl phthalate			120	114		ug/L		95	57 - 124	10	30
Di-n-butyl phthalate			120	125		ug/L		104	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	226		ug/L		94	23 - 148	15	30
2,4-Dinitrophenol			240	228		ug/L		95	10 - 150	5	30
2,4-Dinitrotoluene			120	112		ug/L		94	54 - 142	9	30
2,6-Dinitrotoluene			120	115		ug/L		96	55 - 130	8	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	115		ug/L		95	57 - 138	5	30
1,4-Dioxane			120	64.3		ug/L		54	31 - 120	2	30
1,2-Diphenylhydrazine (as Azobenzene)			120	113		ug/L		94	45 - 124	8	30
Hexachlorobenzene			120	115		ug/L		96	52 - 129	10	30
Hexachlorocyclopentadiene			120	73.4		ug/L		61	10 - 134	12	30
Hexachloroethane			120	97.7		ug/L		81	20 - 120	4	30
Indene			120	95.2		ug/L		79	49 - 120	7	30
Isophorone			120	91.6		ug/L		76	48 - 120	6	30
2-Methylphenol			120	99.5		ug/L		83	46 - 124	6	30
3 & 4 Methylphenol			120	96.0		ug/L		80	45 - 120	4	30
2-Nitroaniline			120	122		ug/L		102	51 - 145	8	30
3-Nitroaniline			120	110		ug/L		92	37 - 127	8	30
4-Nitroaniline			120	124		ug/L		103	36 - 137	12	30
Nitrobenzene			120	92.8		ug/L		77	45 - 120	7	30
2-Nitrophenol			120	85.2		ug/L		71	40 - 124	5	30
4-Nitrophenol			240	314		ug/L		131	23 - 146	8	30
N-Nitrosodimethylamine			120	94.0		ug/L		78	29 - 137	5	30
N-Nitrosodi-n-propylamine			120	110		ug/L		92	45 - 120	6	30
N-Nitrosodiphenylamine			119	120		ug/L		101	54 - 120	11	30
Pentachlorophenol			240	173		ug/L		72	31 - 130	15	30
Phenol			120	57.7		ug/L		48	11 - 120	16	30
Pyridine			240	140		ug/L		58	16 - 120	5	30
Quinoline			120	109		ug/L		91	49 - 130	9	30
2,4,5-Trichlorophenol			120	103		ug/L		86	51 - 136	10	30
2,4,6-Trichlorophenol			120	100		ug/L		84	50 - 127	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*14*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*81*		*26 - 150*

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.49	J *-	ug/L		3	10 - 120	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*101*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*92*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	30		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 15:17	1
Anthracene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/24/23 08:27	04/25/23 15:17	1
Chrysene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluoranthene	ND		0.20	0.068	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 15:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 15:17	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/24/23 08:27	04/25/23 15:17	1
Phenanthrene	ND		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 15:17	1
Pyrene	ND		0.20	0.040	ug/L		04/24/23 08:27	04/25/23 15:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	130	S1+	15 - 122	04/24/23 08:27	04/25/23 15:17	1
Nitrobenzene-d5	128		19 - 130	04/24/23 08:27	04/25/23 15:17	1
Terphenyl-d14	209	S1+	33 - 138	04/24/23 08:27	04/25/23 15:17	1

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	133		ug/L		111	44 - 120
Anthracene	120	144		ug/L		120	49 - 120
Benzo[a]anthracene	120	151		ug/L		126	61 - 135
Benzo[a]pyrene	120	138		ug/L		115	52 - 120
Benzo[b]fluoranthene	120	139		ug/L		115	53 - 134
Benzo[g,h,i]perylene	120	141		ug/L		117	47 - 133
Benzo[k]fluoranthene	120	130		ug/L		109	57 - 134
Chrysene	120	136		ug/L		113	55 - 122
Dibenz(a,h)anthracene	120	143		ug/L		119	48 - 146
Fluoranthene	120	132		ug/L		110	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	120	131		ug/L		110	45 - 125
Indeno[1,2,3-cd]pyrene	120	133		ug/L		111	43 - 142
1-Methylnaphthalene	120	121		ug/L		101	41 - 120
2-Methylnaphthalene	120	115		ug/L		96	32 - 124
Phenanthrene	120	129		ug/L		108	48 - 120
Pyrene	120	146		ug/L		122	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*15 - 122*
Nitrobenzene-d5	*97*		*19 - 130*
Terphenyl-d14	*128*		*33 - 138*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	126		ug/L		105	41 - 120	9	56
Acenaphthylene	120	137		ug/L		114	44 - 120	3	56
Anthracene	120	145	*+	ug/L		121	49 - 120	1	51
Benzo[a]anthracene	120	149		ug/L		125	61 - 135	1	49
Benzo[a]pyrene	120	141		ug/L		118	52 - 120	2	50
Benzo[b]fluoranthene	120	149		ug/L		124	53 - 134	7	54
Benzo[g,h,i]perylene	120	136		ug/L		113	47 - 133	3	50
Benzo[k]fluoranthene	120	133		ug/L		111	57 - 134	2	52
Chrysene	120	143		ug/L		119	55 - 122	5	50
Dibenz(a,h)anthracene	120	145		ug/L		121	48 - 146	2	50
Fluoranthene	120	137		ug/L		114	54 - 128	4	52
Fluorene	120	140		ug/L		117	45 - 125	7	56
Indeno[1,2,3-cd]pyrene	120	130		ug/L		108	43 - 142	3	51
1-Methylnaphthalene	120	124		ug/L		104	41 - 120	3	55
2-Methylnaphthalene	120	119		ug/L		99	32 - 124	3	57
Phenanthrene	120	134		ug/L		112	48 - 120	4	56
Pyrene	120	145		ug/L		121	48 - 132	1	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*
Nitrobenzene-d5	*96*		*19 - 130*
Terphenyl-d14	*122*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622327/1-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/23 10:17	04/27/23 00:58	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-622327/1-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622327

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 10:17	04/27/23 00:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*04/26/23 10:17*	*04/27/23 00:58*	*1*

Lab Sample ID: LCS 400-622327/2-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622327

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.160	*+	ug/L		160	60 - 140		
1,2-D bromoethane			0.101	0.116		ug/L		115	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*51 - 149*

Lab Sample ID: LCSD 400-622327/3-A
Matrix: Water
Analysis Batch: 622352

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622327

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.168	*+	ug/L		167	60 - 140	5	30
1,2-D bromoethane			0.101	0.128		ug/L		127	60 - 140	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:		
☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/20/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

SPLIT REPORT

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

*** Please include "J" values on Reports.**
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	Container PID Readings or Laboratory Notes:
	TB-ROX-042023-8260-SS	4/20/2023	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-042023-8011-SS	4/20/2023	0000	Water	2					2		X			SPLIT REPORT
	P56-ROX-042023	4/20/2023	0920	Water	6			2		8	X	X	X	X	SPLIT REPORT
	T12-ROX-042023	4/20/2023	1030	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P59-ROX-042023	4/20/2023	1150	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93B-ROX-042023	4/20/2023	1305	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-236486 COC

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5293 4337 5310, 5293 4337 5320	4/20/2023	1600
Relinquished by: (Signature)	Received by: (Signature) 0.8, 0.0°C IR-1	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-21-23	Time: 851

Version: 13Oct22

CUSTODY SEALS: 1599724, 1599725, 1599726, 1599727

Page 49 of 52

5/18/2023

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES_____	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/20/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

SPLIT REPORT

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

*** Please include "J" values on Reports.**
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	Container PID Readings or Laboratory Notes:
	TB-ROX-042023-8260-SS	4/20/2023	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-042023-8011-SS	4/20/2023	0000	Water	2					2		X			SPLIT REPORT
	P56-ROX-042023	4/20/2023	0920	Water	6			2		8	X	X	X	X	SPLIT REPORT
	T12-ROX-042023	4/20/2023	1030	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P59-ROX-042023	4/20/2023	1150	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93B-ROX-042023	4/20/2023	1305	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-236486 COC

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5293 4337 5310, 5293 4337 5320	4/20/2023	1600
Relinquished by: (Signature)	Received by: (Signature) 0.8, 0.0°C IR-1	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-21-23	Time: 851

Version: 13Oct22

CUSTODY SEALS: 1599724, 1599725, 1599726, 1599727

Page 50 of 52

5/18/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-236486-1

Login Number: 236486 **List Source: Eurofins Pensacola**
List Number: 1
Creator: Whitley, Adrian

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8, 0.0°C IR11
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236486-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 2nd Quarter 2023 Data Review

Laboratory SDG: 400-236538-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 5/31/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-042123-8260-SS	P93D-ROX-042123
TB-ROX-042123-8011-SS	--

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 diethyl phthalate and dimethyl phthalate were detected in equipment blank MB 400-621966/1-A. VOC, SVOC and PAH LCS/LCSD recoveries were outside evaluation criteria. Several SVOC and PAH surrogate recoveries were outside criteria in several investigative and quality control samples. The initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

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?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-621966/1-A	SVOCs	Diethyl phthalate	0.490 µg/L
MB 400-621966/1-A	SVOCs	Dimethyl phthalate	0.268 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the

associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P93D-ROX-042123	SVOCs	Diethyl 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
LCS 400-623355/1002	VOCs	Vinyl acetate	**175**	NA	26-160
LCS/LCSD 400-621966/4-A/5-A	SVOCs	Benzenethiol	**3/3**	6	10-120/30
LCS/LCSD 400-621966/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	131/**141**	7	36-132/30
LCS/LCSD 400-621966/2-A/3-A	PAHs	Anthracene	120/**121**	1	49-120/51

Analytical data that required qualification based on LCS/LCSD 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. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-042123	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P93D-ROX-042123	SVOCs	2-Fluorophenol	**5**	13-113
MB 400-621966/1-A	SVOCs	2-Fluorophenol	**10**	13-113
P93D-ROX-042123	PAHs	2-Fluorobiphenyl	**123**	15-122
P93D-ROX-042123	PAHs	Terphenyl-d14	**183**	33-138
MB 400-621966/1-A	PAHs	2-Fluorobiphenyl	**130**	15-122
MB 400-621966/1-A	PAHs	Terphenyl-d14	**209**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Equipment blanks and method blanks are quality control samples and do not require qualification.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the initial calibration verification (ICV) for bromomethane was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-042123	VOCs	Bromomethane	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 5/9/2023 2:24:14 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-236538-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

Table of Contents

Cover Page 1
Table of Contents 3
Case Narrative 4
Sample Summary 6
Detection Summary 7
Client Sample Results 8
Definitions 15
Surrogate Summary 16
Method Summary 18
Chronicle 19
QC Association 22
QC Sample Results 24
Chain of Custody 35
Receipt Checklists 36
Certification Summary 37

Job ID: 400-236538-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-236538-1

Comments
No additional comments.

Receipt
The samples were received on 4/22/2023 7:56 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.3º C.

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-623355 recovered above the upper control limit for Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-623355 recovered outside control limits for the following analytes: Vinyl acetate. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-042123-8260-SS (400-236538-1) and P93D-ROX-042123 (400-236538-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-613356 was outside method criteria for the following analyte(s): Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Methods 8270D, 8270E: The continuing calibration verification (CCV) associated with batch 400-622334 recovered above the upper control limit for 4-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: P93D-ROX-042123 (400-236538-3). These results have been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The method blank contained an allowable number of surrogate compounds outside limits: (MB 400-621966/1-A). These results have been reported and qualified.

Method 8270D: The method blank for preparation batch 400-621966 and analytical batch 400-622209 contained Diethyl phthalate and Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-621966 and analytical batch 400-622209 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622209 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCSD and was not detected in the associated sample; therefore, the data have been reported.

Job ID: 400-236538-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D LL: The laboratory control sample duplicate (LCSD) for preparation batch 400-621966 and analytical batch 400-622176 recovered outside control limits for the following analytes: Anthracene. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-621966 and analytical batch 400-622176 was outside the upper control limits.

Methods 8270D LL, 8270E LL: The continuing calibration verification (CCV) associated with batch 400-622288 recovered above the upper control limit for 1-Methylnaphthalene, Benzo[b]fluoranthene and Pyrene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Methods 8270D LL, 8270E LL: Surrogate recovery for the following sample was outside the upper control limit: P93D-ROX-042123 (400-236538-3). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D LL: The following analyte(s) recovered outside control limits for LCSD associated with preparation batch 400-621966 and analytical batch 400-622176: Anthracene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-236538-1	TB-ROX-042123-8260-SS	Water	04/21/23 12:00	04/22/23 07:56
400-236538-2	TB-ROX-042123-8011-SS	Water	04/21/23 12:00	04/22/23 07:56
400-236538-3	P93D-ROX-042123	Water	04/21/23 12:30	04/22/23 07:56

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: TB-ROX-042123-8260-SS — Lab Sample ID: 400-236538-1

No Detections.

Client Sample ID: TB-ROX-042123-8011-SS — Lab Sample ID: 400-236538-2

No Detections.

Client Sample ID: P93D-ROX-042123 — Lab Sample ID: 400-236538-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.83	J	1.0	0.22	ug/L	1		8260B	Total/NA
Toluene	0.56	J	1.0	0.41	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.27	J B U	9.9	0.24	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: TB-ROX-042123-8260-SS
Date Collected: 04/21/23 12:00
Date Received: 04/22/23 07:56

Lab Sample ID: 400-236538-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			05/03/23 20:40	1
Acrolein	ND		20	3.3	ug/L			05/03/23 20:40	1
Acrylonitrile	ND		10	2.8	ug/L			05/03/23 20:40	1
Benzene	ND		1.0	0.13	ug/L			05/03/23 20:40	1
Bromobenzene	ND		1.0	0.54	ug/L			05/03/23 20:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			05/03/23 20:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			05/03/23 20:40	1
Bromoform	ND		5.0	0.25	ug/L			05/03/23 20:40	1
Bromomethane	ND		1.0	0.98	ug/L			05/03/23 20:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			05/03/23 20:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			05/03/23 20:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			05/03/23 20:40	1
Chlorobenzene	ND		1.0	0.15	ug/L			05/03/23 20:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			05/03/23 20:40	1
Chloroethane	ND		1.0	0.76	ug/L			05/03/23 20:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			05/03/23 20:40	1
Chloroform	ND		1.0	1.0	ug/L			05/03/23 20:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			05/03/23 20:40	1
Chloromethane	ND		1.0	0.32	ug/L			05/03/23 20:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			05/03/23 20:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			05/03/23 20:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			05/03/23 20:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			05/03/23 20:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			05/03/23 20:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			05/03/23 20:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			05/03/23 20:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			05/03/23 20:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			05/03/23 20:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 20:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 20:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 20:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			05/03/23 20:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			05/03/23 20:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			05/03/23 20:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			05/03/23 20:40	1
2-Hexanone	ND		25	1.4	ug/L			05/03/23 20:40	1
Isopropy benzene	ND		1.0	0.53	ug/L			05/03/23 20:40	1
Methylene bromide	ND		5.0	0.22	ug/L			05/03/23 20:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			05/03/23 20:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			05/03/23 20:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			05/03/23 20:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			05/03/23 20:40	1
Naphthalene	ND		5.0	3.0	ug/L			05/03/23 20:40	1
n-Butylbenzene	ND		1.0	0.76	ug/L			05/03/23 20:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/03/23 20:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			05/03/23 20:40	1
o-Xylene	ND		5.0	0.60	ug/L			05/03/23 20:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			05/03/23 20:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			05/03/23 20:40	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: TB-ROX-042123-8260-SS
Date Collected: 04/21/23 12:00
Date Received: 04/22/23 07:56

Lab Sample ID: 400-236538-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			05/03/23 20:40	1
Styrene	ND		1.0	1.0	ug/L			05/03/23 20:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			05/03/23 20:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			05/03/23 20:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			05/03/23 20:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			05/03/23 20:40	1
Toluene	ND		1.0	0.41	ug/L			05/03/23 20:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			05/03/23 20:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			05/03/23 20:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			05/03/23 20:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			05/03/23 20:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			05/03/23 20:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			05/03/23 20:40	1
Trichloroethene	ND		1.0	0.15	ug/L			05/03/23 20:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			05/03/23 20:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			05/03/23 20:40	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			05/03/23 20:40	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			05/03/23 20:40	1
Vinyl acetate	ND	*+	25	0.93	ug/L			05/03/23 20:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			05/03/23 20:40	1
Xylenes, Total	ND		10	1.6	ug/L			05/03/23 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*05/03/23 20:40*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*05/03/23 20:40*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*05/03/23 20:40*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: TB-ROX-042123-8011-SS
Date Collected: 04/21/23 12:00
Date Received: 04/22/23 07:56

Lab Sample ID: 400-236538-2
Matrix: Water

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/23 12:52	04/27/23 19:41	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 12:52	04/27/23 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*51 - 149*	*04/26/23 12:52*	*04/27/23 19:41*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: P93D-ROX-042123
Date Collected: 04/21/23 12:30
Date Received: 04/22/23 07:56

Lab Sample ID: 400-236538-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			05/03/23 21:03	1
Acrolein	ND		20	3.3	ug/L			05/03/23 21:03	1
Acrylonitrile	ND		10	2.8	ug/L			05/03/23 21:03	1
Benzene	ND		1.0	0.13	ug/L			05/03/23 21:03	1
Bromobenzene	ND		1.0	0.54	ug/L			05/03/23 21:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			05/03/23 21:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			05/03/23 21:03	1
Bromoform	ND		5.0	0.25	ug/L			05/03/23 21:03	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			05/03/23 21:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			05/03/23 21:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			05/03/23 21:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			05/03/23 21:03	1
Chlorobenzene	ND		1.0	0.15	ug/L			05/03/23 21:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			05/03/23 21:03	1
Chloroethane	ND		1.0	0.76	ug/L			05/03/23 21:03	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			05/03/23 21:03	1
Chloroform	ND		1.0	1.0	ug/L			05/03/23 21:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			05/03/23 21:03	1
Chloromethane	ND		1.0	0.32	ug/L			05/03/23 21:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			05/03/23 21:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			05/03/23 21:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			05/03/23 21:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			05/03/23 21:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			05/03/23 21:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			05/03/23 21:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			05/03/23 21:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			05/03/23 21:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			05/03/23 21:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 21:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 21:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 21:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			05/03/23 21:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			05/03/23 21:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			05/03/23 21:03	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			05/03/23 21:03	1
2-Hexanone	ND		25	1.4	ug/L			05/03/23 21:03	1
Isopropy benzene	ND		1.0	0.53	ug/L			05/03/23 21:03	1
Methylene bromide	ND		5.0	0.22	ug/L			05/03/23 21:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			05/03/23 21:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			05/03/23 21:03	1
Methyl tert-butyl ether	**0.83**	**J**	1.0	0.22	ug/L			05/03/23 21:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			05/03/23 21:03	1
Naphthalene	ND		5.0	3.0	ug/L			05/03/23 21:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			05/03/23 21:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/03/23 21:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			05/03/23 21:03	1
o-Xylene	ND		5.0	0.60	ug/L			05/03/23 21:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			05/03/23 21:03	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			05/03/23 21:03	1

Client Sample ID: P93D-ROX-042123

Date Collected: 04/21/23 12:30
Date Received: 04/22/23 07:56

Lab Sample ID: 400-236538-3

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			05/03/23 21:03	1
Styrene	ND		1.0	1.0	ug/L			05/03/23 21:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			05/03/23 21:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			05/03/23 21:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			05/03/23 21:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			05/03/23 21:03	1
Toluene	**0.56**	**J**	1.0	0.41	ug/L			05/03/23 21:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			05/03/23 21:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			05/03/23 21:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			05/03/23 21:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			05/03/23 21:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			05/03/23 21:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			05/03/23 21:03	1
Trichloroethene	ND		1.0	0.15	ug/L			05/03/23 21:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			05/03/23 21:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			05/03/23 21:03	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			05/03/23 21:03	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			05/03/23 21:03	1
Vinyl acetate	ND	*+	25	0.93	ug/L			05/03/23 21:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			05/03/23 21:03	1
Xylenes, Total	ND		10	1.6	ug/L			05/03/23 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*05/03/23 21:03*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*05/03/23 21:03*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*05/03/23 21:03*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/25/23 07:17	04/26/23 21:09	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/25/23 07:17	04/26/23 21:09	1
Anthracene	ND	*+	0.20	0.032	ug/L		04/25/23 07:17	04/26/23 21:09	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/25/23 07:17	04/26/23 21:09	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/25/23 07:17	04/26/23 21:09	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/25/23 07:17	04/26/23 21:09	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/25/23 07:17	04/26/23 21:09	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/25/23 07:17	04/26/23 21:09	1
Chrysene	ND		0.20	0.073	ug/L		04/25/23 07:17	04/26/23 21:09	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/25/23 07:17	04/26/23 21:09	1
Fluoranthene	ND		0.20	0.067	ug/L		04/25/23 07:17	04/26/23 21:09	1
Fluorene	ND		0.20	0.11	ug/L		04/25/23 07:17	04/26/23 21:09	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/25/23 07:17	04/26/23 21:09	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/25/23 07:17	04/26/23 21:09	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/25/23 07:17	04/26/23 21:09	1
Phenanthrene	ND		0.20	0.035	ug/L		04/25/23 07:17	04/26/23 21:09	1
Pyrene	ND		0.20	0.039	ug/L		04/25/23 07:17	04/26/23 21:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*123*	*S1+*	*15 - 122*	*04/25/23 07:17*	*04/26/23 21:09*	*1*
Nitrobenzene-d5	*102*		*19 - 130*	*04/25/23 07:17*	*04/26/23 21:09*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: P93D-ROX-042123
Date Collected: 04/21/23 12:30
Date Received: 04/22/23 07:56

Lab Sample ID: 400-236538-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*183*	*S1+*	*33 - 138*	*04/25/23 07:17*	*04/26/23 21:09*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/25/23 07:17	04/26/23 13:24	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/25/23 07:17	04/26/23 13:24	1
Benzoic acid	ND		30	7.2	ug/L		04/25/23 07:17	04/26/23 13:24	1
Benzyl alcohol	ND		9.9	2.0	ug/L		04/25/23 07:17	04/26/23 13:24	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/25/23 07:17	04/26/23 13:24	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/25/23 07:17	04/26/23 13:24	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/25/23 07:17	04/26/23 13:24	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/25/23 07:17	04/26/23 13:24	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/25/23 07:17	04/26/23 13:24	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/25/23 07:17	04/26/23 13:24	1
4-Chloroaniline	ND		9.9	3.3	ug/L		04/25/23 07:17	04/26/23 13:24	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/25/23 07:17	04/26/23 13:24	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/25/23 07:17	04/26/23 13:24	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/25/23 07:17	04/26/23 13:24	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/25/23 07:17	04/26/23 13:24	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/25/23 07:17	04/26/23 13:24	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/25/23 07:17	04/26/23 13:24	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		04/25/23 07:17	04/26/23 13:24	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/25/23 07:17	04/26/23 13:24	1
Diethyl phthalate	**0.27**	**J B** U	9.9	0.24	ug/L		04/25/23 07:17	04/26/23 13:24	1
2,4-Dimethylphenol	ND		9.9	3.4	ug/L		04/25/23 07:17	04/26/23 13:24	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/25/23 07:17	04/26/23 13:24	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/25/23 07:17	04/26/23 13:24	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/25/23 07:17	04/26/23 13:24	1
2,4-Dinitrophenol	ND		30	3.3	ug/L		04/25/23 07:17	04/26/23 13:24	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/25/23 07:17	04/26/23 13:24	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/25/23 07:17	04/26/23 13:24	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/25/23 07:17	04/26/23 13:24	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/25/23 07:17	04/26/23 13:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/25/23 07:17	04/26/23 13:24	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/25/23 07:17	04/26/23 13:24	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/25/23 07:17	04/26/23 13:24	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/25/23 07:17	04/26/23 13:24	1
Indene	ND		9.9	0.99	ug/L		04/25/23 07:17	04/26/23 13:24	1
Isophorone	ND		9.9	0.14	ug/L		04/25/23 07:17	04/26/23 13:24	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/25/23 07:17	04/26/23 13:24	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/25/23 07:17	04/26/23 13:24	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/25/23 07:17	04/26/23 13:24	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/25/23 07:17	04/26/23 13:24	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/25/23 07:17	04/26/23 13:24	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/25/23 07:17	04/26/23 13:24	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/25/23 07:17	04/26/23 13:24	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/25/23 07:17	04/26/23 13:24	1
N-Nitrosodimethylamine	ND		9.9	3.4	ug/L		04/25/23 07:17	04/26/23 13:24	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: P93D-ROX-042123
Date Collected: 04/21/23 12:30
Date Received: 04/22/23 07:56

Lab Sample ID: 400-236538-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/25/23 07:17	04/26/23 13:24	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/25/23 07:17	04/26/23 13:24	1
Pentachlorophenol	ND		20	1.4	ug/L		04/25/23 07:17	04/26/23 13:24	1
Phenol	ND		9.9	2.6	ug/L		04/25/23 07:17	04/26/23 13:24	1
Pyridine	ND		9.9	3.2	ug/L		04/25/23 07:17	04/26/23 13:24	1
Quinoline	ND		9.9	4.4	ug/L		04/25/23 07:17	04/26/23 13:24	1
2,4,5-Trichlorophenol	ND		9.9	3.6	ug/L		04/25/23 07:17	04/26/23 13:24	1
2,4,6-Trichlorophenol	ND		9.9	3.4	ug/L		04/25/23 07:17	04/26/23 13:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*04/25/23 07:17*	*04/26/23 13:24*	*1*
2-Fluorophenol	*5*	*S1-*	*13 - 113*	*04/25/23 07:17*	*04/26/23 13:24*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/25/23 07:17*	*04/26/23 13:24*	*1*
Phenol-d5	*29*		*17 - 127*	*04/25/23 07:17*	*04/26/23 13:24*	*1*
Terphenyl-d14	*94*		*44 - 149*	*04/25/23 07:17*	*04/26/23 13:24*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*04/25/23 07:17*	*04/26/23 13:24*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/23 12:52	04/27/23 20:02	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 12:52	04/27/23 20:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*51 - 149*	*04/26/23 12:52*	*04/27/23 20:02*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-236538-1	TB-ROX-042123-8260-SS	106	102	93
400-236538-3	P93D-ROX-042123	105	103	92
LCS 400-623355/1002	Lab Control Sample	109	101	94
MB 400-623355/4	Method Blank	106	102	92

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-236538-3	P93D-ROX-042123	81	5 S1-	76	29	94	60
LCS 400-621966/2-A	Lab Control Sample	84	32	77	61	90	76
LCS 400-621966/4-A	Lab Control Sample	79	19	76	44	91	48
LCSD 400-621966/3-A	Lab Control Sample Dup	89	14	77	52	93	81
LCSD 400-621966/5-A	Lab Control Sample Dup	101	49	92	78	115	30
MB 400-621966/1-A	Method Blank	87	10 S1-	81	40	100	53

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-236538-3	P93D-ROX-042123	123 S1+	102	183 S1+
LCS 400-621966/2-A	Lab Control Sample	87	97	128
LCSD 400-621966/3-A	Lab Control Sample Dup	88	96	122
MB 400-621966/1-A	Method Blank	130 S1+	128	209 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB2
Lab Sample ID	Client Sample ID	(51-149)
400-236538-2	TB-ROX-042123-8011-SS	85
400-236538-3	P93D-ROX-042123	79
LCS 400-622362/2-A	Lab Control Sample	89
LCSD 400-622362/3-A	Lab Control Sample Dup	93
MB 400-622362/1-A	Method Blank	83

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Client Sample ID: TB-ROX-042123-8260-SS
Lab Sample ID: 400-236538-1
Date Collected: 04/21/23 12:00
Matrix: Water
Date Received: 04/22/23 07:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	623355	05/03/23 20:40	WPD	EET PEN

Client Sample ID: TB-ROX-042123-8011-SS
Lab Sample ID: 400-236538-2
Date Collected: 04/21/23 12:00
Matrix: Water
Date Received: 04/22/23 07:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.3 mL	35 mL	622362	04/26/23 12:52	PG	EET PEN
Total/NA	Analysis	8011		1			622580	04/27/23 19:41	PG	EET PEN

Client Sample ID: P93D-ROX-042123
Lab Sample ID: 400-236538-3
Date Collected: 04/21/23 12:30
Matrix: Water
Date Received: 04/22/23 07:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	623355	05/03/23 21:03	WPD	EET PEN
Total/NA	Prep	3520C			253.8 mL	1 mL	621966	04/25/23 07:17	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622334	04/26/23 13:24	VC1	EET PEN
Total/NA	Prep	3520C			253.8 mL	1 mL	621966	04/25/23 07:17	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622288	04/26/23 21:09	S1B	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	622362	04/26/23 12:52	PG	EET PEN
Total/NA	Analysis	8011		1			622580	04/27/23 20:02	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-621966/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:04	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	622176	04/25/23 15:17	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-622362/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622362	04/26/23 12:52	PG	EET PEN
Total/NA	Analysis	8011		1			622580	04/27/23 17:17	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-623355/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	623355	05/03/23 16:51	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621966/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:10	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:34	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-621966/4-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:26	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-622362/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622362	04/26/23 12:52	PG	EET PEN
Total/NA	Analysis	8011		1			622580	04/27/23 17:38	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-623355/1002

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	623355	05/03/23 16:06	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/3-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 17:32	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	622176	04/25/23 15:52	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-236538-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-621966/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	621966	04/24/23 08:27	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	622209	04/25/23 16:48	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-622362/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	622362	04/26/23 12:52	PG	EET PEN
Total/NA	Analysis	8011		1			622580	04/27/23 17:58	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 623355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236538-1	TB-ROX-042123-8260-SS	Total/NA	Water	8260B	
400-236538-3	P93D-ROX-042123	Total/NA	Water	8260B	
MB 400-623355/4	Method Blank	Total/NA	Water	8260B	
LCS 400-623355/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 621966

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236538-3	P93D-ROX-042123	Total/NA	Water	3520C	
MB 400-621966/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 622176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D LL	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D LL	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	621966

Analysis Batch: 622209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-621966/1-A	Method Blank	Total/NA	Water	8270D	621966
LCS 400-621966/2-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCS 400-621966/4-A	Lab Control Sample	Total/NA	Water	8270D	621966
LCSD 400-621966/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966
LCSD 400-621966/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	621966

Analysis Batch: 622288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236538-3	P93D-ROX-042123	Total/NA	Water	8270D LL	621966

Analysis Batch: 622334

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236538-3	P93D-ROX-042123	Total/NA	Water	8270D	621966

GC Semi VOA

Prep Batch: 622362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236538-2	TB-ROX-042123-8011-SS	Total/NA	Water	8011	
400-236538-3	P93D-ROX-042123	Total/NA	Water	8011	
MB 400-622362/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-622362/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-622362/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 622580

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-236538-2	TB-ROX-042123-8011-SS	Total/NA	Water	8011	622362
400-236538-3	P93D-ROX-042123	Total/NA	Water	8011	622362

GC Semi VOA (Continued)

Analysis Batch: 622580 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-622362/1-A	Method Blank	Total/NA	Water	8011	622362
LCS 400-622362/2-A	Lab Control Sample	Total/NA	Water	8011	622362
LCSD 400-622362/3-A	Lab Control Sample Dup	Total/NA	Water	8011	622362

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-623355/4
Matrix: Water
Analysis Batch: 623355

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			05/03/23 16:51	1
Acrolein	ND		20	3.3	ug/L			05/03/23 16:51	1
Acrylonitrile	ND		10	2.8	ug/L			05/03/23 16:51	1
Benzene	ND		1.0	0.13	ug/L			05/03/23 16:51	1
Bromobenzene	ND		1.0	0.54	ug/L			05/03/23 16:51	1
Bromochloromethane	ND		1.0	0.21	ug/L			05/03/23 16:51	1
Bromodichloromethane	ND		1.0	0.50	ug/L			05/03/23 16:51	1
Bromoform	ND		5.0	0.25	ug/L			05/03/23 16:51	1
Bromomethane	ND		1.0	0.98	ug/L			05/03/23 16:51	1
2-Butanone (MEK)	ND		25	2.6	ug/L			05/03/23 16:51	1
Carbon disulfide	ND		1.0	0.50	ug/L			05/03/23 16:51	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			05/03/23 16:51	1
Chlorobenzene	ND		1.0	0.15	ug/L			05/03/23 16:51	1
Dibromochloromethane	ND		1.0	0.24	ug/L			05/03/23 16:51	1
Chloroethane	ND		1.0	0.76	ug/L			05/03/23 16:51	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			05/03/23 16:51	1
Chloroform	ND		1.0	1.0	ug/L			05/03/23 16:51	1
1-Chlorohexane	ND		1.0	0.32	ug/L			05/03/23 16:51	1
Chloromethane	ND		1.0	0.32	ug/L			05/03/23 16:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			05/03/23 16:51	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			05/03/23 16:51	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			05/03/23 16:51	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			05/03/23 16:51	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			05/03/23 16:51	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			05/03/23 16:51	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			05/03/23 16:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			05/03/23 16:51	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			05/03/23 16:51	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 16:51	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 16:51	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			05/03/23 16:51	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			05/03/23 16:51	1
Ethylbenzene	ND		1.0	0.50	ug/L			05/03/23 16:51	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			05/03/23 16:51	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			05/03/23 16:51	1
2-Hexanone	ND		25	1.4	ug/L			05/03/23 16:51	1
Isopropy benzene	ND		1.0	0.53	ug/L			05/03/23 16:51	1
Methylene bromide	ND		5.0	0.22	ug/L			05/03/23 16:51	1
Methylene Chloride	ND		5.0	3.0	ug/L			05/03/23 16:51	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			05/03/23 16:51	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			05/03/23 16:51	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			05/03/23 16:51	1
Naphthalene	ND		5.0	3.0	ug/L			05/03/23 16:51	1
n-Butylbenzene	ND		1.0	0.76	ug/L			05/03/23 16:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			05/03/23 16:51	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			05/03/23 16:51	1
o-Xylene	ND		5.0	0.60	ug/L			05/03/23 16:51	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			05/03/23 16:51	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-623355/4
Matrix: Water
Analysis Batch: 623355

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			05/03/23 16:51	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			05/03/23 16:51	1
Styrene	ND		1.0	1.0	ug/L			05/03/23 16:51	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			05/03/23 16:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			05/03/23 16:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			05/03/23 16:51	1
Tetrachloroethene	ND		1.0	0.90	ug/L			05/03/23 16:51	1
Toluene	ND		1.0	0.41	ug/L			05/03/23 16:51	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			05/03/23 16:51	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			05/03/23 16:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			05/03/23 16:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			05/03/23 16:51	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			05/03/23 16:51	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			05/03/23 16:51	1
Trichloroethene	ND		1.0	0.15	ug/L			05/03/23 16:51	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			05/03/23 16:51	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			05/03/23 16:51	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			05/03/23 16:51	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			05/03/23 16:51	1
Vinyl acetate	ND		25	0.93	ug/L			05/03/23 16:51	1
Vinyl chloride	ND		1.0	0.50	ug/L			05/03/23 16:51	1
Xylenes, Total	ND		10	1.6	ug/L			05/03/23 16:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*05/03/23 16:51*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*05/03/23 16:51*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*05/03/23 16:51*	*1*

Lab Sample ID: LCS 400-623355/1002
Matrix: Water
Analysis Batch: 623355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	234		ug/L		117	43 - 160
Acrolein	250	309		ug/L		124	38 - 160
Acrylonitrile	500	562		ug/L		112	64 - 142
Benzene	50.0	52.9		ug/L		106	70 - 130
Bromobenzene	50.0	50.8		ug/L		102	70 - 132
Bromochloromethane	50.0	52.4		ug/L		105	70 - 130
Bromodichloromethane	50.0	57.1		ug/L		114	67 - 133
Bromoform	50.0	57.8		ug/L		116	57 - 140
Bromomethane	25.0	23.3		ug/L		93	10 - 160
2-Butanone (MEK)	200	234		ug/L		117	61 - 145
Carbon disulfide	50.0	47.2		ug/L		94	61 - 137
Carbon tetrachloride	50.0	55.1		ug/L		110	61 - 137
Chlorobenzene	50.0	48.6		ug/L		97	70 - 130
Dibromochloromethane	50.0	53.1		ug/L		106	67 - 135
Chloroethane	25.0	21.0		ug/L		84	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-623355/1002
Matrix: Water
Analysis Batch: 623355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	25.0	38.4		ug/L		154	10 - 160
Chloroform	50.0	53.4		ug/L		107	69 - 130
1-Chlorohexane	50.0	47.3		ug/L		95	69 - 130
Chloromethane	25.0	22.0		ug/L		88	58 - 137
cis-1,2-Dichloroethene	50.0	55.4		ug/L		111	68 - 130
cis-1,3-Dichloropropene	50.0	63.2		ug/L		126	69 - 132
1,2-Dichlorobenzene	50.0	48.3		ug/L		97	67 - 130
1,3-Dichlorobenzene	50.0	48.2		ug/L		96	70 - 130
1,4-Dichlorobenzene	50.0	48.1		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	15.0		ug/L		60	41 - 146
1,1-Dichloroethane	50.0	53.2		ug/L		106	70 - 130
1,2-Dichloroethane	50.0	57.6		ug/L		115	69 - 130
1,1-Dichloroethene	50.0	48.3		ug/L		97	63 - 134
1,2-Dichloropropane	50.0	57.3		ug/L		115	70 - 130
1,3-Dichloropropane	50.0	54.5		ug/L		109	70 - 130
2,2-Dichloropropane	50.0	67.4		ug/L		135	52 - 135
1,1-Dichloropropene	50.0	51.5		ug/L		103	70 - 130
Ethylbenzene	50.0	48.7		ug/L		97	70 - 130
Ethyl methacrylate	50.0	62.1		ug/L		124	68 - 130
Hexachlorobutadiene	50.0	47.6		ug/L		95	53 - 140
2-Hexanone	200	209		ug/L		105	65 - 137
Isopropy benzene	50.0	46.9		ug/L		94	70 - 130
Methylene bromide	50.0	57.9		ug/L		116	70 - 130
Methylene Chloride	50.0	56.5		ug/L		113	66 - 135
4-Methyl-2-pentanone (MIBK)	200	249		ug/L		125	69 - 138
Methyl tert-butyl ether	50.0	65.1		ug/L		130	66 - 130
m-Xylene & p-Xylene	50.0	47.3		ug/L		95	70 - 130
Naphthalene	50.0	53.5		ug/L		107	47 - 149
n-Butylbenzene	50.0	44.2		ug/L		88	67 - 130
N-Propylbenzene	50.0	49.4		ug/L		99	70 - 130
o-Chlorotoluene	50.0	46.0		ug/L		92	70 - 130
o-Xylene	50.0	48.2		ug/L		96	70 - 130
p-Chlorotoluene	50.0	50.6		ug/L		101	70 - 130
p-Isopropyltoluene	50.0	48.4		ug/L		97	65 - 130
sec-Butylbenzene	50.0	47.9		ug/L		96	66 - 130
Styrene	50.0	49.6		ug/L		99	70 - 130
tert-Butylbenzene	50.0	49.7		ug/L		99	64 - 139
1,1,1,2-Tetrachloroethane	50.0	55.7		ug/L		111	67 - 131
1,1,2,2-Tetrachloroethane	50.0	58.7		ug/L		117	70 - 131
Tetrachloroethene	50.0	44.6		ug/L		89	65 - 130
Toluene	50.0	47.1		ug/L		94	70 - 130
trans-1,2-Dichloroethene	50.0	49.0		ug/L		98	70 - 130
trans-1,3-Dichloropropene	50.0	61.0		ug/L		122	63 - 130
1,2,3-Trichlorobenzene	50.0	52.3		ug/L		105	60 - 138
1,2,4-Trichlorobenzene	50.0	50.9		ug/L		102	60 - 140
1,1,1-Trichloroethane	50.0	53.0		ug/L		106	68 - 130
1,1,2-Trichloroethane	50.0	53.3		ug/L		107	70 - 130
Trichloroethene	50.0	49.0		ug/L		98	70 - 130
Trichlorofluoromethane	25.0	23.2		ug/L		93	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-623355/1002
Matrix: Water
Analysis Batch: 623355

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	57.1		ug/L		114	70 - 130
1,2,4-Trimethy benzene	50.0	50.2		ug/L		100	70 - 130
1,3,5-Trimethy benzene	50.0	49.5		ug/L		99	69 - 130
Vinyl acetate	50.0	87.5	*+	ug/L		175	26 - 160
Vinyl chloride	25.0	20.2		ug/L		81	59 - 136
Xylenes, Total	100	95.5		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*94*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzenethiol	ND		10	1.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzoic acid	ND		30	7.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
Benzyl alcohol	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/24/23 08:27	04/25/23 16:04	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/24/23 08:27	04/25/23 16:04	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloroaniline	ND		10	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Chlorophenol	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dibenzofuran	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Diethyl phthalate	0.490	J	10	0.24	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Dimethyl phthalate	0.268	J	10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/24/23 08:27	04/25/23 16:04	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
1,4-Dioxane	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Hexachloroethane	ND		10	4.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Indene	ND		10	1.0	ug/L		04/24/23 08:27	04/25/23 16:04	1
Isophorone	ND		10	0.14	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Methylphenol	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitroaniline	ND		10	2.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
3-Nitroaniline	ND		10	1.8	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitroaniline	ND		10	1.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
Nitrobenzene	ND		10	0.13	ug/L		04/24/23 08:27	04/25/23 16:04	1
2-Nitrophenol	ND		10	5.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
4-Nitrophenol	ND		10	2.1	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/24/23 08:27	04/25/23 16:04	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pentachlorophenol	ND		20	1.4	ug/L		04/24/23 08:27	04/25/23 16:04	1
Phenol	ND		10	2.6	ug/L		04/24/23 08:27	04/25/23 16:04	1
Pyridine	ND		10	3.2	ug/L		04/24/23 08:27	04/25/23 16:04	1
Quinoline	ND		10	4.5	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/24/23 08:27	04/25/23 16:04	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/24/23 08:27	04/25/23 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Phenol-d5	*40*		*17 - 127*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/24/23 08:27*	*04/25/23 16:04*	*1*
2,4,6-Tribromophenol	*53*		*26 - 150*	*04/24/23 08:27*	*04/25/23 16:04*	*1*

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	84.3		ug/L		70	21 - 120
Benzoic acid	554	182		ug/L		33	10 - 144
Benzyl alcohol	120	80.7		ug/L		67	28 - 120
Bis(2-chloroethoxy)methane	120	83.0		ug/L		69	47 - 120
Bis(2-chloroethyl)ether	120	85.6		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	92.6		ug/L		77	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
Butyl benzyl phthalate	120	112		ug/L		94	54 - 133
4-Chloroaniline	120	102		ug/L		85	26 - 120
4-Chloro-3-methylphenol	120	90.0		ug/L		75	48 - 131

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-236538-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	98.8		ug/L		82	52 - 121
2-Chlorophenol	120	66.2		ug/L		55	40 - 120
4-Chlorophenyl phenyl ether	120	103		ug/L		86	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	98.6		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	210		ug/L		131	36 - 132
2,4-Dichlorophenol	120	83.5		ug/L		70	49 - 120
Diethyl phthalate	120	109		ug/L		90	50 - 137
2,4-Dimethylphenol	120	77.7		ug/L		65	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	115		ug/L		96	58 - 126
4,6-Dinitro-ortho-cresol	240	195		ug/L		81	23 - 148
2,4-Dinitrophenol	240	217		ug/L		90	10 - 150
2,4-Dinitrotoluene	120	103		ug/L		86	54 - 142
2,6-Dinitrotoluene	120	106		ug/L		88	55 - 130
Di-n-octyl phthalate	120	109		ug/L		91	57 - 138
1,4-Dioxane	120	63.0		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	104		ug/L		87	45 - 124
Hexachlorobenzene	120	104		ug/L		87	52 - 129
Hexachlorocyclopentadiene	120	65.3		ug/L		54	10 - 134
Hexachloroethane	120	93.5		ug/L		78	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	86.2		ug/L		72	48 - 120
2-Methylphenol	120	94.1		ug/L		78	46 - 124
3 & 4 Methylphenol	120	92.1		ug/L		77	45 - 120
2-Nitroaniline	120	113		ug/L		94	51 - 145
3-Nitroaniline	120	102		ug/L		85	37 - 127
4-Nitroaniline	120	110		ug/L		92	36 - 137
Nitrobenzene	120	86.3		ug/L		72	45 - 120
2-Nitrophenol	120	81.4		ug/L		68	40 - 124
4-Nitrophenol	240	289		ug/L		120	23 - 146
N-Nitrosodimethylamine	120	89.2		ug/L		74	29 - 137
N-Nitrosodi-n-propylamine	120	103		ug/L		86	45 - 120
N-Nitrosodiphenylamine	119	107		ug/L		90	54 - 120
Pentachlorophenol	240	148		ug/L		62	31 - 130
Phenol	120	67.7		ug/L		56	11 - 120
Pyridine	240	132		ug/L		55	16 - 120
Quinoline	120	99.3		ug/L		83	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	89.5		ug/L		75	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*61*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*76*		*26 - 150*

Lab Sample ID: LCS 400-621966/4-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.71	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*91*		*44 - 149*
2,4,6-Tribromophenol	*48*		*26 - 150*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	102		ug/L		85	21 - 120	19	30
Benzoic acid			554	198		ug/L		36	10 - 144	8	30
Benzyl alcohol			120	86.0		ug/L		72	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	90.0		ug/L		75	47 - 120	8	30
Bis(2-chloroethyl)ether			120	86.3		ug/L		72	44 - 120	1	30
bis (2-chloroisopropyl) ether			120	97.2		ug/L		81	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	116		ug/L		97	52 - 147	7	30
4-Bromophenyl phenyl ether			120	121		ug/L		101	54 - 122	11	30
Butyl benzyl phthalate			120	117		ug/L		98	54 - 133	4	30
4-Chloroaniline			120	111		ug/L		93	26 - 120	9	30
4-Chloro-3-methylphenol			120	98.7		ug/L		82	48 - 131	9	30
2-Chloronaphthalene			120	110		ug/L		92	52 - 121	11	30
2-Chlorophenol			120	50.6		ug/L		42	40 - 120	27	30
4-Chlorophenyl phenyl ether			120	113		ug/L		94	56 - 125	9	30
Dibenz[a,h]acridine			120	113		ug/L		95	31 - 150	12	30
Dibenzofuran			120	108		ug/L		90	56 - 122	9	30
3,3'-Dichlorobenzidine			160	225	*+	ug/L		141	36 - 132	7	30
2,4-Dichlorophenol			120	84.0		ug/L		70	49 - 120	1	30
Diethyl phthalate			120	116		ug/L		97	50 - 137	7	30
2,4-Dimethylphenol			120	83.3		ug/L		69	48 - 120	7	30
Dimethyl phthalate			120	114		ug/L		95	57 - 124	10	30
Di-n-butyl phthalate			120	125		ug/L		104	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	226		ug/L		94	23 - 148	15	30
2,4-Dinitrophenol			240	228		ug/L		95	10 - 150	5	30
2,4-Dinitrotoluene			120	112		ug/L		94	54 - 142	9	30
2,6-Dinitrotoluene			120	115		ug/L		96	55 - 130	8	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	115		ug/L		95	57 - 138	5	30
1,4-Dioxane			120	64.3		ug/L		54	31 - 120	2	30
1,2-Diphenylhydrazine (as Azobenzene)			120	113		ug/L		94	45 - 124	8	30
Hexachlorobenzene			120	115		ug/L		96	52 - 129	10	30
Hexachlorocyclopentadiene			120	73.4		ug/L		61	10 - 134	12	30
Hexachloroethane			120	97.7		ug/L		81	20 - 120	4	30
Indene			120	95.2		ug/L		79	49 - 120	7	30
Isophorone			120	91.6		ug/L		76	48 - 120	6	30
2-Methylphenol			120	99.5		ug/L		83	46 - 124	6	30
3 & 4 Methylphenol			120	96.0		ug/L		80	45 - 120	4	30
2-Nitroaniline			120	122		ug/L		102	51 - 145	8	30
3-Nitroaniline			120	110		ug/L		92	37 - 127	8	30
4-Nitroaniline			120	124		ug/L		103	36 - 137	12	30
Nitrobenzene			120	92.8		ug/L		77	45 - 120	7	30
2-Nitrophenol			120	85.2		ug/L		71	40 - 124	5	30
4-Nitrophenol			240	314		ug/L		131	23 - 146	8	30
N-Nitrosodimethylamine			120	94.0		ug/L		78	29 - 137	5	30
N-Nitrosodi-n-propylamine			120	110		ug/L		92	45 - 120	6	30
N-Nitrosodiphenylamine			119	120		ug/L		101	54 - 120	11	30
Pentachlorophenol			240	173		ug/L		72	31 - 130	15	30
Phenol			120	57.7		ug/L		48	11 - 120	16	30
Pyridine			240	140		ug/L		58	16 - 120	5	30
Quinoline			120	109		ug/L		91	49 - 130	9	30
2,4,5-Trichlorophenol			120	103		ug/L		86	51 - 136	10	30
2,4,6-Trichlorophenol			120	100		ug/L		84	50 - 127	11	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*14*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*81*		*26 - 150*

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.49	J *-	ug/L		3	10 - 120	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*101*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*92*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-621966/5-A
Matrix: Water
Analysis Batch: 622209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	30		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-621966/1-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 621966

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/24/23 08:27	04/25/23 15:17	1
Anthracene	ND		0.20	0.032	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/24/23 08:27	04/25/23 15:17	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/24/23 08:27	04/25/23 15:17	1
Chrysene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluoranthene	ND		0.20	0.068	ug/L		04/24/23 08:27	04/25/23 15:17	1
Fluorene	ND		0.20	0.11	ug/L		04/24/23 08:27	04/25/23 15:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/24/23 08:27	04/25/23 15:17	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/24/23 08:27	04/25/23 15:17	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/24/23 08:27	04/25/23 15:17	1
Phenanthrene	ND		0.20	0.036	ug/L		04/24/23 08:27	04/25/23 15:17	1
Pyrene	ND		0.20	0.040	ug/L		04/24/23 08:27	04/25/23 15:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	130	S1+	15 - 122	04/24/23 08:27	04/25/23 15:17	1
Nitrobenzene-d5	128		19 - 130	04/24/23 08:27	04/25/23 15:17	1
Terphenyl-d14	209	S1+	33 - 138	04/24/23 08:27	04/25/23 15:17	1

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	133		ug/L		111	44 - 120
Anthracene	120	144		ug/L		120	49 - 120
Benzo[a]anthracene	120	151		ug/L		126	61 - 135
Benzo[a]pyrene	120	138		ug/L		115	52 - 120
Benzo[b]fluoranthene	120	139		ug/L		115	53 - 134
Benzo[g,h,i]perylene	120	141		ug/L		117	47 - 133
Benzo[k]fluoranthene	120	130		ug/L		109	57 - 134
Chrysene	120	136		ug/L		113	55 - 122
Dibenz(a,h)anthracene	120	143		ug/L		119	48 - 146
Fluoranthene	120	132		ug/L		110	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-621966/2-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluorene			120	131		ug/L		110	45 - 125		
Indeno[1,2,3-cd]pyrene			120	133		ug/L		111	43 - 142		
1-Methylnaphthalene			120	121		ug/L		101	41 - 120		
2-Methylnaphthalene			120	115		ug/L		96	32 - 124		
Phenanthrene			120	129		ug/L		108	48 - 120		
Pyrene			120	146		ug/L		122	48 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*15 - 122*
Nitrobenzene-d5	*97*		*19 - 130*
Terphenyl-d14	*128*		*33 - 138*

Lab Sample ID: LCSD 400-621966/3-A
Matrix: Water
Analysis Batch: 622176

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 621966

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	126		ug/L		105	41 - 120	9	56
Acenaphthylene			120	137		ug/L		114	44 - 120	3	56
Anthracene			120	145	*+	ug/L		121	49 - 120	1	51
Benzo[a]anthracene			120	149		ug/L		125	61 - 135	1	49
Benzo[a]pyrene			120	141		ug/L		118	52 - 120	2	50
Benzo[b]fluoranthene			120	149		ug/L		124	53 - 134	7	54
Benzo[g,h,i]perylene			120	136		ug/L		113	47 - 133	3	50
Benzo[k]fluoranthene			120	133		ug/L		111	57 - 134	2	52
Chrysene			120	143		ug/L		119	55 - 122	5	50
Dibenz(a,h)anthracene			120	145		ug/L		121	48 - 146	2	50
Fluoranthene			120	137		ug/L		114	54 - 128	4	52
Fluorene			120	140		ug/L		117	45 - 125	7	56
Indeno[1,2,3-cd]pyrene			120	130		ug/L		108	43 - 142	3	51
1-Methylnaphthalene			120	124		ug/L		104	41 - 120	3	55
2-Methylnaphthalene			120	119		ug/L		99	32 - 124	3	57
Phenanthrene			120	134		ug/L		112	48 - 120	4	56
Pyrene			120	145		ug/L		121	48 - 132	1	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*
Nitrobenzene-d5	*96*		*19 - 130*
Terphenyl-d14	*122*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-622362/1-A
Matrix: Water
Analysis Batch: 622580

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622362

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/23 12:52	04/27/23 17:17	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-622362/1-A
Matrix: Water
Analysis Batch: 622580

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 622362

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromoethane	ND		0.020	0.015	ug/L		04/26/23 12:52	04/27/23 17:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*04/26/23 12:52*	*04/27/23 17:17*	*1*

Lab Sample ID: LCS 400-622362/2-A
Matrix: Water
Analysis Batch: 622580

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 622362

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.0884		ug/L		88	60 - 140		
1,2-D bromoethane			0.101	0.0975		ug/L		97	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*51 - 149*

Lab Sample ID: LCSD 400-622362/3-A
Matrix: Water
Analysis Batch: 622580

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 622362

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.0903		ug/L		90	60 - 140	2	30
1,2-D bromoethane			0.101	0.0992		ug/L		98	60 - 140	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/21/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60697537 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, T. Jenkins
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

SPLIT REPORT

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.2.2

FIELD NOTES:
4.3 C JR 8
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 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	
	TB-ROX-042123-8260-SS	4/21/2023	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-042123-8011-SS	4/21/2023	0000	Water	2					2		X			SPLIT REPORT
	P93D-ROX-042123	4/21/2023	1230	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-236538 COC

4/21/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5293 4337 5331	4/21/2023	1600
	CAS	4/22/23	756

CUSTODY SEALS: 1599728, 1599729

Version: 13Oct22

Page 35 of 37

5/9/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-236538-1

Login Number: 236538
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.3°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-236538-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-24

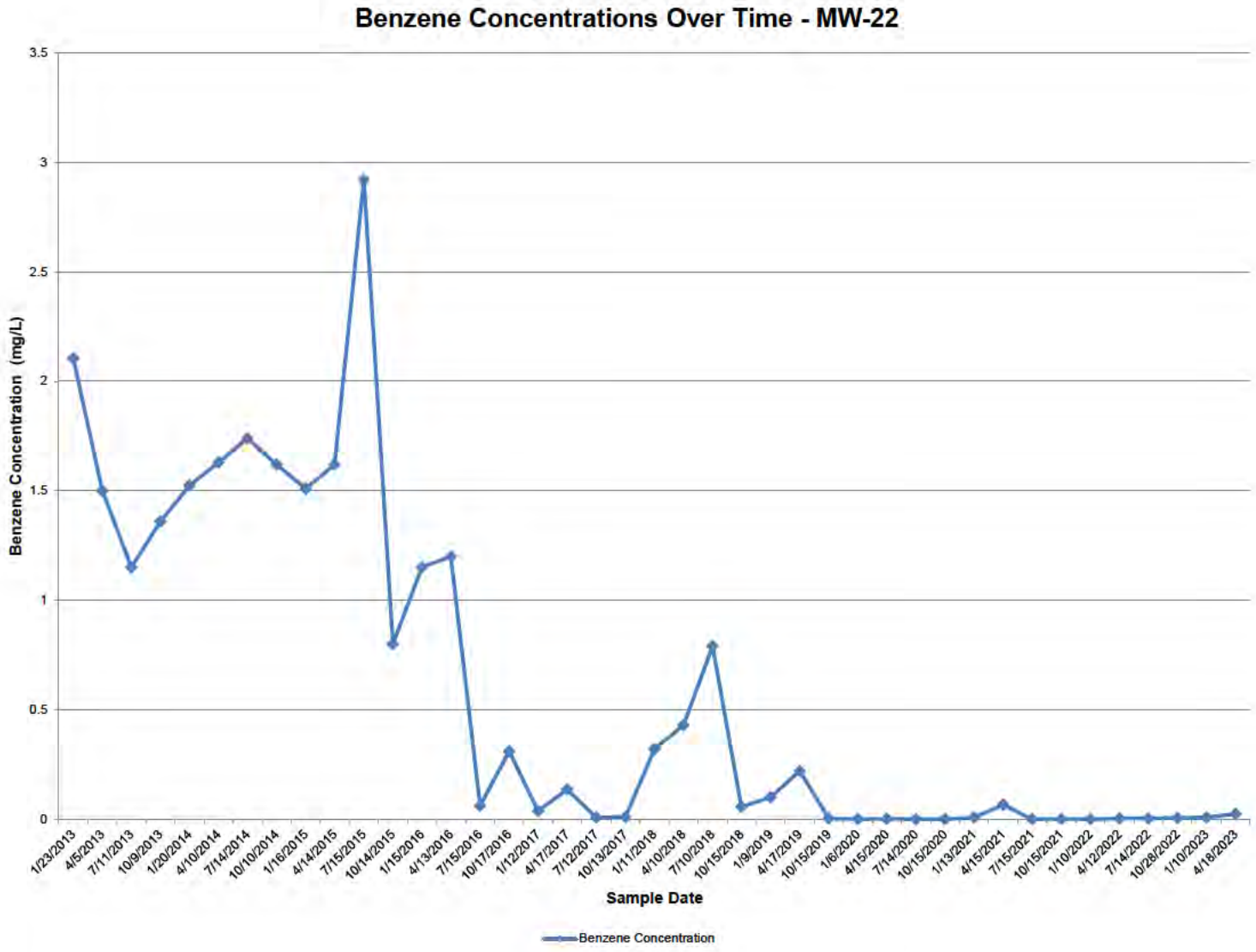
Appendix D

Appendix D – 1 Charts – Benzene Concentrations Over Time

Appendix D – 2 GWSDAT Charts

- 4th Street area – MW-22, ROST-4 PZ(C), P-59, and T-12
- Public Works Yard area – MW-7, MW-8, MW-25, and P-57

4th Street Area



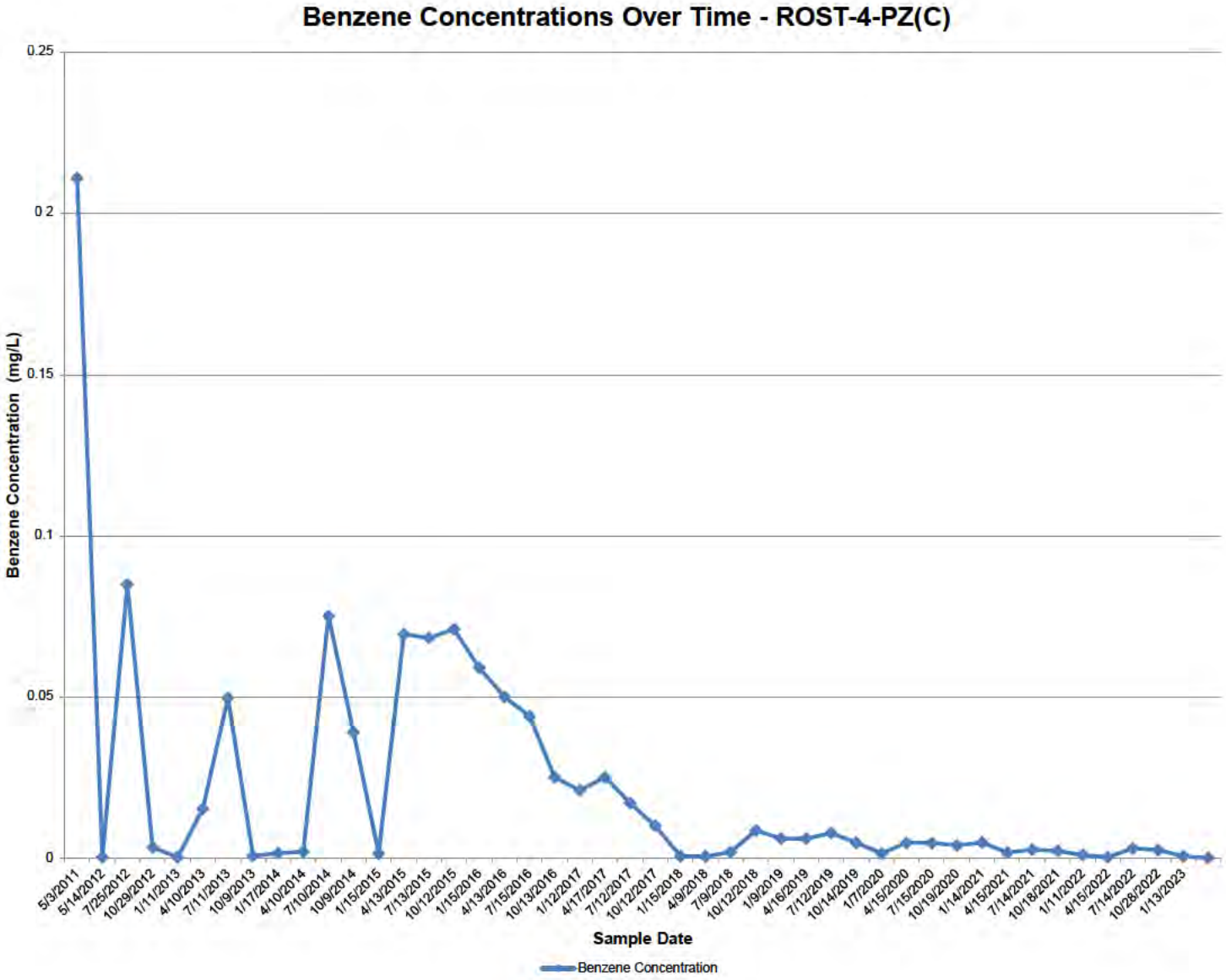
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.



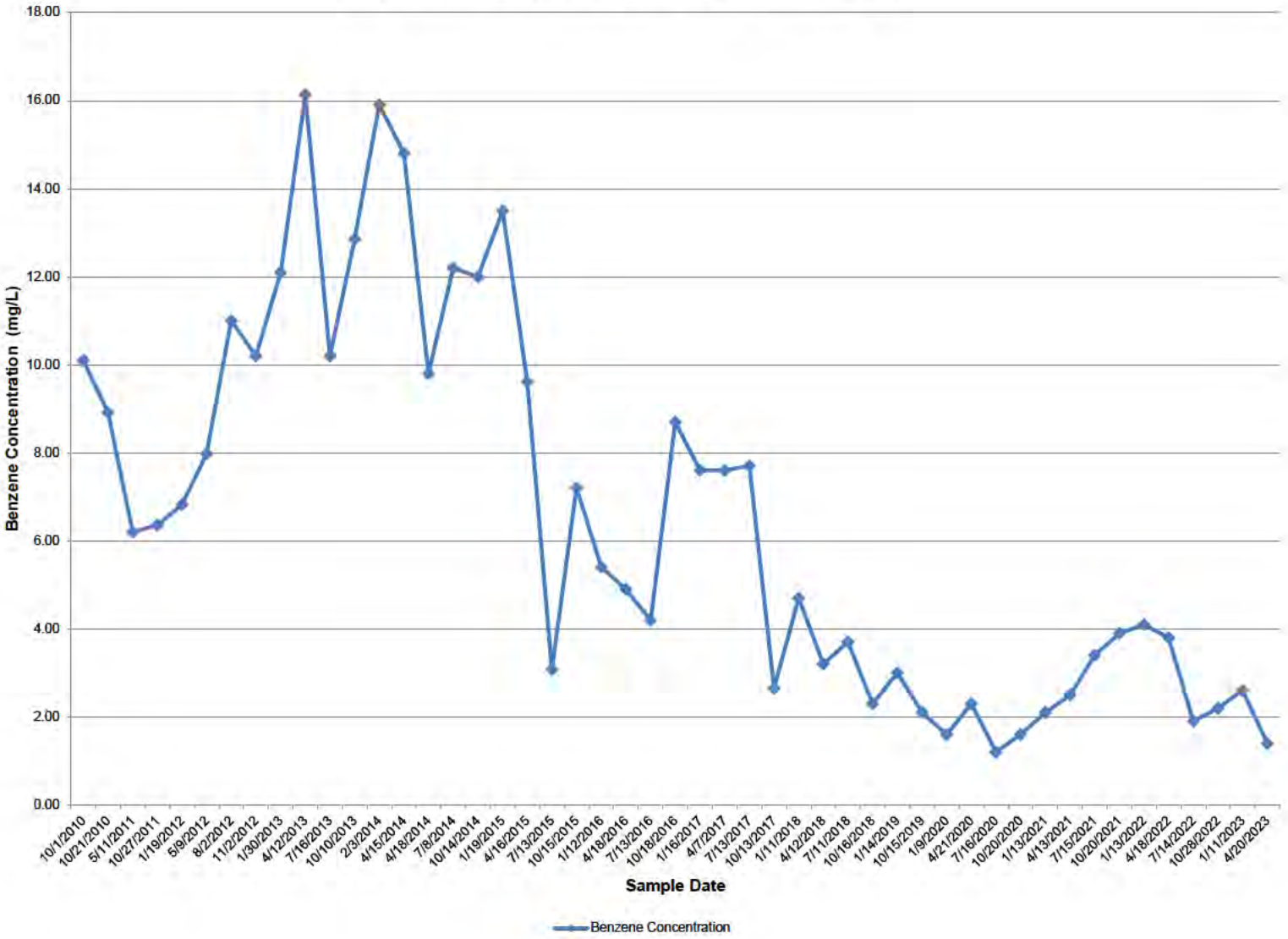
Notes:

mg/L = milligrams per liter

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.

Benzene Concentrations Over Time - P-59

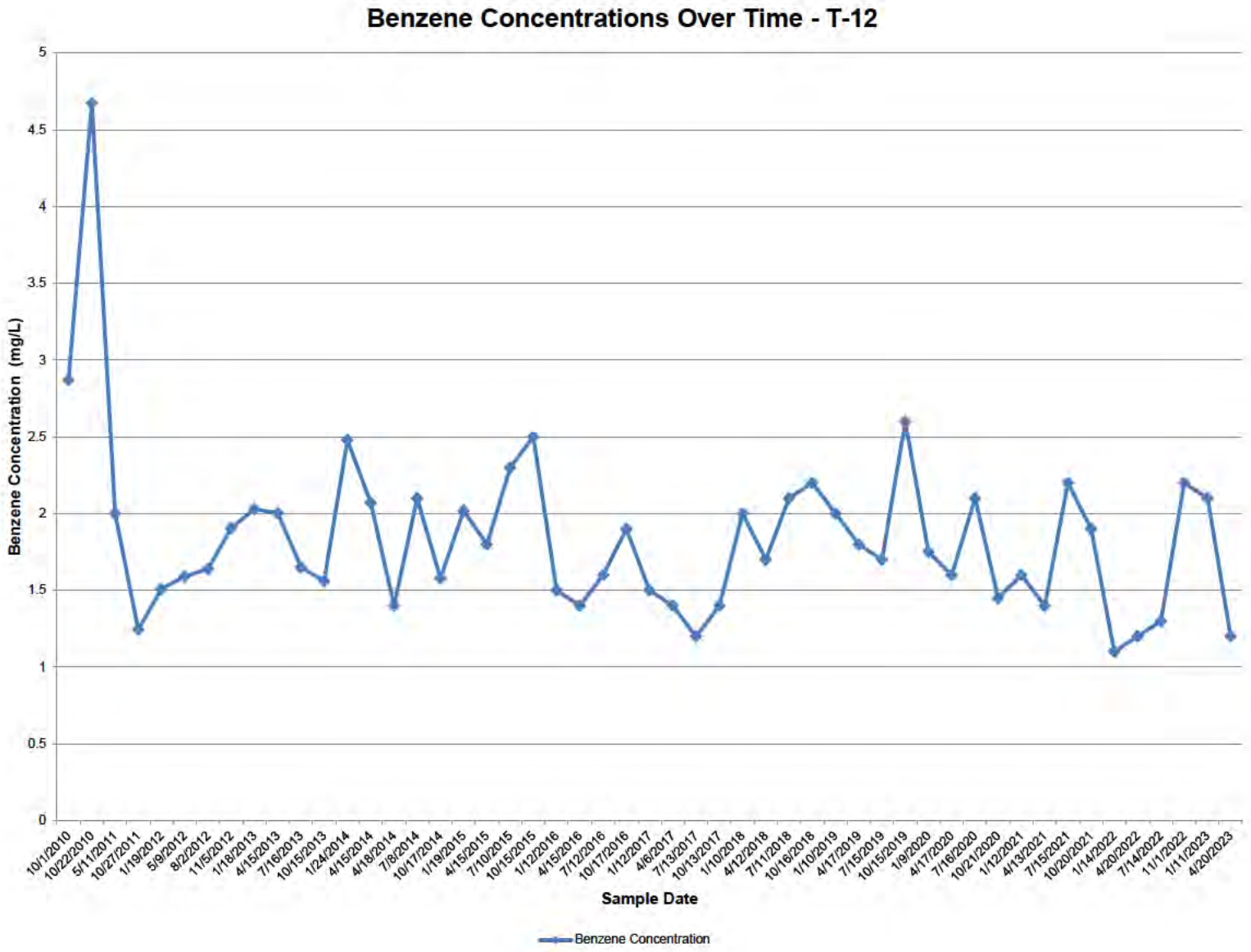


Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.



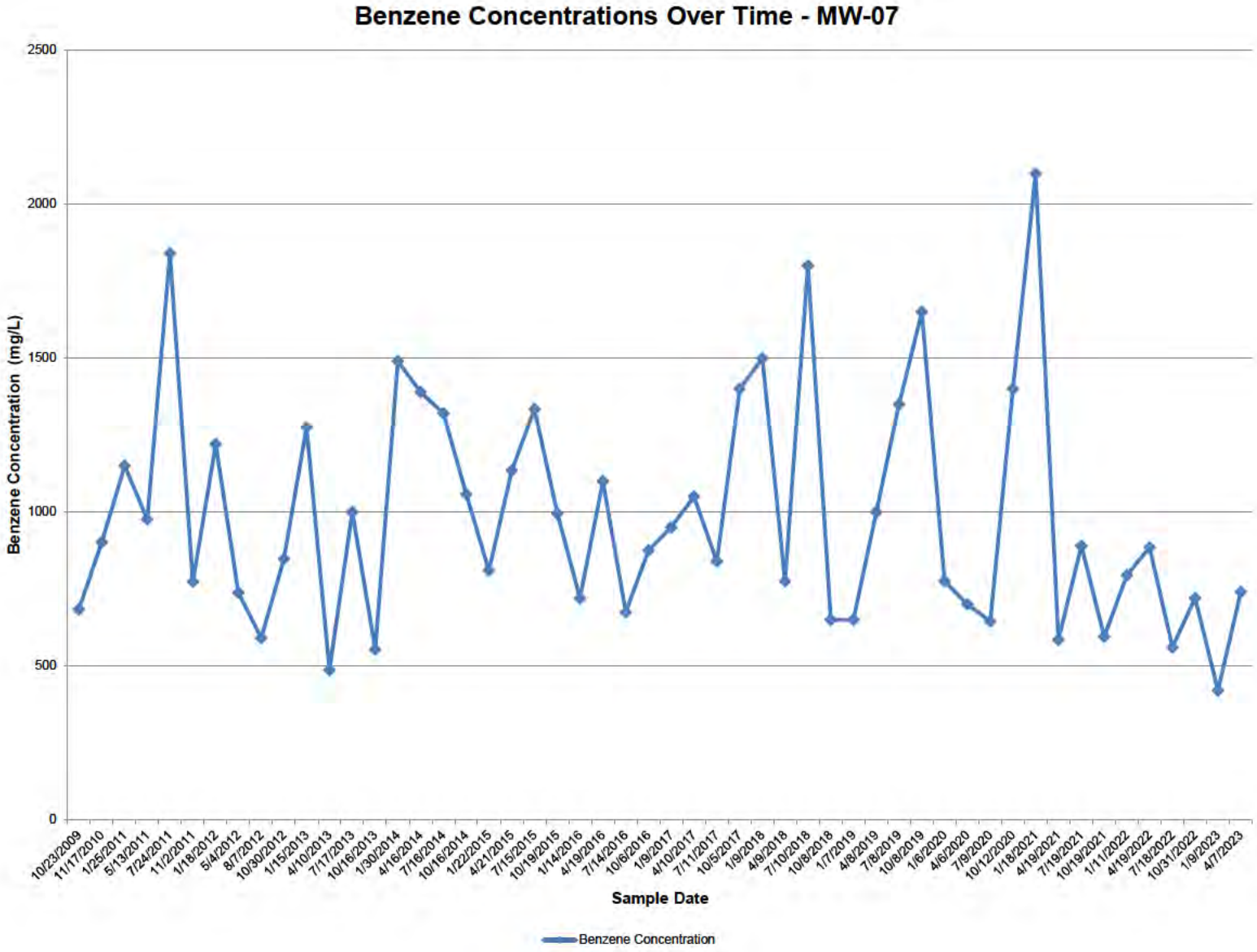
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Public Works Yard Area

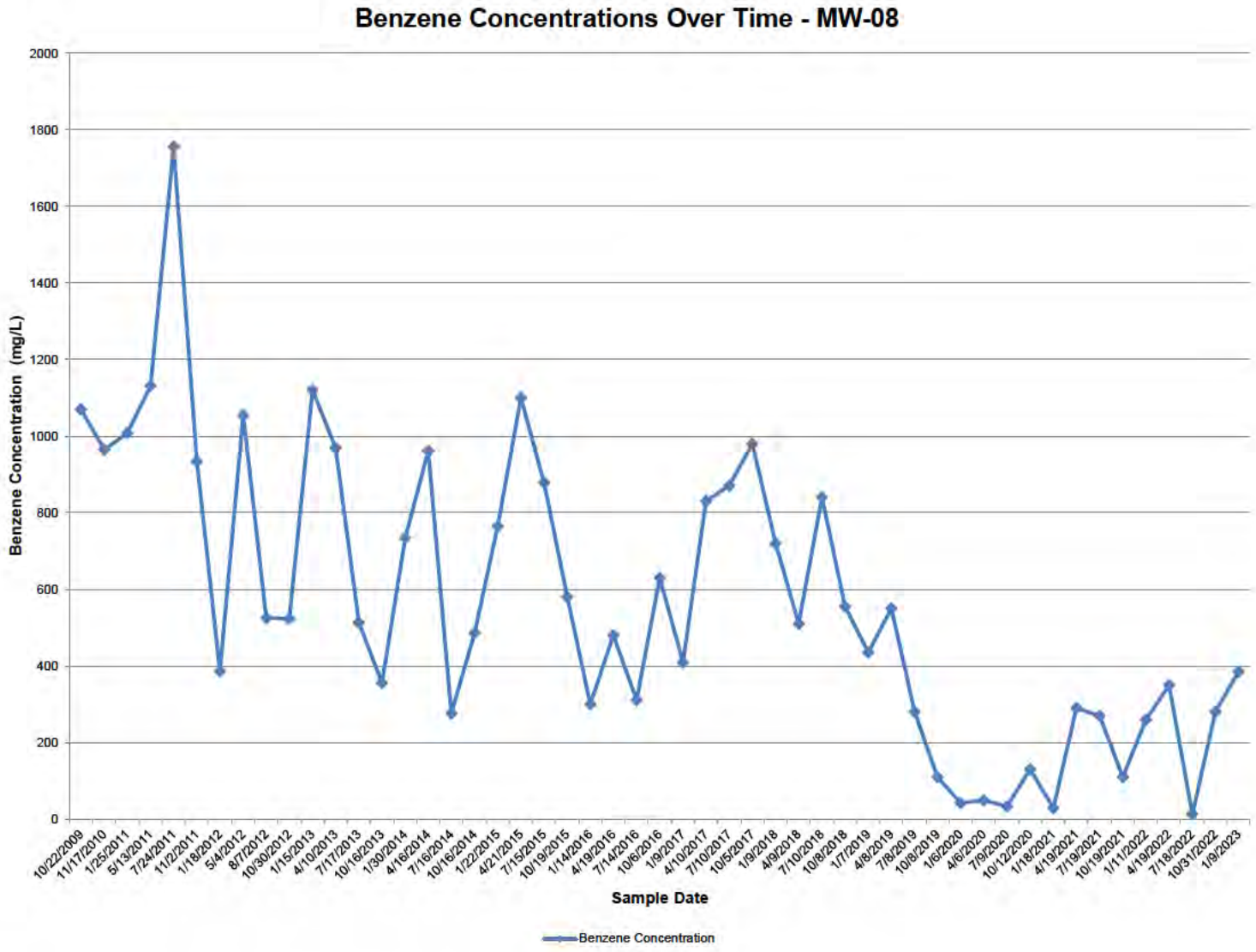


Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.



Notes:

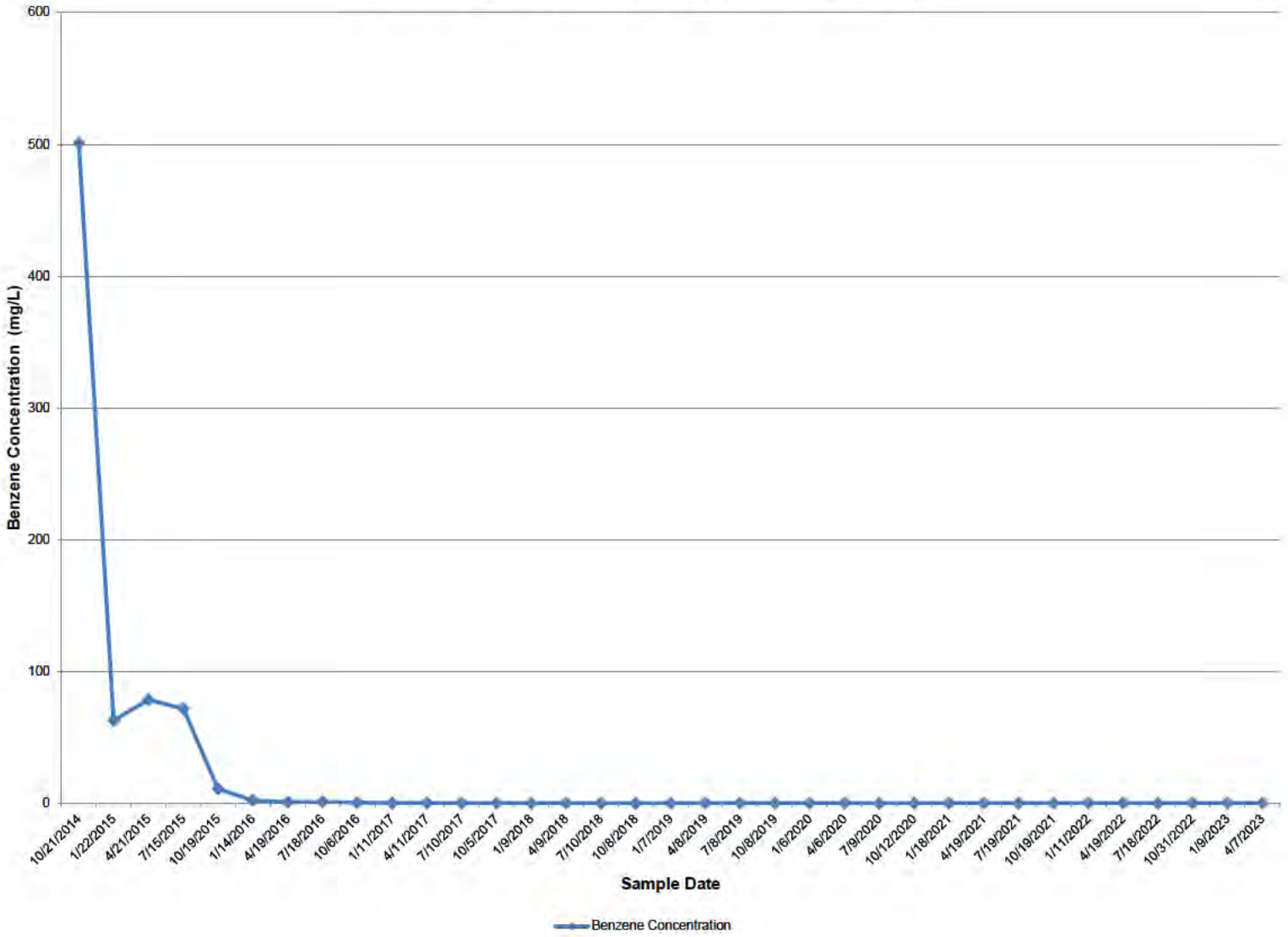
mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Well MW-8 was abandoned on January 10, 2023 after 1Q23 quarterly sampling. Abandonment of MW-8 was approved with conditions in the August 22, 2022 EPA letter (IEPA 2022) in response to the PWY SEE Work Plan (AECOM 2022a); installation of MW-8A and MW-8B is planned as part of the post-SEE system activities.

Benzene Concentrations Over Time - MW-25



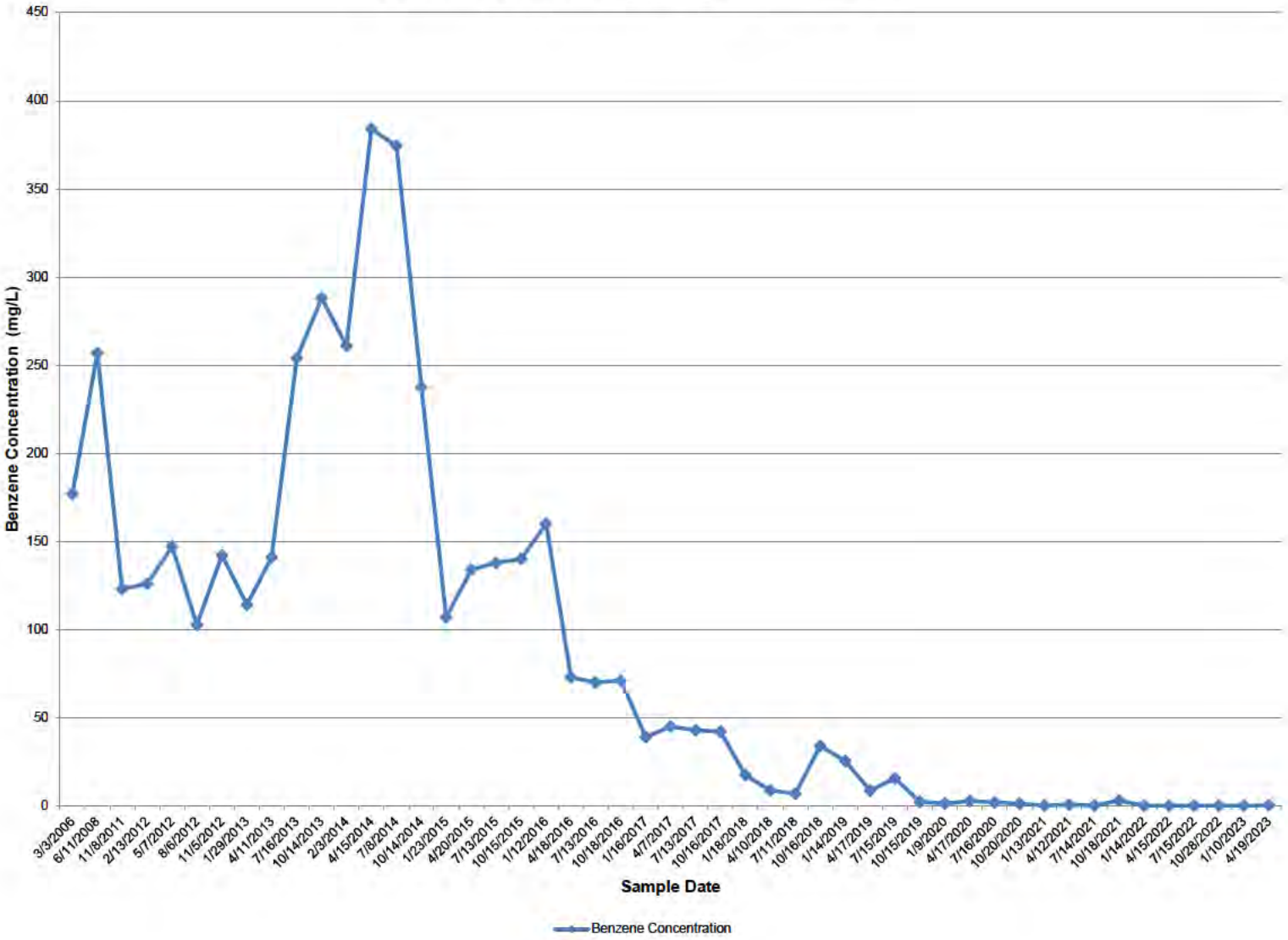
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Benzene Concentrations Over Time - P-57



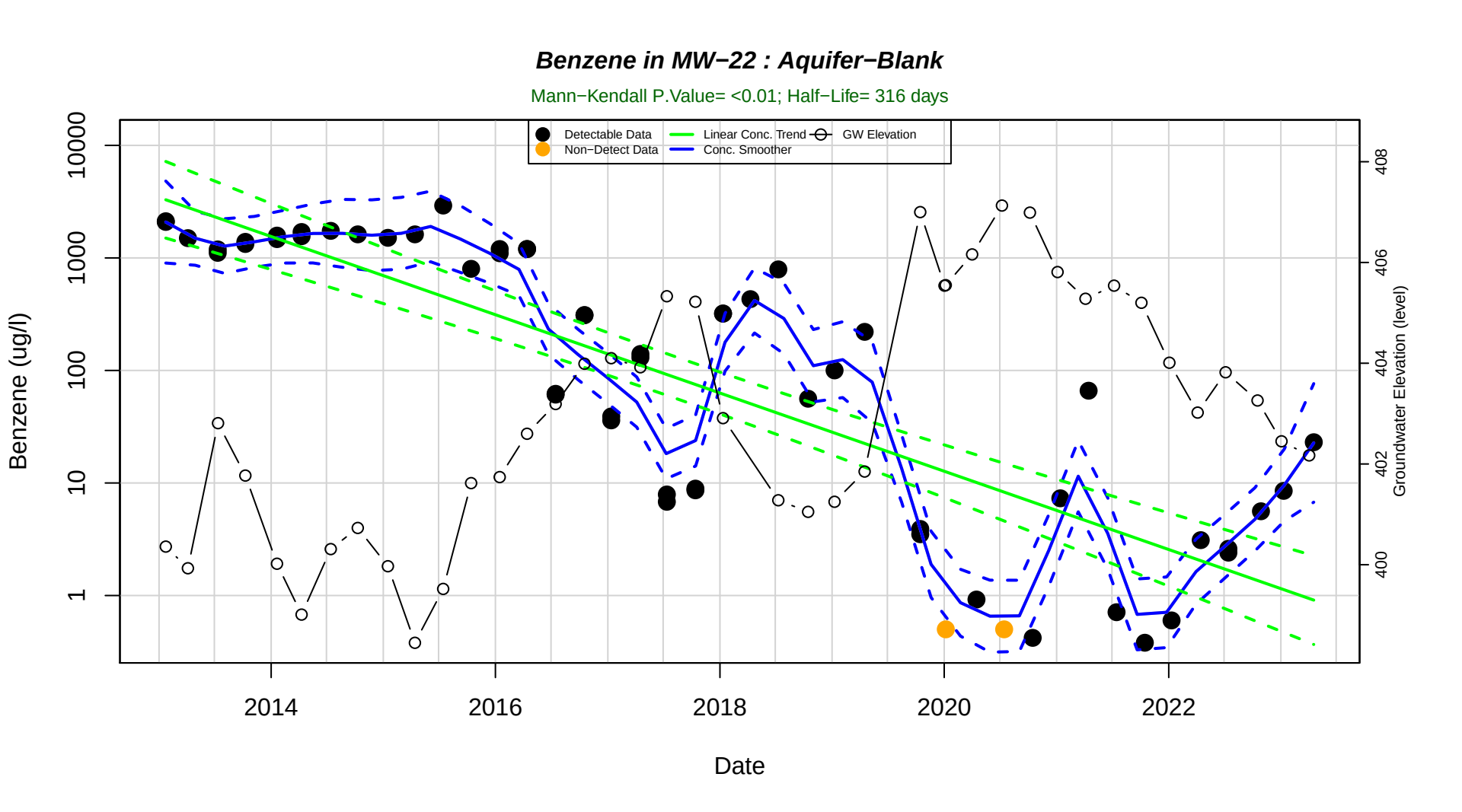
Notes:

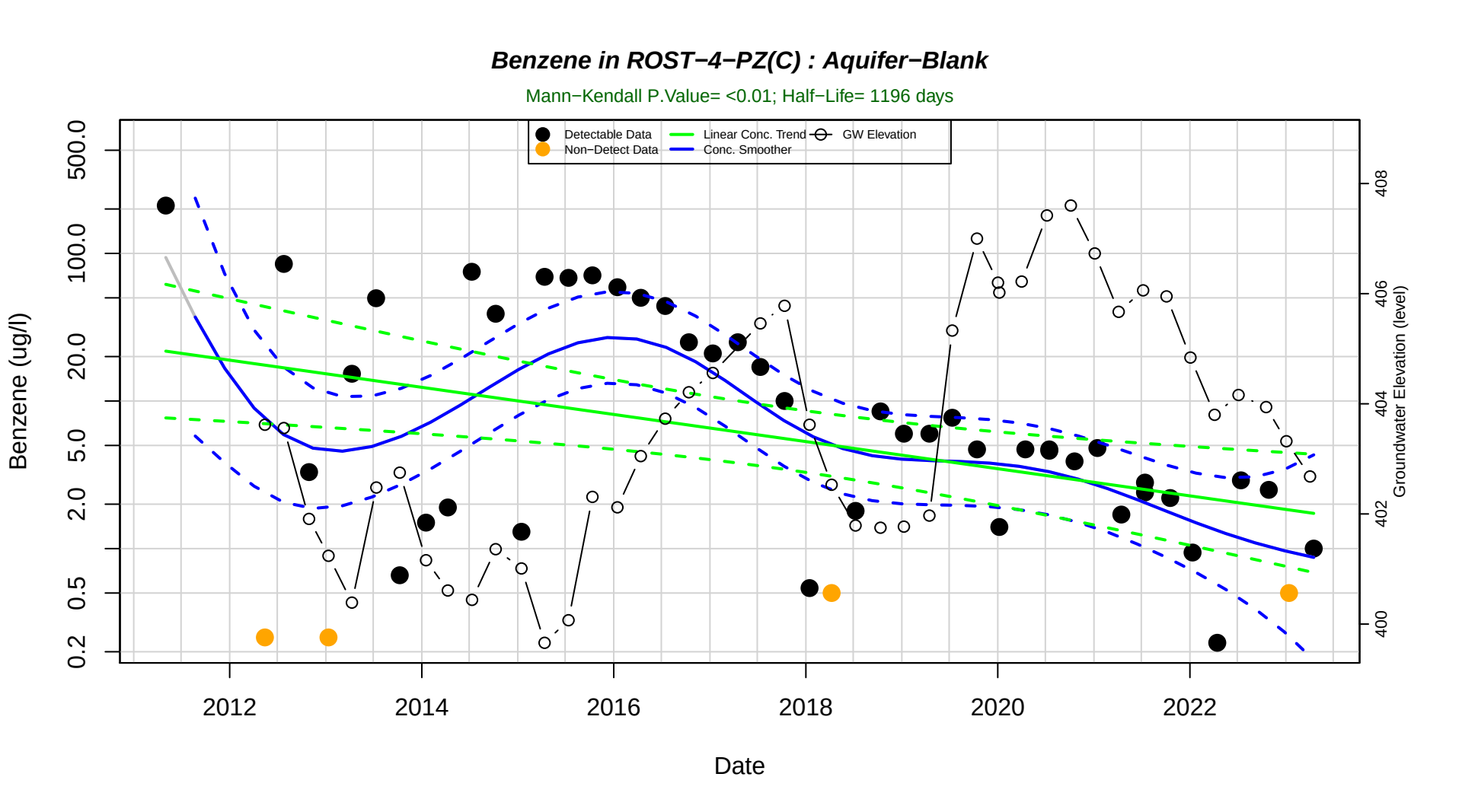
mg/L = milligrams per liter

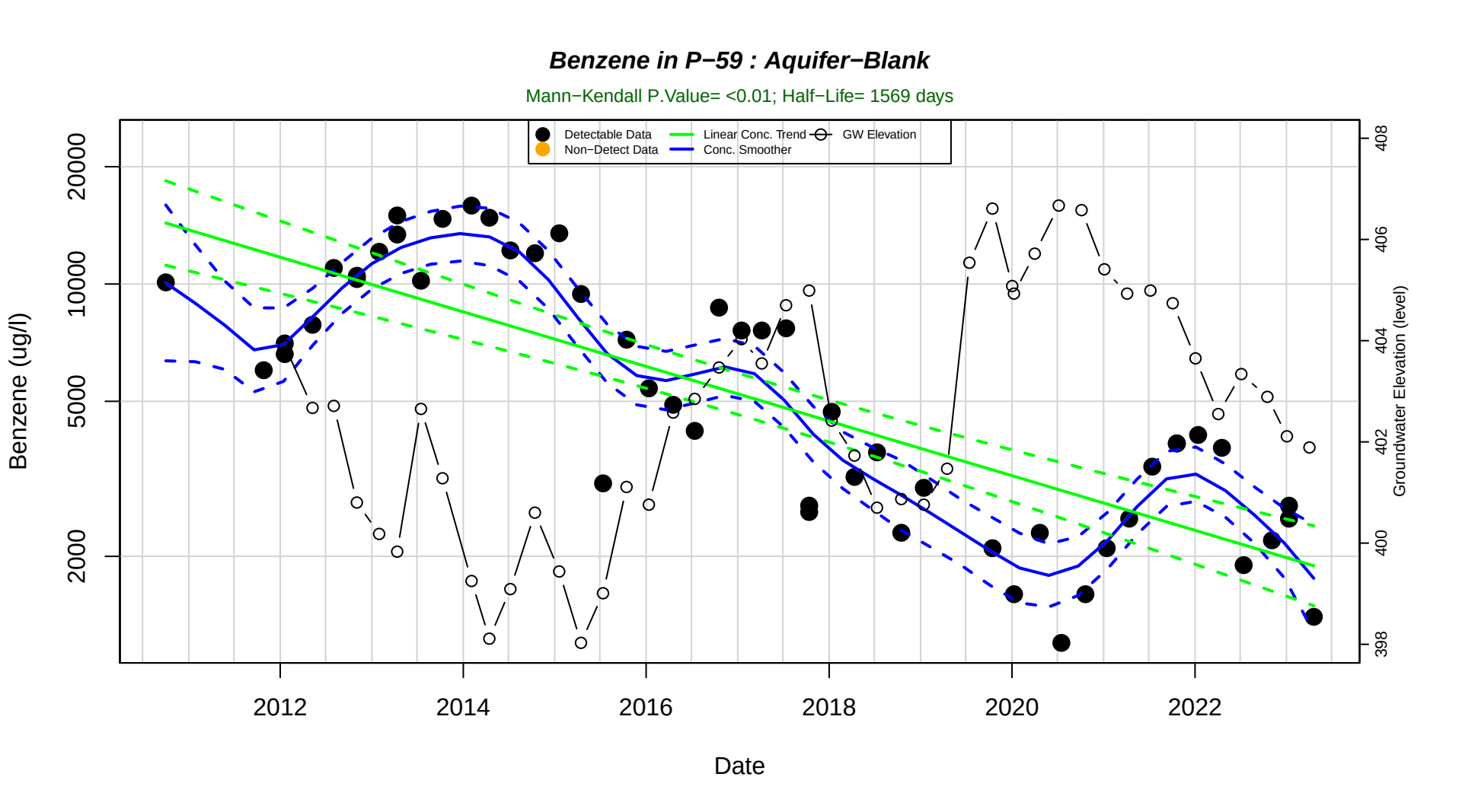
Duplicate values were averaged.

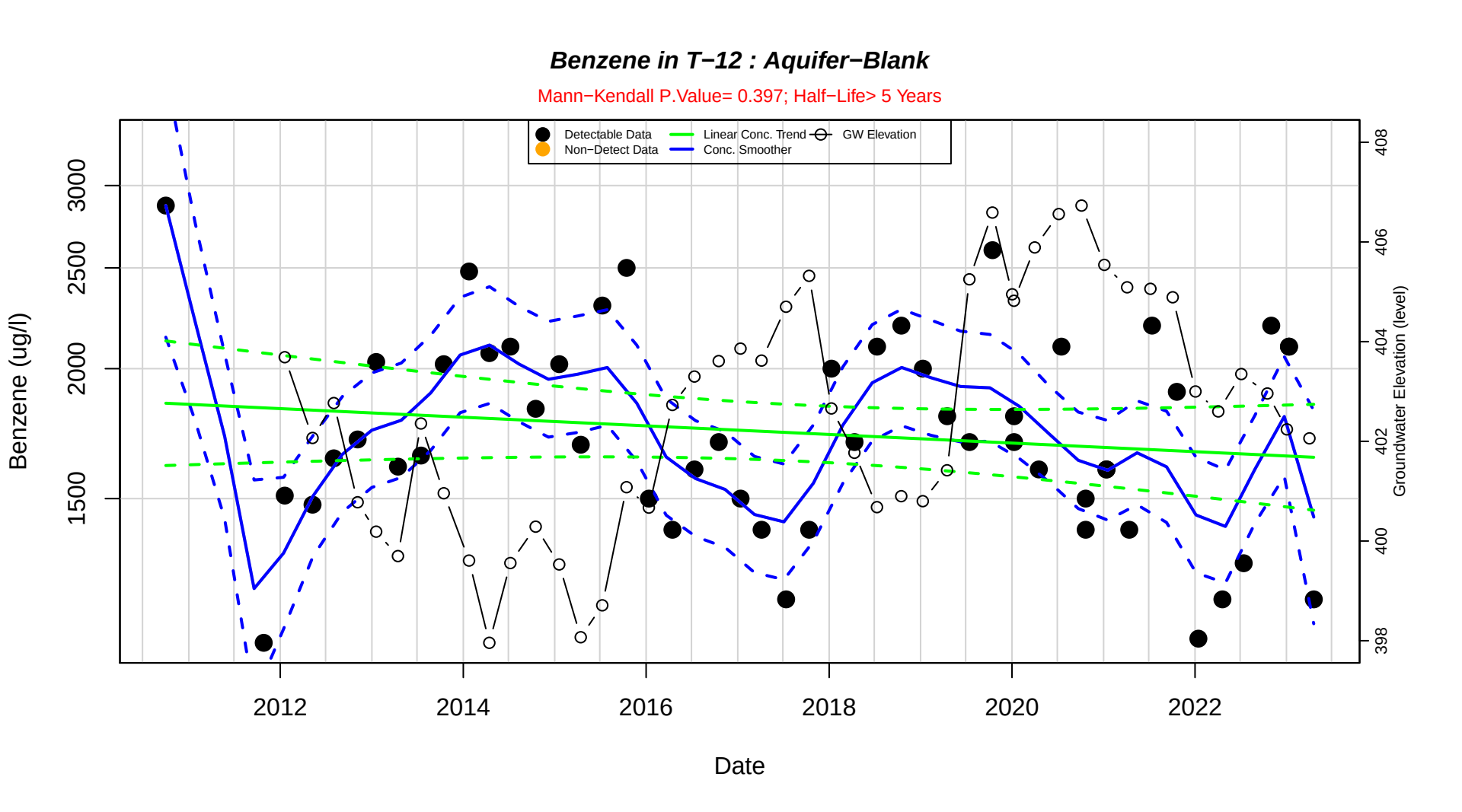
Timeframe specific to available data.

4th Street Area

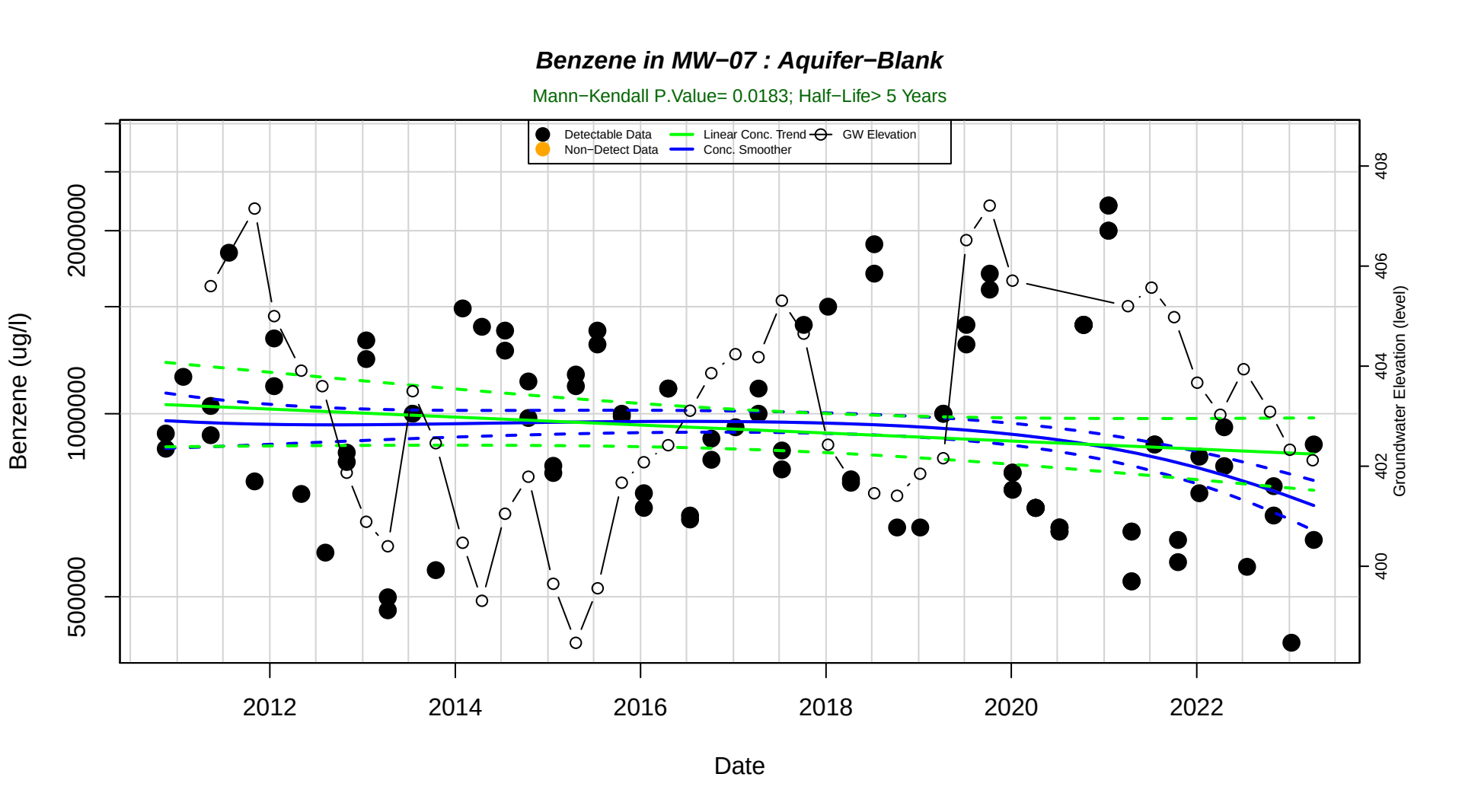

Benzene in MW−22 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 316 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
10000
1000
100
10
1
Groundwater Elevation (level)
408
406
404
402
400
2014
2016
2018
2020
2022
Date

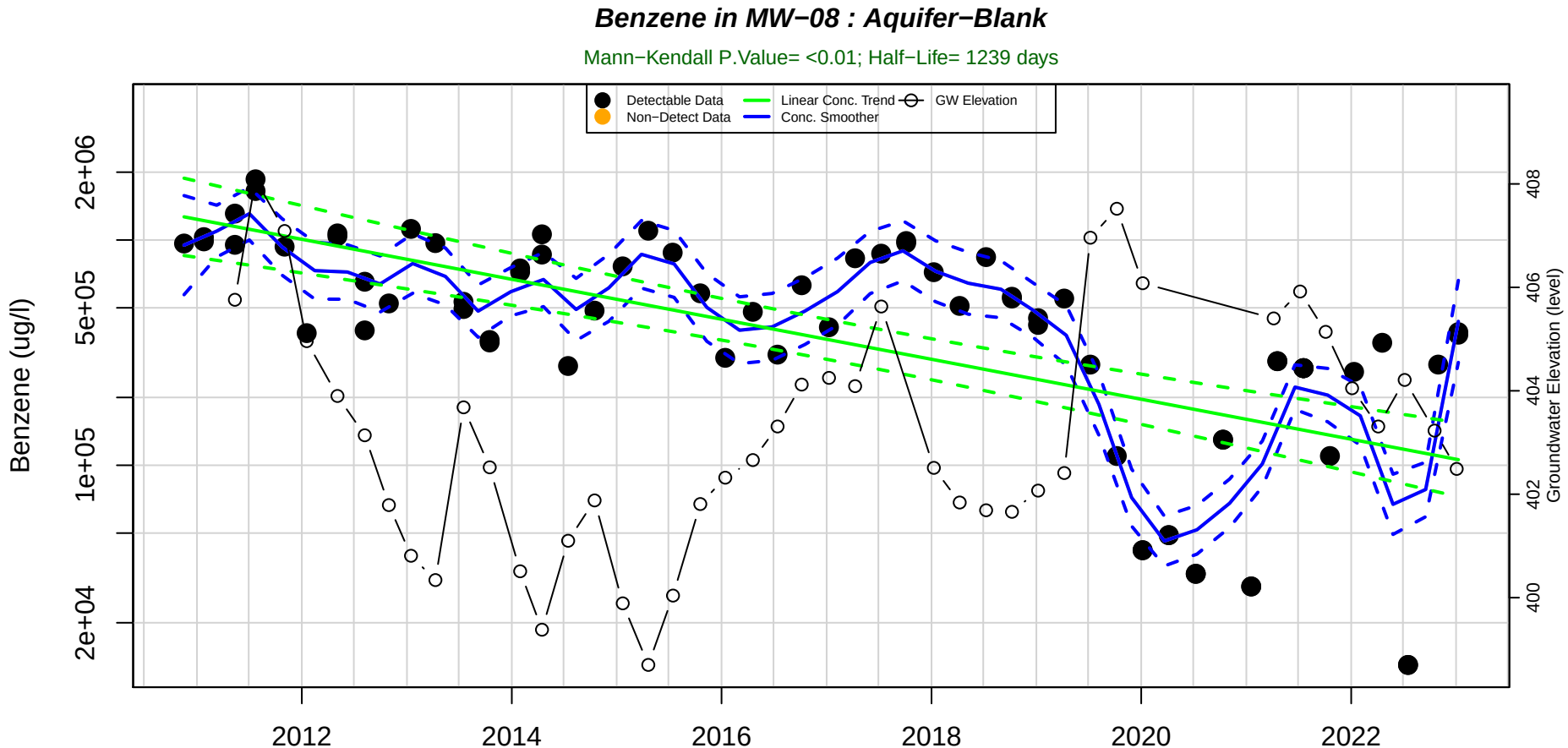

Benzene in ROST−4−PZ(C) : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1196 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
0.2
0.5
2.0
5.0
20.0
100.0
500.0
Groundwater Elevation (level)
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date


Benzene in P−59 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1569 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
Groundwater Elevation (level)
Date
2000
5000
10000
20000
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022

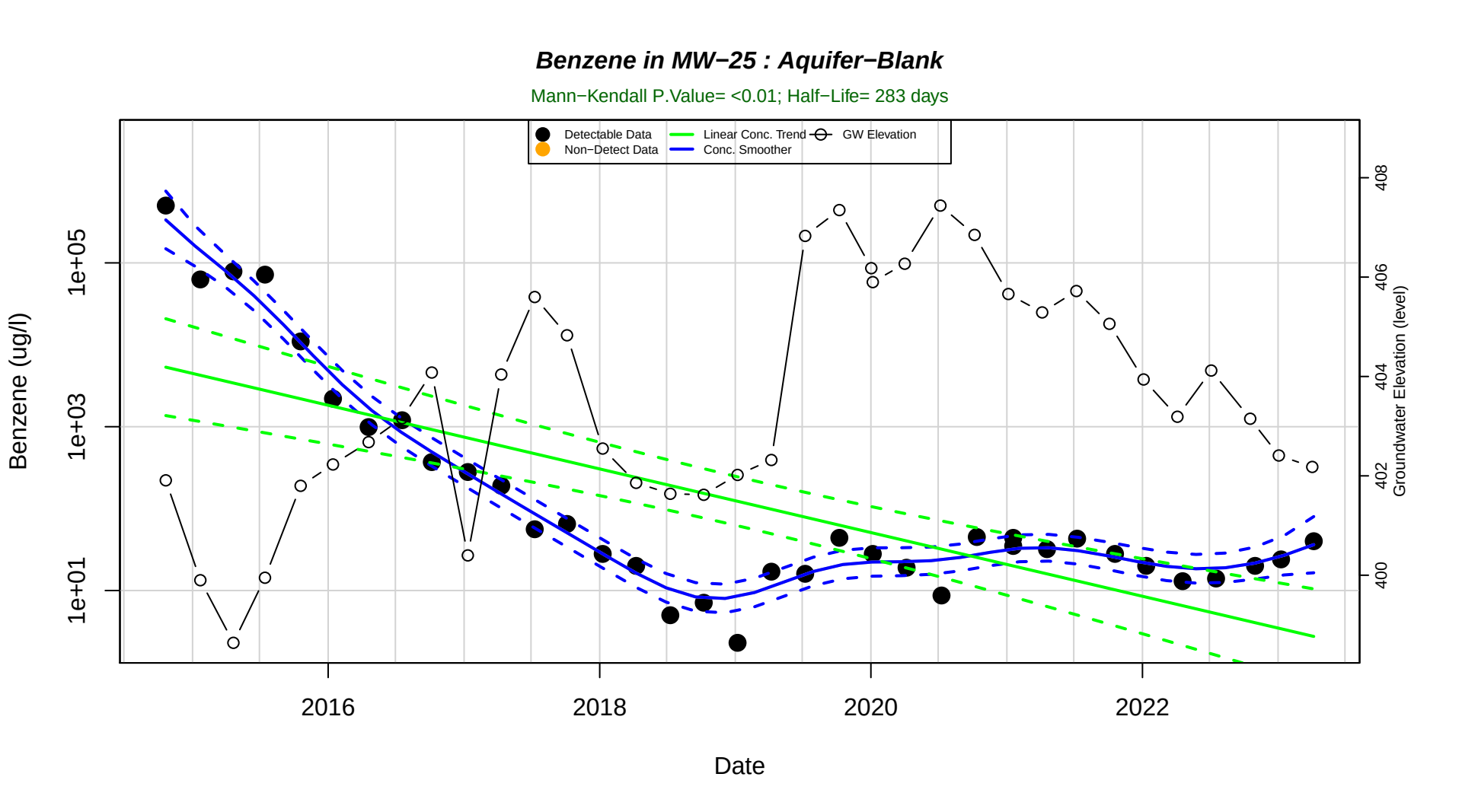

Benzene in T−12 : Aquifer−Blank
Mann−Kendall P.Value= 0.397; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
1500
2000
2500
3000
Groundwater Elevation (level)
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date

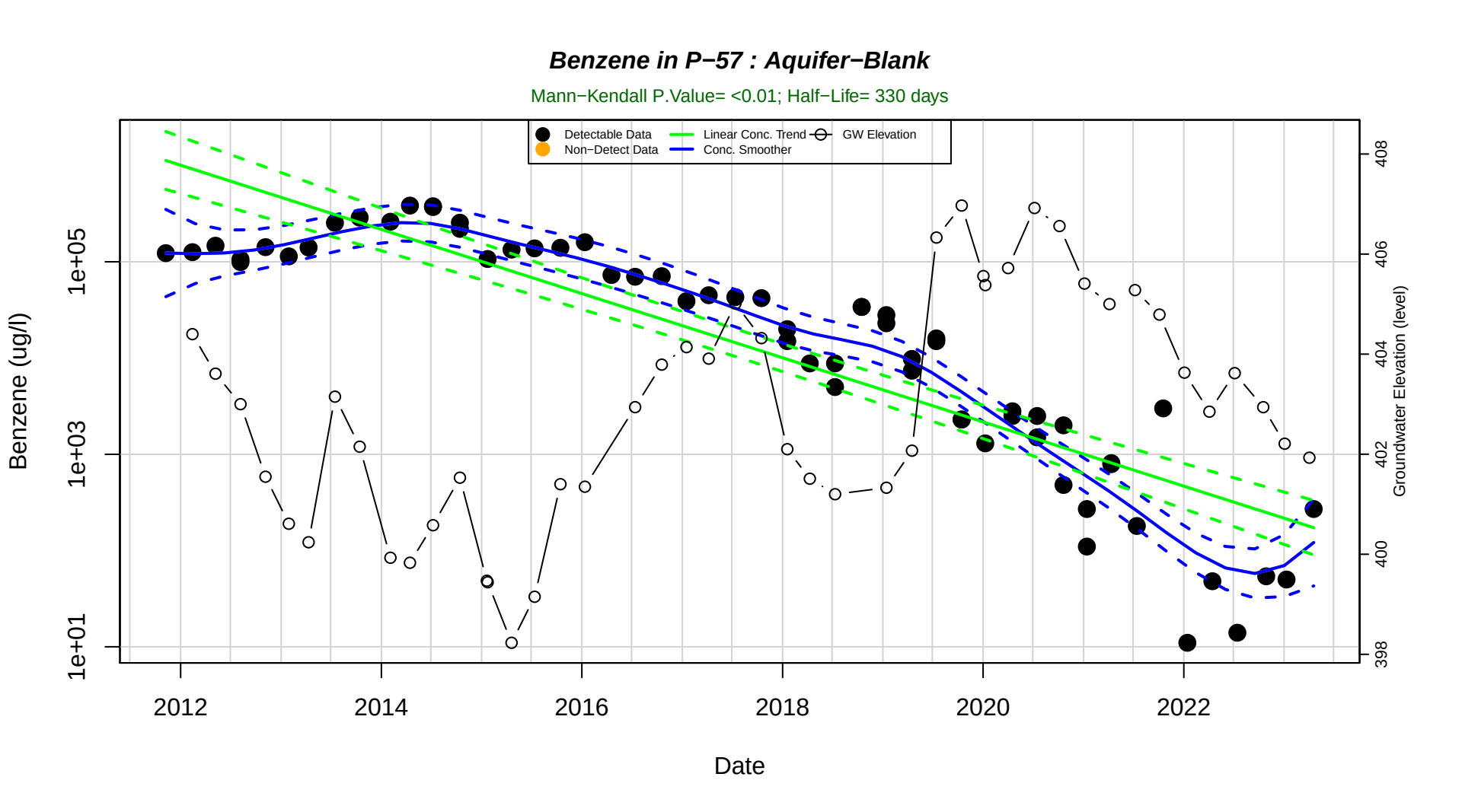
Public Works Yard Area


Benzene in MW−07 : Aquifer−Blank
Mann−Kendall P.Value= 0.0183; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
500000
1000000
2000000
Groundwater Elevation (level)
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date



Note: Well MW-8 was abandoned on January 10, 2023 after 1Q23 quarterly sampling. Abandonment of MW-8 was approved with conditions in the August 22, 2022 IEPA letter (IEPA 2022) in response to the PWY SEE Work Plan (AECOM 2022a).


Benzene in MW−25 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 283 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
1e+01
1e+03
1e+05
Groundwater Elevation (level)
400
402
404
406
408
2016
2018
2020
2022
Date


Benzene in P−57 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 330 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
1e+01
1e+03
1e+05
Groundwater Elevation (level)
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date

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